



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

## 2013 MOSES LAKE AQUATIC INVASIVES CONTROL USING HERBICIDE

Moses Lake Irrigation & Rehabilitation District  
Moses Lake, Washington

### FINAL REPORT

#### **Introduction**

On June 17<sup>th</sup>, 18<sup>th</sup> and 20<sup>th</sup>, 2013 Lakeland Restoration Services, LLC (LRS) performed an aquatic herbicide treatment in the continued effort to control aquatic invasive nuisance pond weeds specifically, Eurasian water milfoil and Elodea on Moses Lake. The goals of this report are to describe the work performed by LRS before, during and after treatment.

*Photo courtesy of Julie Smith MLIRD*



#### **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 6<sup>th</sup>, 2013 (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.
- The herbicide Clipper was added to the notice of intent and submitted to the Washington State Department of Ecology. It was not used in the treatment.

#### **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](http://www.lakelandrs.com), dedicated specifically to the Moses Lake invasive nuisance pond 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](mailto: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 6<sup>th</sup>, 2013. 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 for this project:

- David L. Klutz – license #66448 – Applicator/Airboat Pilot
- Steve McClain – license #82871. – Shoreline Posting
- Jake Nesbitt - Mixer/Loader Cert. – Mixer/Loader
- Cathy Allen - Mixer/Loader Cert. – Mixer/Loader
- Jesse Allen - Mixer/Loader Cert. – Mixer/Loader
- Jalen Allen - Mixer/Loader Cert. – Mixer/Loader

**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):

Area	Avg Depth	Surface Acres	Aquathol (gallons)	Diquat (gallons)	2,4-D (gallons)
1_1	3	10.7	61	11	
1_2	3	9.7	55	10	
2_1	4	9.6		5	77
2_2	4	10.7		5	86
2_3	4	10.6		5	85
2_4	4	10		5	80
2_5	4	9.9		5	79
2_6	4	9.6		5	77
2_7	4	9.8		5	78

3_1	5	9.8	78	9	
3_2	5	10.2	81	10	
3_3	5	10.5	84	10	
3_4	5	9.3	74	9	
3_5	5	7.2	57	7	
3_6	5	9	72	9	
3_7	5	10.5	84	10	
4_1	7	7.7		7	135
4_2	7	7.9		7	138

Application rates per area:

Area 1	Aquathol	1.9 Gal/Acre Foot
	Diquat	1 Gal/Acre
Area 2	2,4-D	2 Gal/Acre Foot
	Diquat	.5 Gal/Acre
Area 3	Aquathol	1.6 Gal/Acre Foot
	Diquat	1 Gal/Acre
Area 4	2,4-D	2.5 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.

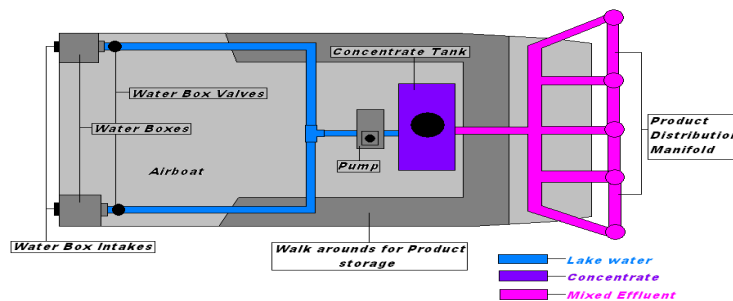
\*Changes in acreage or product occurred due to boat drift, submerged obstacles, mapping discrepancies, or changes made at the request of the Project Manager.

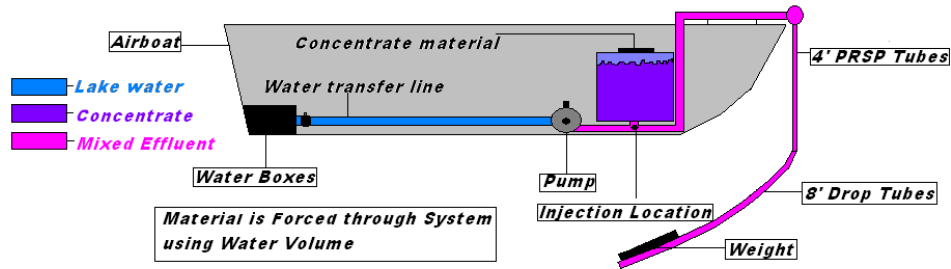
**Treatment Methodology**

The application of Aquathol, Diquat and 2, 4-D 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 MLIRD facility for recycling.

### Equipment

The following equipment was used for this project:

- 16-foot Airboat with 364 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
- 2010 Ford F350 and 2008 Ford F350 used to haul equipment and supplies



### 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. Treatment area and treatment track maps were forwarded to Mr. Carpenter.

