

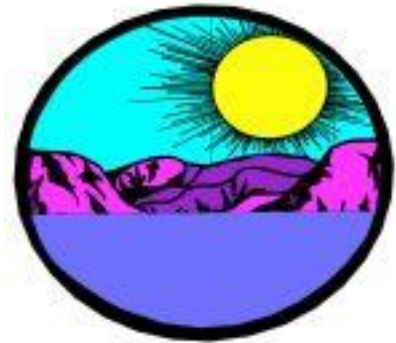
**Northwest Aquatic Management, LLC**

9727 Hwy 12 West #815

Rochester, WA 98579

(360) 870-4362

[nwaqua.com](http://nwaqua.com)

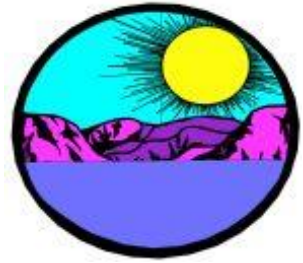


**Capitol Lake  
Weed Management Services**

**2015 Annual Report**

**March 1, 2016**

Northwest Aquatic Management, LLC



Prepared for:  
**Carrie Martin**  
Department of Enterprise Services  
State of Washington

Prepared by:  
**Kyle Steelhammer**  
President  
Northwest Aquatic Management, LLC  
(360) 870-4362

**Northwest Aquatic Management, LLC**

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## Introduction

Capitol Lake is a 260-acre lake located on the Washington State Capitol Campus in Olympia and Tumwater. It was created in 1951 when a dam was constructed at the mouth of the Deschutes River, blocking the tidal action of Puget Sound, to form a reflecting pool for the Legislative (Capitol) Building.

Since May 7, 2008 Northwest Aquatic Management, LLC has managed noxious and aquatic weeds in and around Capitol Lake under the direction of the State of Washington Department of Enterprise Services.

Those noxious weeds included Eurasian Watermilfoil (*Myriophyllum spicatum*), Yellow Flag Iris (*Iris pseudacorus*) Purple Loosestrife (*Lythrum salicaria*) and Fragrant White Water lily (*Nymphaea odorata*). Other macrophytes observed in and around Capitol Lake were:

- Elodea (*Egeria canadensis*)
- Coontail (*Ceratophyllum demersum*)
- Fragrant Waterlily (*Nymphaea odorata*)
- Large-leaved Pondweed (*Potamogeton amplifolius*)
- Thin-Leaved Pondweed (*Potamogeton nodosus*)
- Curlyleaf Pondweed (*Potamogeton crispus*)
- White Stem Pondweed (*Potamogeton praelongus*)
- Brittlewort (*Nitella*)

Non-aquatic noxious weeds observed in only in 2009 included,

- Butterfly Bush
- Japanese Knotweed

In the peak of the weed growing season it is estimated that 80% of the lakebed is covered with native vegetation.

Capitol Lake is a rapidly changing eco-system, which responds differently every year to various environmental conditions.

Significant changes observed in recent years include:

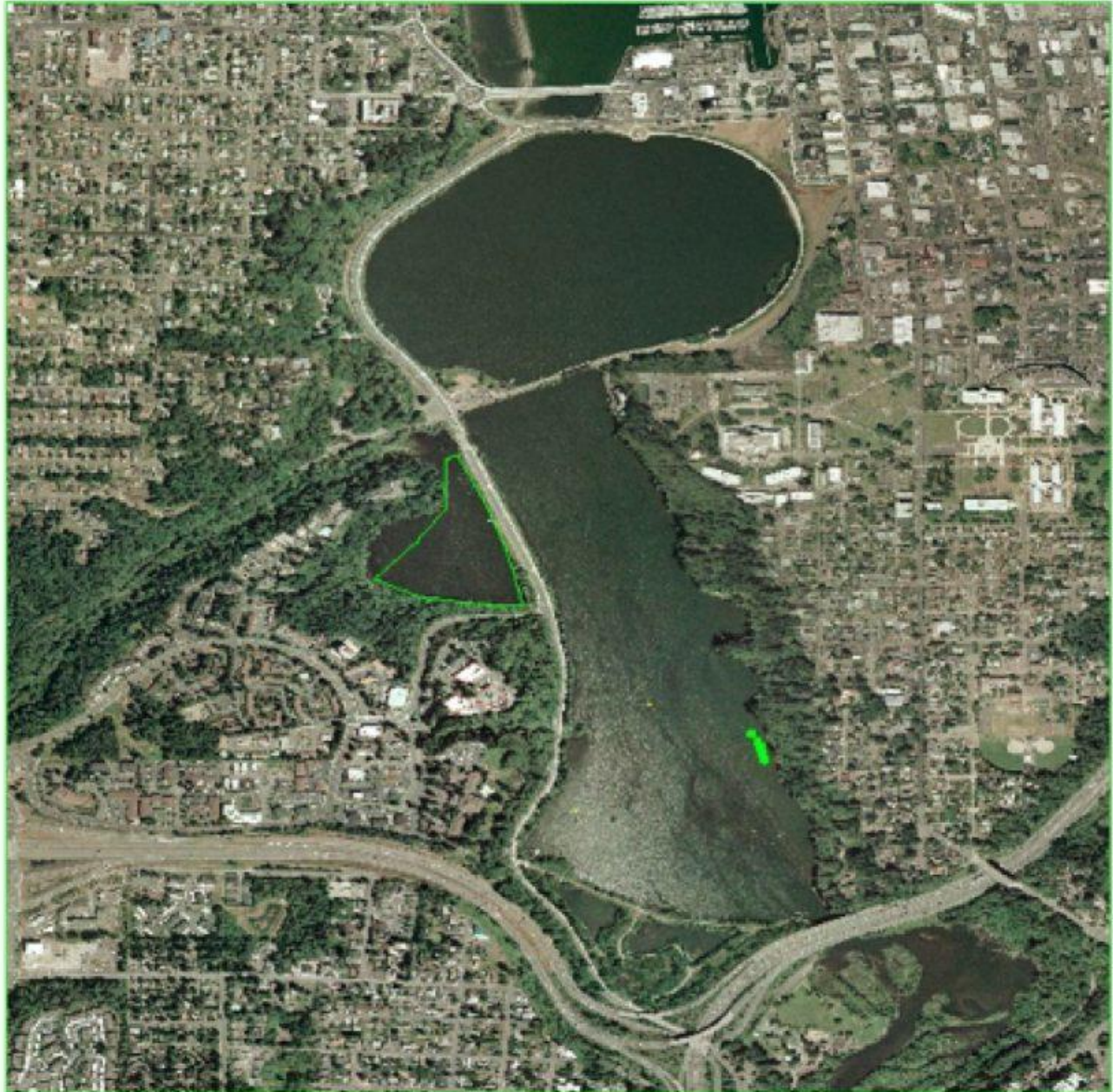
- Explosive spread of Thin-Leaved Pondweed (*Potamogeton nodosus*)
- Deposition of sediments
- Infestation of New Zealand Mud Snails
- Great reduction in Eurasian Watermilfoil

# Eurasian Watermilfoil (*Myriophyllum spicatum*)



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(360) 481-8479  
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## Capitol Lake 2012 Invasive Plant Infestation Survey





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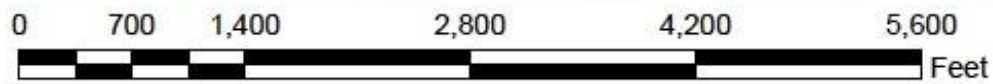
## Capitol Lake 2013 Eurasian Watermilfoil Survey





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## Capitol Lake 2014 Eurasian Milfoil Infestation



# Capitol Lake 2015 – Eurasian Milfoil Infestation





## Assessment

During the multipurpose surveys, Eurasian Milfoil sites were visited in the order listed below and were determined by previous maps created for Washington State Department of General Administration.

1. Sites indicating populations of multiple Eurasian Watermilfoil plants.
2. Sites indicating single Eurasian Watermilfoil plants.
3. Sites indicating no Eurasian Watermilfoil plants.