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 August 8<sup>th</sup> and August 23<sup>rd</sup>, 2013 LRS performed a combined total 50 acre treatment on Moses Lake to manage Blue Green Algae blooms with algaecides as directed by MLIRD. Phycomycin was applied at a rate of 100 pounds per acre resulting in a total of 5,000 pounds of Phycomycin used in treatments.

### Summary

This year's treatments were directed at some Eurasian water milfoil resurgence off the peninsula, as well as treatment in Mont Lake. Curly Leaf pond weed and Sago pond weed was treated in "the fill" to facilitate

better operation by the dredge. Areas outside “the fill “were treated to enhance water quality by the water fountain, near residential areas and downtown Moses Lake.

Overall, EWM populations have been severely controlled since 2009. Lake surveys will be required to identify new infestations and treat when necessary. Pondweeds will be persistent, requiring continued applications to keep waterways open and reduce harvester hours, wear and tear and man hours.

Phycomycin applications near swimming areas greatly enhanced water quality in application areas, discouraging algae growth. *Photos below along Stratford fill, courtesy of Julie Smith MLIRD.*



*Before algae treatment 8-08-2013*



*after algae treatment 8-12-2013*



*Treatment 8-08-2013*



Appendix A  
Business and Residential Notice



## Herbicide Treatment

### Business and Residential Notice

Distribution Date: June 6, 2013

Moses Lake will be treated with aquatic herbicide/algaecide on/or between June 17<sup>th</sup> – 21<sup>st</sup>.  
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 , 2,4-D and Flumioxazin**

**Algaecide: Phycomycin**

**Active ingredient(s): (Dipotassium salt of endothal),(Diquat dibromide [6,7-dihydrodipyrdo (1,2-a:2'1'-c) pyrazinedium dibromide]),(2,4-Dichloropheoxyacetic acid, dimethylamine salt), (2-[7- fluoro-3,4-dihydro-3-oxo-4(2-propynyl)-2H-1,4-benzoxazin-6-yl]-4,5,6,7-tetrahydro-1H-isoin-dole-1,3(2H)-dione)**

**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](mailto:info@lakelandrs.com)**

**Details** of treatment time and the end of use restrictions will be announced at [www.lakelandrs.com](http://www.lakelandrs.com).

**Fishing:** no restriction.

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

Treated and potentially affected areas will be sign posted 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 using the information above.

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

## Appendix B

### Pre/Post Treatment Notification

# DEPARTMENT OF ECOLOGY

## Aquatic Treatment Fax Form

To: [Jonathon.jennings@ecy.wa.gov](mailto:Jonathon.jennings@ecy.wa.gov), [Jeremy.ryf@ecy.wa.gov](mailto:Jeremy.ryf@ecy.wa.gov)

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From: **Company: Lakeland Restoration Services, LLC**  
**208-448-2222**

### Pre-Treatment Notification

Week of Treatment (date and year): **June 17, 2013**

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, Reward Clipper, and DMA-4 IVM	pondweed, elodea, Eurasian watermilfoil	June 17, 2013 - 8am

**Email Form**

**Email to: [JOJE461@ecy.wa.gov](mailto:JOJE461@ecy.wa.gov),[JRYF461@ecy.wa.gov](mailto:JRYF461@ecy.wa.gov)**

**From:**

**Company: Lakeland Restoration Services**

**Office Phone No: 208-448-2222**

**Post-Treatment Notification**

**Week of Treatment: June 17, 2013**

<b>Water body name</b>	<b>County</b>	<b>Chemicals/products used</b>	<b>Targeted plants* &amp; algae</b>	<b>Acres treated</b>	<b>Amount of product applied (lbs. or gallons)</b>	<b>Date treatment occurred</b>
<b>Moses Lake</b>	<b>Grant</b>	<b>Aquathol K</b>	<b>pondweed, elodea, Eurasian watermilfoil</b>	<b>172</b>	<b>646 gallons</b>	<b>June 17-18, 2013</b>

		<b>Diquat - Reward</b>			<b>159 gallons</b>	
		<b>2,4-D – DMA4-IVM</b>			<b>650 gallons</b>	

**\* 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.**

**Email Form**

**Email to: [JOJE461@ecy.wa.gov](mailto:JOJE461@ecy.wa.gov),[JRYF461@ecy.wa.gov](mailto:JRYF461@ecy.wa.gov)**

**From:**

**Company: Lakeland Restoration Services**

**Office Phone No: 208-448-2222**

**Post-Treatment Notification**

**Week of Treatment: June 17, 2013**

<b>Water body name</b>	<b>County</b>	<b>Chemicals/products used</b>	<b>Targeted plants* &amp; algae</b>	<b>Acres treated</b>	<b>Amount of product applied (lbs. or gallons)</b>	<b>Date treatment occurred</b>
<b>Moses Lake</b>	<b>Grant</b>	<b>Aquathol K</b>	<b>pondweed, elodea, Eurasian watermilfoil</b>	<b>10</b>	<b>80 gallons</b>	<b>June 20, 2013</b>