## Conditions

Dense populations of Thin-Leaved Pondweed (*Potamogeton nodosus*) have spread each year from where they were traditionally found in the north basin into the north end of the middle basin. Thin-Leaved Pondweed (*Potamogeton nodosus*) is a native plant, which grows into dense colonies forming what looks like a mat on the lakes surface. The population was observed on both sides of the deeper river channel extending several hundred yards south of the pedestrian bridge separating the North and Middle Basins.

Eurasian Watermilfoil plants were found in depth ranges from 1 to 4 feet.

Filamentous algae on the surface, which interferes with the Eurasian Watermilfoil survey and removal process was present in 2015. This lessens the quality of the survey. The surveys were performed to the best of our ability. The quantity of milfoil plants has increased in 2015.

Continued build up of sediments in the middle basin have reduced the areas suitable for Eurasian Watermilfoil growth. Increased areas in the Middle Basin are no longer navigable due to this sedimentation.

## Results

In 2012 surveys resulted in no plants early in the season. In August a late survey found 7 plants concentrated on the east shoreline of the Middle Basin. Factors contributing to this may have been:

- Saltwater back-flush
- Water draw down
- Freezing temperatures during draw down
- Sedimentation

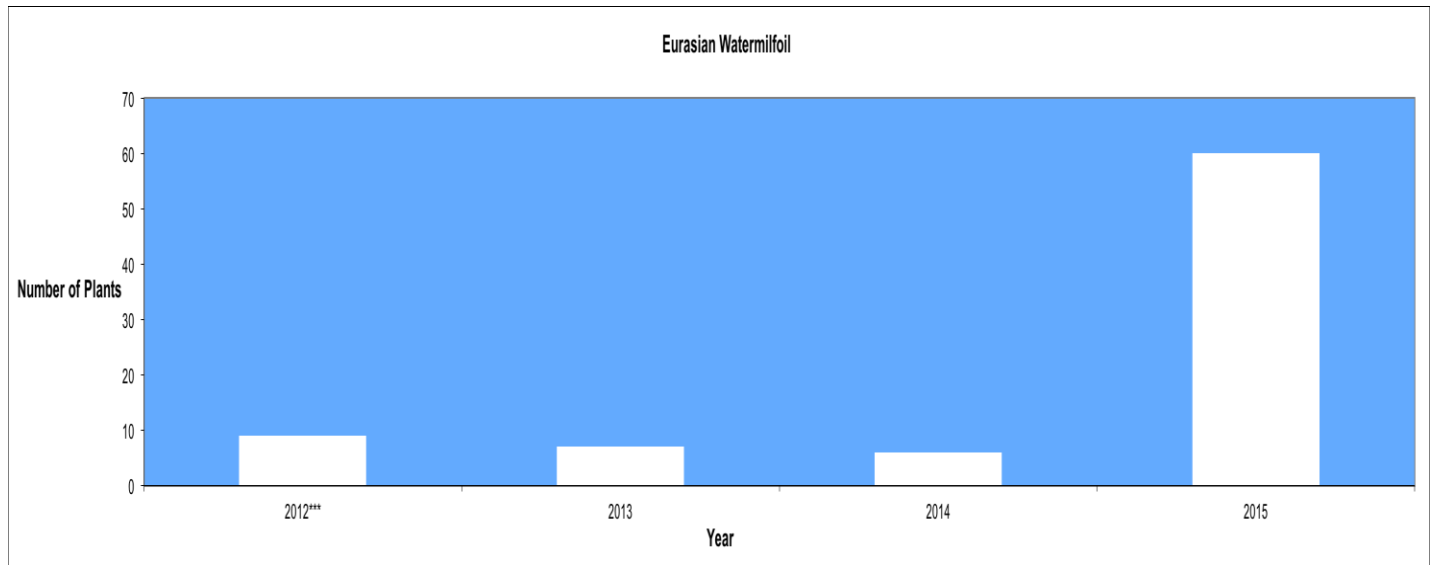
The Department of Enterprise Services contracted with divers in the 2012 season to perform Eurasian Watermilfoil removal work in Percival Cove. It is our understanding these divers removed thousands of pound plant material.

In 2013 there were 6 Eurasian Watermilfoil plants found. This does not include the Percival Cove pond; which Department of Enterprise Services has been contracting with divers to control Eurasian Watermilfoil in this area. The above practices will continue to combat the spread of the Eurasian Watermilfoil.