# DEPARTMENT OF ECOLOGY

## Aquatic Treatment Email Form

Email to: [JOJE461@ecy.wa.gov](mailto:JOJE461@ecy.wa.gov), [JRYF461@ecy.wa.gov](mailto:JRYF461@ecy.wa.gov)

From: Lakeland Restoration Services, LLC

Office Phone No: 208-448-2222

### Pre-Treatment Notification

Week of Treatment August 4<sup>th</sup>, 2013

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	August 8 <sup>th</sup> , 2013 - 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*)

**Email Form**

**Email to: [JOJE461@ecy.wa.gov](mailto:JOJE461@ecy.wa.gov),[JRYF461@ecy.wa.gov](mailto:JRYF461@ecy.wa.gov)**

**From:**

**Company: Lakeland Restoration Services**

**Office Phone No: 208-448-2222**

**Post-Treatment Notification**

**Week of Treatment: August 4, 2013**

<b>Water body name</b>	<b>County</b>	<b>Chemicals/products used</b>	<b>Targeted plants* &amp; algae</b>	<b>Acres treated</b>	<b>Amount of product applied (lbs. or gallons)</b>	<b>Date treatment occurred</b>
<b>Moses Lake</b>	<b>Grant</b>	Phycomycin	<b>Blue green algae</b>	<b>25</b>	2,500 lbs.	<b>August 8, 2013</b>

**DEPARTMENT OF ECOLOGY**

**Aquatic Treatment Email Form**

**Email to:** [JOJE461@ecy.wa.gov](mailto:JOJE461@ecy.wa.gov), [JRYF461@ecy.wa.gov](mailto:JRYF461@ecy.wa.gov)

**From: Lakeland Restoration Services, LLC**

**Office Phone No: 208-448-2222**

**Pre-Treatment Notification**

**Week of Treatment (date and year): August 18, 2013**

<b>Water body name</b>	<b>County</b>	<b>Location where treatment will begin</b>	<b>Chemicals/products proposed for use</b>	<b>Targeted plants* &amp; algae</b>	<b>Proposed date &amp; treatment start time</b>
<b>Moses Lake</b>	<b>Grant</b>	<b>Boat Launch</b>	<b>Phycomycin</b>	<b>Blue green algae</b>	<b>August 23, 2013 8 am</b>

\* 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*)

**Email Form**

**Email to: [JOJE461@ecy.wa.gov](mailto:JOJE461@ecy.wa.gov), [JRYF461@ecy.wa.gov](mailto:JRYF461@ecy.wa.gov)**

**From:**

**Company: Lakeland Restoration Services**

**Cell Phone No: 208-448-2222**

**Post-Treatment Notification**

**Week of Treatment: August 18, 2013**

<b>Water body name</b>	<b>County</b>	<b>Chemicals/products used</b>	<b>Targeted plants* &amp; algae</b>	<b>Acres treated</b>	<b>Amount of product applied (lbs. or gallons)</b>	<b>Date treatment occurred</b>
<b>Moses Lake</b>	<b>Grant County</b>	Phycomycin	<b>Blue Green Algae</b>	<b>25</b>	2,500 lbs.	<b>August 23, 2013</b>

Appendix C  
Shoreline Postings

# CAUTION

The aquatic herbicides 2,4-D (amine formulation), Aquathol K, Diquat and Flumioxazin will be applied under permit to these waters on June 17<sup>th</sup> – June 21<sup>st</sup> 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: **Do not use water from treatment area until an approved assay result is below 70ppb.**

Irrigation Restrictions: **Do not use water from treatment area until an approved assay result is below 100ppb.**

Fishing Restriction: **None**

Stock Watering Restrictions: **Do not use water from treatment area for 14 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**

Appendix D  
Public Access Posting

## CAUTION

The aquatic herbicides 2,4-D (amine formulation), Aquathol K, Diquat and Flumioxazin will be applied under permit to these waters on June 17<sup>th</sup> – June 21<sup>st</sup> 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: **Do not use water from treatment area until an approved assay result is below 70ppb.**

Irrigation Restrictions: **Do not use water from treatment area until an approved assay result is below 100ppb.**

Fishing Restriction: **None**

Stock Watering Restrictions: **Do not use water from treatment area for 14 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 2, 4-D (formulación amina), Aquathol K, Diquat y Flumioxazin se aplicará bajo permiso a estas aguas el 17 de junio<sup>th</sup> – 21 de junio<sup>st</sup> para controlar la vegetación acuática.

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

Restricciones de agua potable: **no use agua de la zona de tratamiento hasta que el resultado de un ensayo aprobado está por debajo de 70ppb.**

Restricciones de riego: **no use agua de la zona de tratamiento hasta que el resultado de un ensayo aprobado está por debajo de 100ppb.**

Restricción de la pesca: **ninguno**

Restricciones de riego stock: **no use agua de la zona de tratamiento durante 14 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**

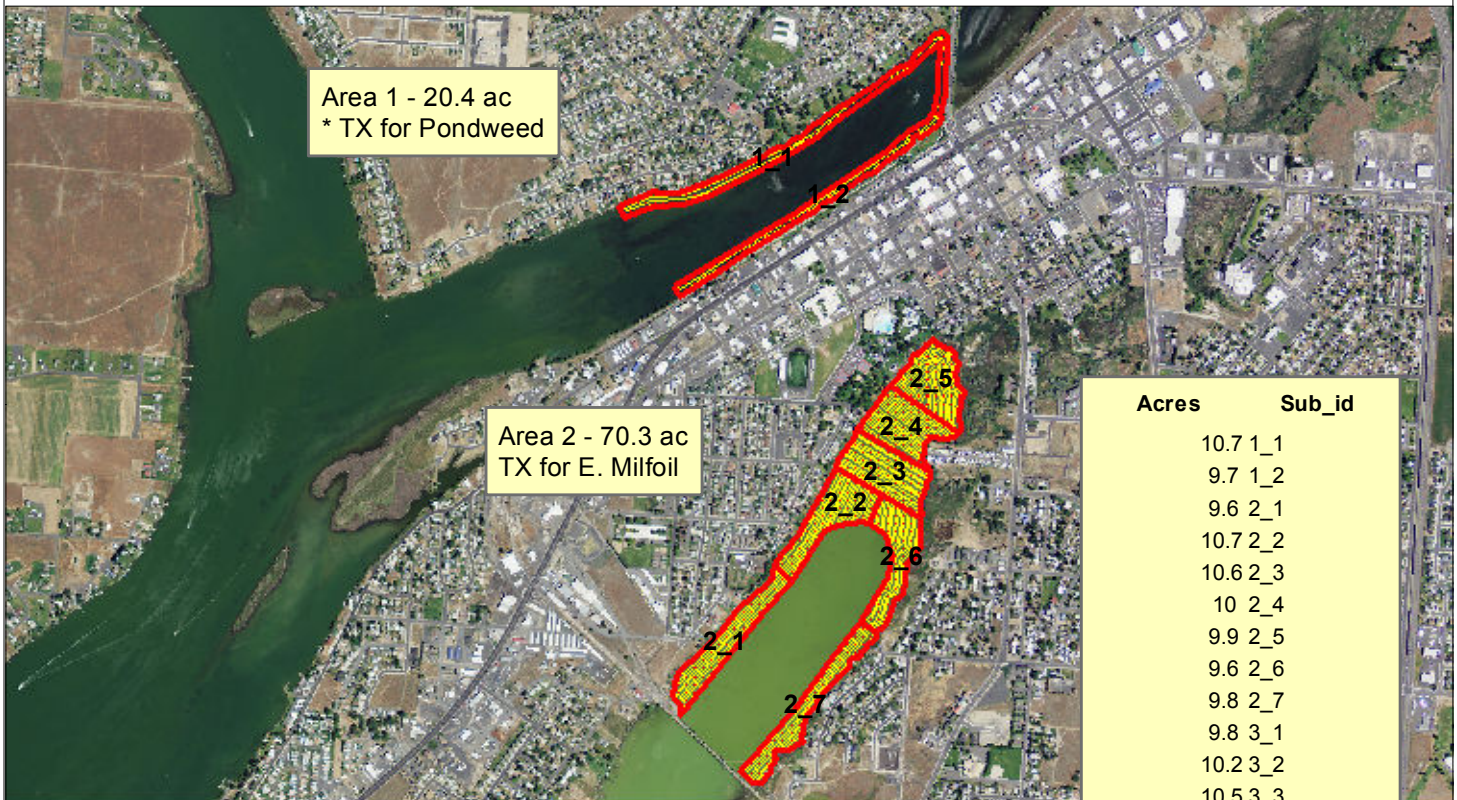
## Appendix E

### Map

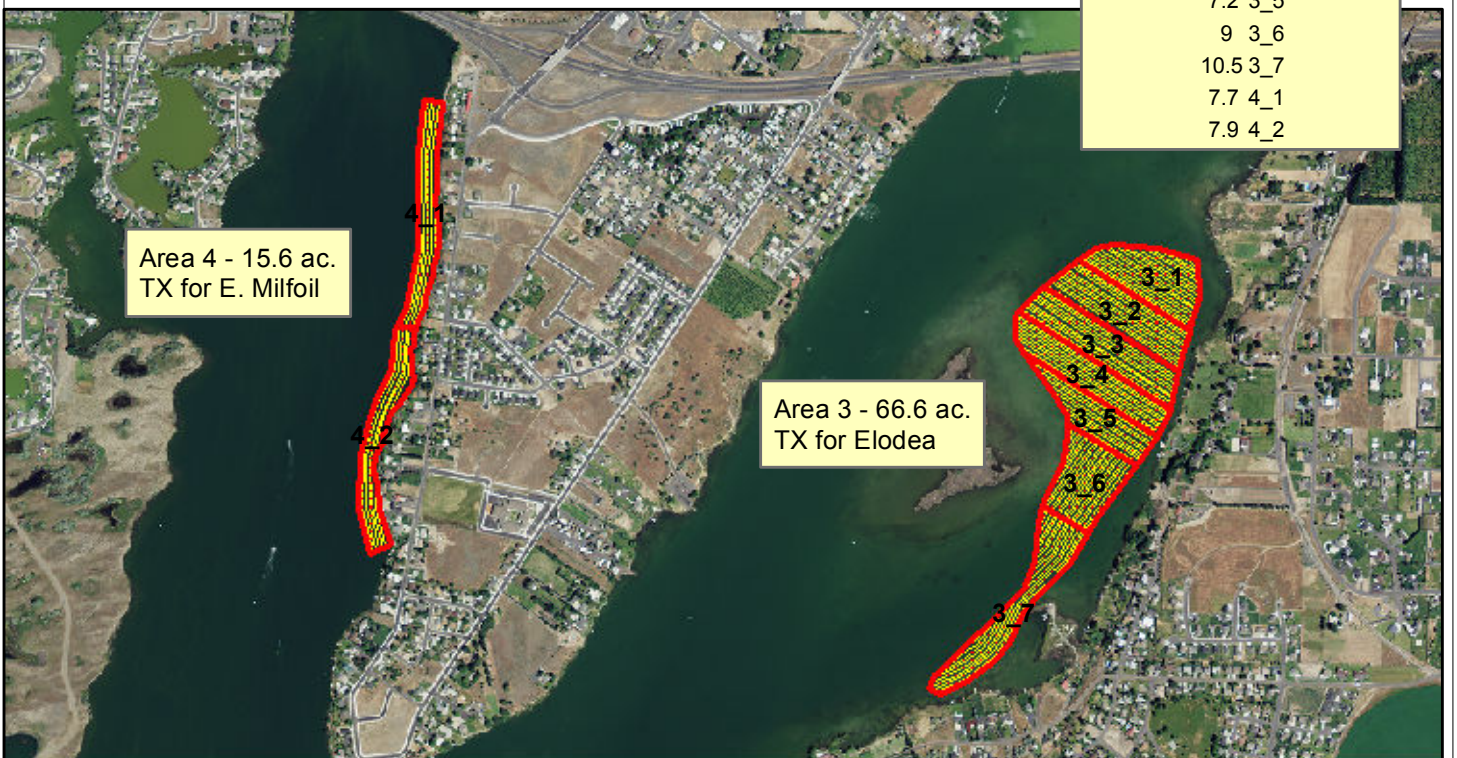
# Moses Lake Aquatic Treatment Areas 2013



## North of I-90 Aquatic Treatment Areas 2013



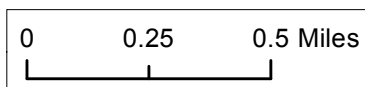
## South of I-90 Aquatic Treatment Areas 2013