In 2014 there were also 6 Eurasian Watermilfoil plants found. The factors listed above seem to continue to keep the population from expanding. Percival Cove continues to support a large population but its'

spread has not been observed. The Department of Enterprise Services did not contract divers in 2014. Their use in 2015 would be beneficial.

In 2015 there was a dramatic increase in Eurasian Watermilfoil plants found. There were 12 plants found in the South Basin of Capitol Lake, there were 36 plants found in the Middle Basin of Capitol Lake, and there were about 12 plants found in Percival Cove. The west mitigation pond had about 8 plants in it while the east mitigation pond is relatively full of milfoil. The Department of Enterprise Services did not contract divers in 2015. Their use in 2016 would be beneficial.



### Control Activities

The survey work that was performed for Eurasian Milfoil was done in a 14' aluminum john boat powered by a 2.5 HP Suzuki Four Stroke. This boat can only be used in Capitol Lake once it has been put in for the season due the infestation of the New Zealand Mud Snails.

Instrumentation for this project included:

- Garmin 498 Chart plotter sonar
- Maps generated Google Earth Pro

For 2014, plants in the Middle basins were only observed very late in the season. Areas traditionally surveyed are now so shallow that they did not support Eurasian Watermilfoil and were not conducive to surveys.

For 2015, the plants in the South Basin were observed throughout the season. The Middle basin had plants that were located in the deeper portions that have not built up too much sediment. Percival Cove has plants along the East shoreline.

Surveys were conducted in conjunction with Yellow Flag Iris and Purple Loosestrife surveys and treatments.

### **Proposed Management**

As of right now, management of Eurasian Watermilfoil for the 2016 season closely resemble the same method used in the 2015 season. Less emphasis will be placed on the pre-season survey allowing more time for surveys later in the season as the plants grow in size.

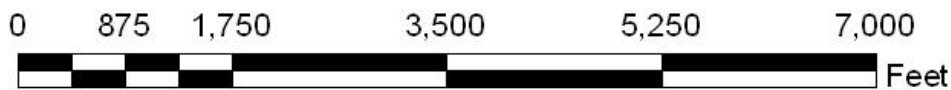
However, Eurasian Milfoil survey work needs to be expanded because of the amount of plants found in 2015. Previous control methods that were used, including surveys, marking, and managing could be replicated. If survey work is implemented, plants could be marked for easy identification and divers could come remove and dispose of the plants. Another option if survey work is implemented, would be to lower the lake level that is conducive to hand pulling some of the new Eurasian Milfoil plants.