### LEGEND

- Proposed Treatment Area (172.6 acres total)
- 30 Foot Boat Tracks

\* TX = treatment



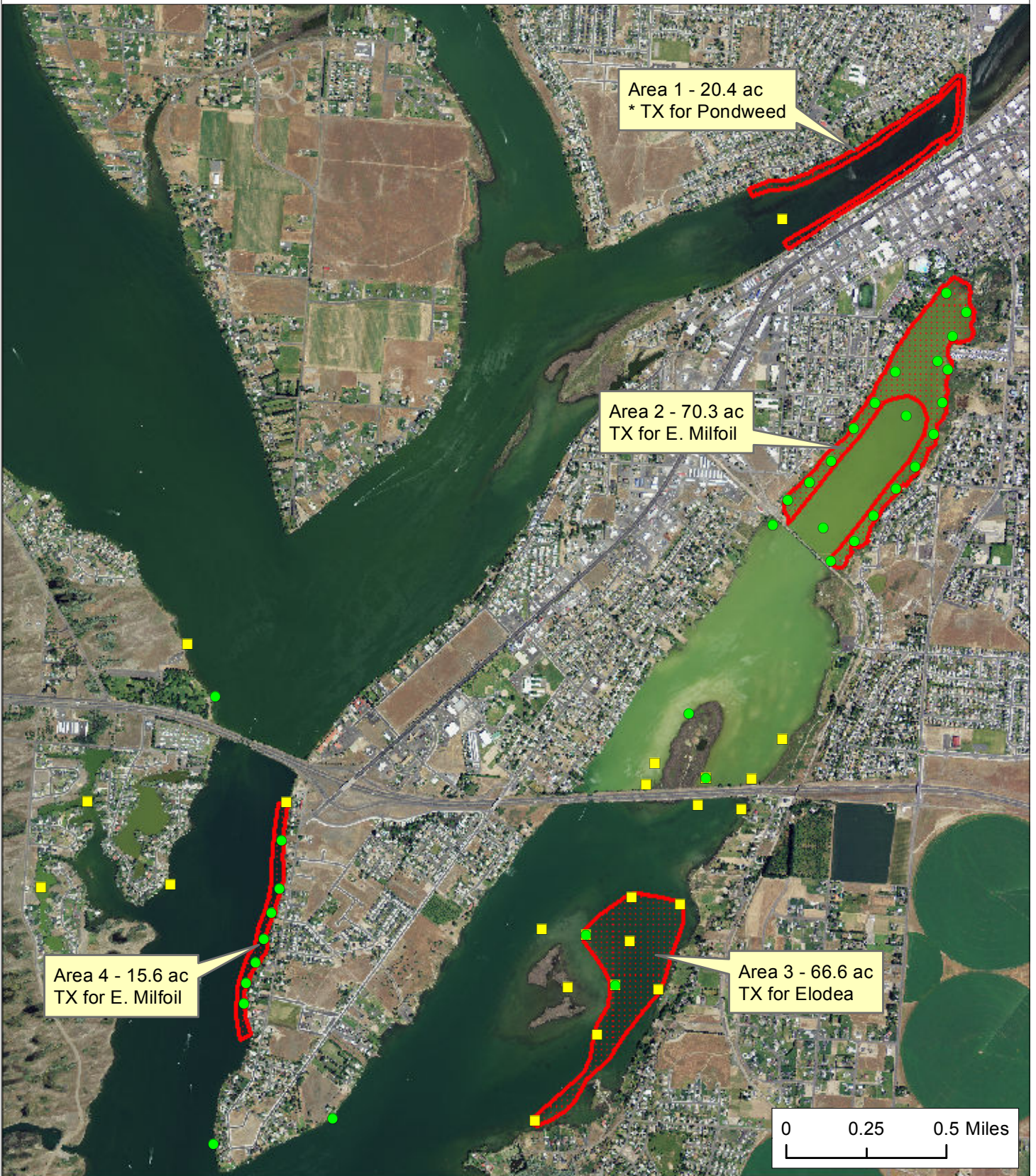
No warranty is made by Lakeland Restoration Services as to the accuracy, reliability, or completeness of these data for individual or aggregate use with other data. Original data was compiled from various sources.

Date: 6/10/2013



# Moses Lake - Proposed Aquatic Treatment Areas 2013

Total Acres 172.6

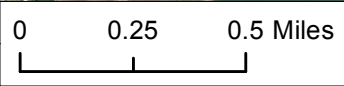


Area 1 - 20.4 ac  
\* TX for Pondweed

Area 2 - 70.3 ac  
TX for E. Milfoil


Area 4 - 15.6 ac  
TX for E. Milfoil


Area 3 - 66.6 ac  
TX for Elodea



### LEGEND

 Proposed Treatment Area (172.6 acres total)

 E. Milfoil Location (2012 Survey, LRS)

 Elodea Location (2012 Survey, LRS)

\* TX = treatment

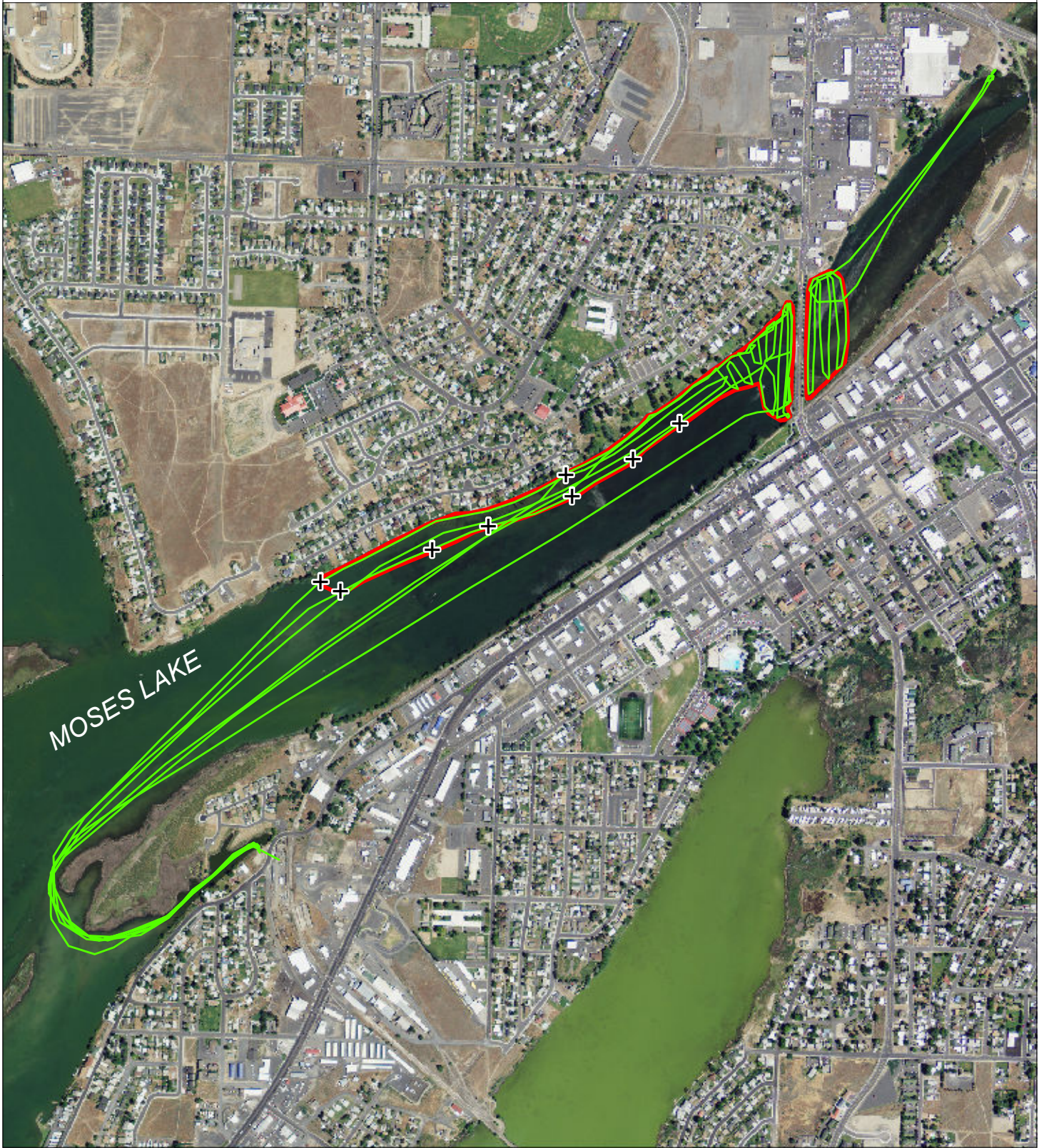


No warranty is made by Lakeland Restoration Services as to the accuracy, reliability, or completeness of these data for individual or aggregate use with other data. Original data was compiled from various sources.

Date: 5/1/2013

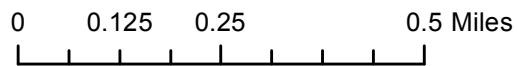


# Moses Lake - August 8, 2013 Phycomyacin Algaecide Treatment



## LEGEND

- GPS Point
- GPS Boat Tracks
- Treatment Area



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: 8/19/2013

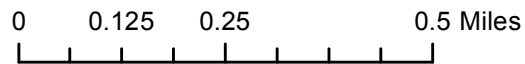


# Moses Lake - August 23, 2013 Phycomyacin Algecide Treatment



### LEGEND

-  GPS Boat Track
-  Treatment Area



Date: 8/26/2013

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.

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: \_\_\_\_\_ Month: \_\_\_\_\_ Day: \_\_\_\_\_ Start Time: \_\_\_\_\_

Stop Time: \_\_\_\_\_

2. Name of person for whom the pesticide was applied: \_\_\_\_\_

Firm Name (if applicable): \_\_\_\_\_

Street Address: \_\_\_\_\_ City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

3. Licensed Applicator's Name (if different from #2 above): \_\_\_\_\_ License No.: \_\_\_\_\_

Firm Name (if applicable): \_\_\_\_\_ Tel No.: \_\_\_\_\_

Street Address: \_\_\_\_\_ City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

4. Name of person(s) who applied the pesticide (if different from #3 above): \_\_\_\_\_

License No(s). If applicable: \_\_\_\_\_

5. Application Crop or Site: \_\_\_\_\_

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

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

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
			/	
			/	
2,4-D	62719-3	325 gallons	2.5 gal/acre	ft
			/	
			/	

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.