# Yellow Flag Iris (*Iris pseudacorus*)



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(360) 481-8479  
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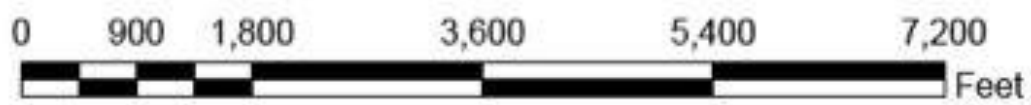
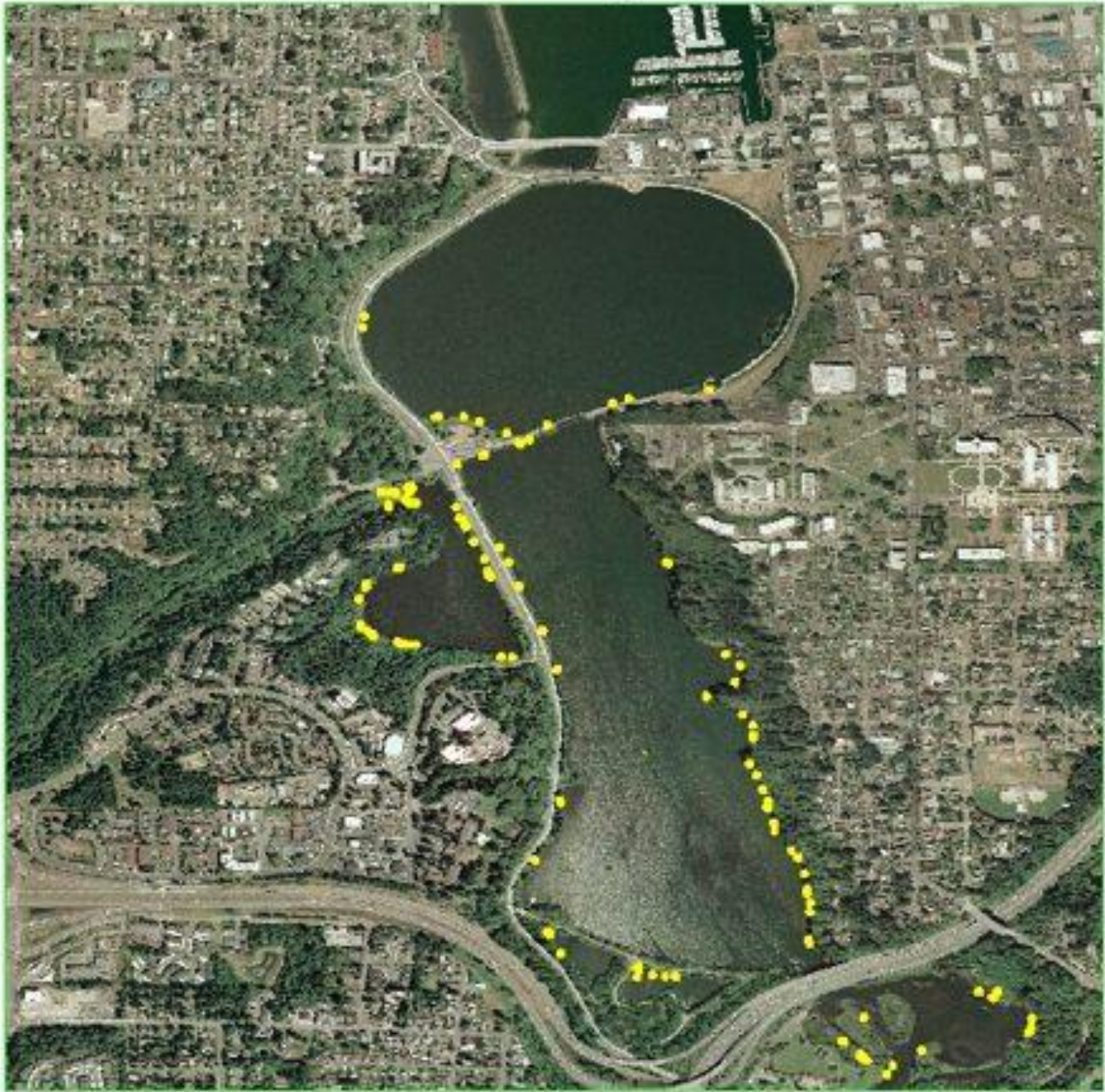
## Capitol Lake 2012 Yellow Flag Iris Infestation Survey





Northwest Aquatic Management, LLC  
(360) 481-8479  
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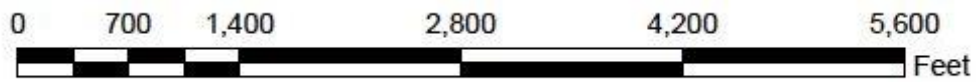
## Capitol Lake 2013 Yellow Flag Iris Survey





Northwest Aquatic Management, LLC  
(360) 481-8479  
NWAQUA.COM

## Capitol Lake 2014 Yellow Flag Iris Infestation



# Capitol Lake 2015 – Yellow Flag Iris Infestation



## Assessment

Yellow flag Iris plants were distributed along all shorelines of the lake and in many wetland areas. When not in bloom, Yellow Flag Iris looks similar to cattails and other reeds making the timing of the survey important. The Yellow Flag Iris presents itself quite well and is easily seen when in bloom.

Yellow Flag Iris spreads by both seeds, which grow in pods, or by rhizomes that grow just above the roots.



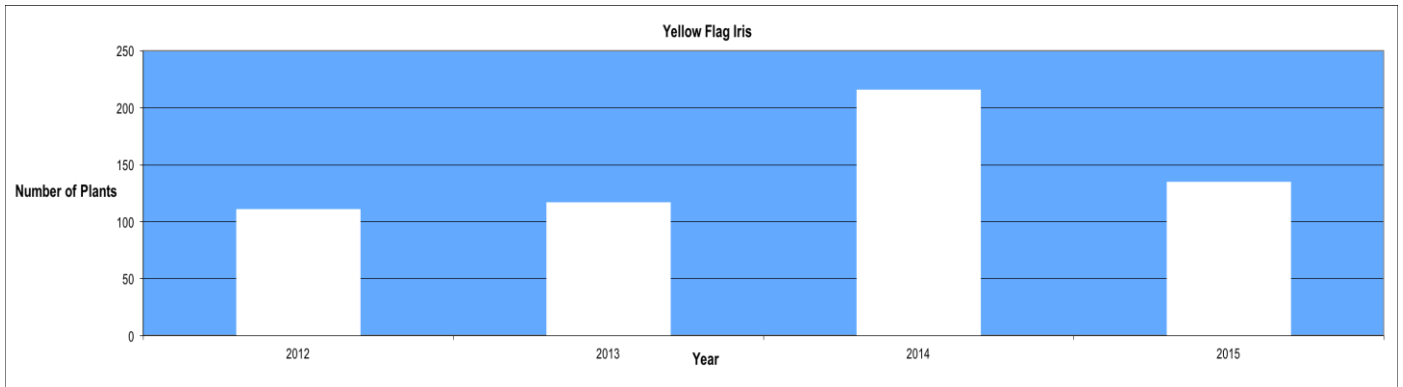
*Yellow Flag Iris in late bloom stage with a Crab Spider (Misumena vatia)*

As illustrated, 2012, 2013 and 2014 demonstrated no decline in the Yellow Flag Iris populations. This could be an indicator that plants seen each year are coming from seed bank, not plants which existed the year prior.

2014 demonstrated a large increase in plant count. A part of this increase can be attributed to higher water levels in 2014 during the growing season that was noticed in previous years. Not necessarily in the lake itself but the swamps took longer to dry out than usual.

In comparison to 2014, 2015 demonstrated a decrease in plant count on Department of Enterprise Service property. A total of 135 plants were found on the property, while the number of plants found on private property was quite high with 453 plants. The drop in plant numbers could be attributed to unusual season activity in the past few years; earlier spring and a shorter growing season.





## Control Activities

Yellow Flag Iris plants were located, documented, and plotted. The plants were then treated with a 3% solution of Monsanto's Aquamaster (glyphosate) using Loveland Products LI700 as a non-ionic surfactant. Plant die off was seen in one to two weeks.

All areas on the map indicating plant presence were treated with the exception of the east shoreline between the I-5 Bridge and the power plant. These plants were on residential parcels. At these sites the plants were inventoried and seed heads were removed and double bagged to help prevent further spreading.

## WSDA Letter of Limited Agent Status - Appendix A

A *Letter of Limited Agent Status* was acquired from the WSDA for this activity and all public notification requirements were met.

## Proposed Management

Management of Yellow Flag Iris for the 2015 season should proceed following the same strategies as in 2014 assuming the initial assessment finds similar conditions.

If in that assessment bare areas are observed as a result of repeated treatments a program to re-vegetate these locations with native seeding should be considered.

More aggressive action could be taken to eradicate the plants that were not in the 2015 treatment area. The most effective and economical option would be to obtain permission from the homeowners and conduct an herbicide application. Another effective option would be to change the chemical used to treat the Yellow Flag Iris. Rick Johnson at the Thurston County Weed Board recommends using an Imazapyr product. A less effective and less economical treatment would be to obtain the homeowners permission to conduct a manual removal of the Yellow Flag Iris.

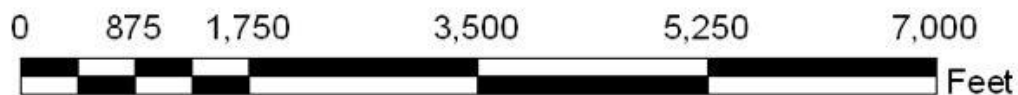
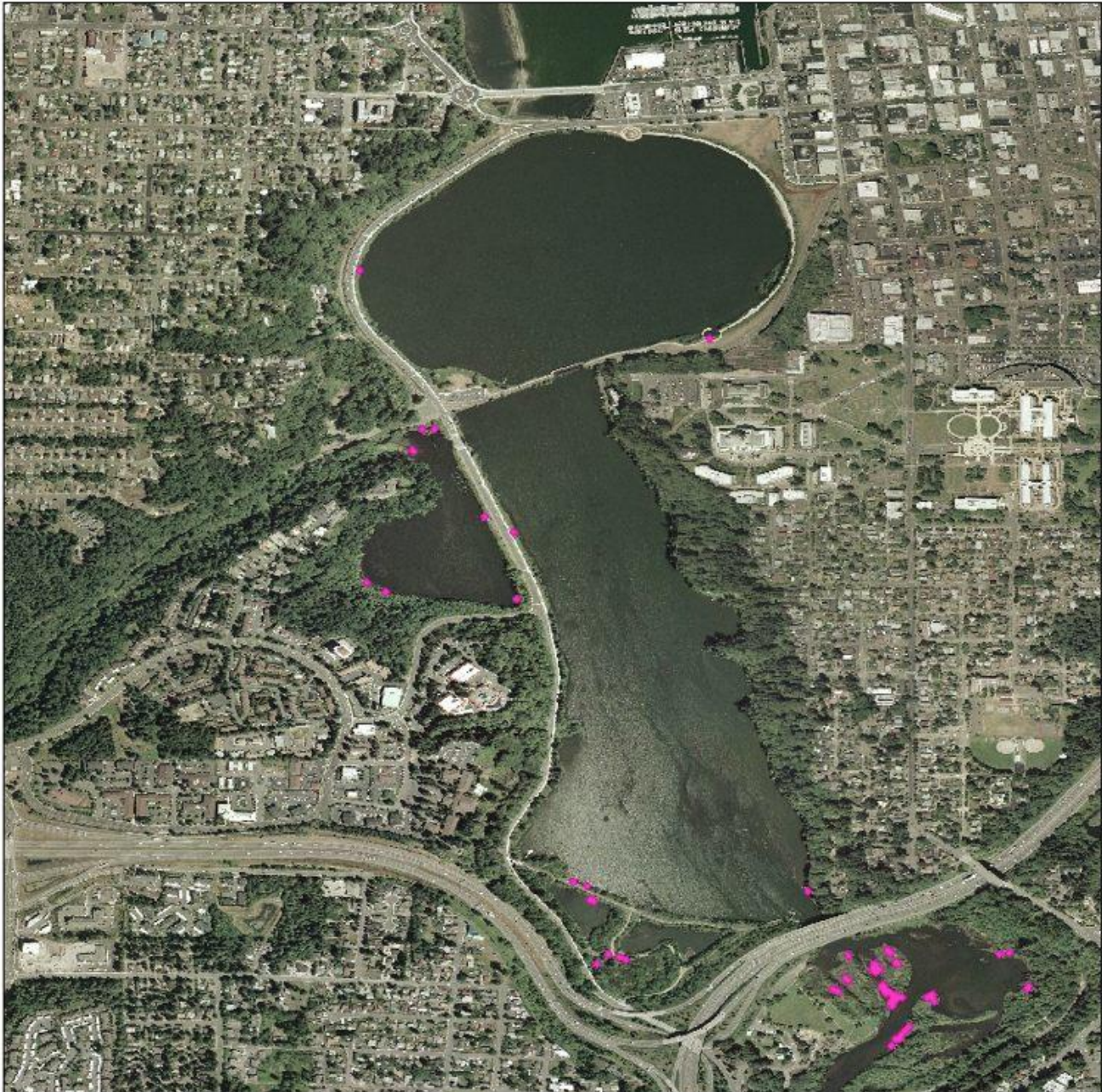
## Spray Logs Appendix B

# Purple Loosestrife (*Lythrum salicaria*)



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## Capitol Lake 2012 Purple Loosestrife Infestation Survey





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## Capitol Lake 2013 Purple Loosestrife Survey





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(360) 481-8479  
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# Capitol Lake

## 2014 Purple Loosestrife Infestation



0 700 1,400 2,800 4,200 5,600 Feet