10. Wind direction and estimated velocity (mph) during the application: \_\_\_\_\_

11. Temperature during the application: \_\_\_\_\_

12. Apparatus license plate number (if applicable): \_\_\_\_\_

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: \_\_\_\_\_ Month: \_\_\_\_\_ Day: \_\_\_\_\_ Start Time: \_\_\_\_\_  
Stop Time: \_\_\_\_\_

2. Name of person for whom the pesticide was applied: \_\_\_\_\_

Firm Name (if applicable): \_\_\_\_\_

Street Address: \_\_\_\_\_ City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

3. Licensed Applicator's Name (if different from #2 above): \_\_\_\_\_ License No.: \_\_\_\_\_

Firm Name (if applicable): \_\_\_\_\_ Tel No.: \_\_\_\_\_

Street Address: \_\_\_\_\_ City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

4. Name of person(s) who applied the pesticide (if different from #3 above): \_\_\_\_\_

License No(s). If applicable: \_\_\_\_\_

5. Application Crop or Site: \_\_\_\_\_

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

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

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
			/	
			/	
DMA4-IVM 2,4-D	62719-3	325 gallons	2.5 gal/acre	ft
			/	
			/	

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.

10. Wind direction and estimated velocity (mph) during the application: \_\_\_\_\_

11. Temperature during the application: \_\_\_\_\_

12. Apparatus license plate number (if applicable): \_\_\_\_\_

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: 2013 Month: June Day: 18 Start Time: 8:00 am
Stop Time: 6:00 pm

2. Name of person for whom the pesticide was applied: Curt Carpenter
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 L Kluttz License No.: 66448
Firm Name (if applicable): Lakeland Restoration Services, LLC Tel No.: 208-448-2222
Street Address: 78 E River Spur 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.):

7. Was this application made as a result of a WSDA Permit? [ ] No [x] 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):

Table with 5 columns: 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. Rows include Aquathol K, Reward - Diquat, and DMA4 - IVM 2,4-D.

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 map

10. Wind direction and estimated velocity (mph) during the application: variable less than 7mph

11. Temperature during the application: 57-64 degrees fahrenheit

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: 2013 Month: June Day: 20 Start Time: 8:00 am  
Stop Time: 4:00 pm

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

3. Licensed Applicator's Name (if different from #2 above): David L Klutz License No.: 66448  
Firm Name (if applicable): Lakeland Restoration Services, LLC Tel No.: 208-448-2222  
Street Address: 78 E River Spur 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.): 10 acres

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 K	70506-176	80 gals.	1 gal/acre ft	
			/	
			/	
			/	
			/	

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 map

10. Wind direction and estimated velocity (mph) during the application: variable less than 7mph

11. Temperature during the application: 53 - 59 degrees fahrenheit

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

13.  Air  Ground  Chemigation

14. Miscellaneous Information:



# PESTICIDE APPLICATION RECORD (Version 1)

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

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

1. Date of Application - Year: 2013 Month: August Day: 8 Start Time: 8am  
Stop Time: 6pm

2. Name of person for whom the pesticide was applied: Curt Carpenter  
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 L 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: Blue Green Algae

6. Total Area Treated (acre, sq. ft., etc.): 25 acres

7. Was this application made as a result of a WSDA Permit?  No  Yes (If yes, give Permit No.) # WAG99148

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	68660-9-8950	2,500 lbs	1000lbs/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 map

10. Wind direction and estimated velocity (mph) during the application: variable less than 3 mph

11. Temperature during the application: 59 - 93 degrees fahrenheit

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

13.  Air  Ground  Chemigation

14. Miscellaneous Information:



# PESTICIDE APPLICATION RECORD (Version 1)

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

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

1. Date of Application - Year: 2013 Month: August Day: 23 Start Time: 8am  
Stop Time: 6pm

2. Name of person for whom the pesticide was applied: Curt Carpenter  
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 L 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: Blue Green Algae

6. Total Area Treated (acre, sq. ft., etc.): 25 acres

7. Was this application made as a result of a WSDA Permit?  No  Yes (If yes, give Permit No.) # WAG99148

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	68660-9-8956	2,500 lbs	1000lbs/ 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 map

10. Wind direction and estimated velocity (mph) during the application: variable less than 3 mph

11. Temperature during the application: 65 - 87 degrees fahrenheit

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

13.  Air  Ground  Chemigation

14. Miscellaneous Information: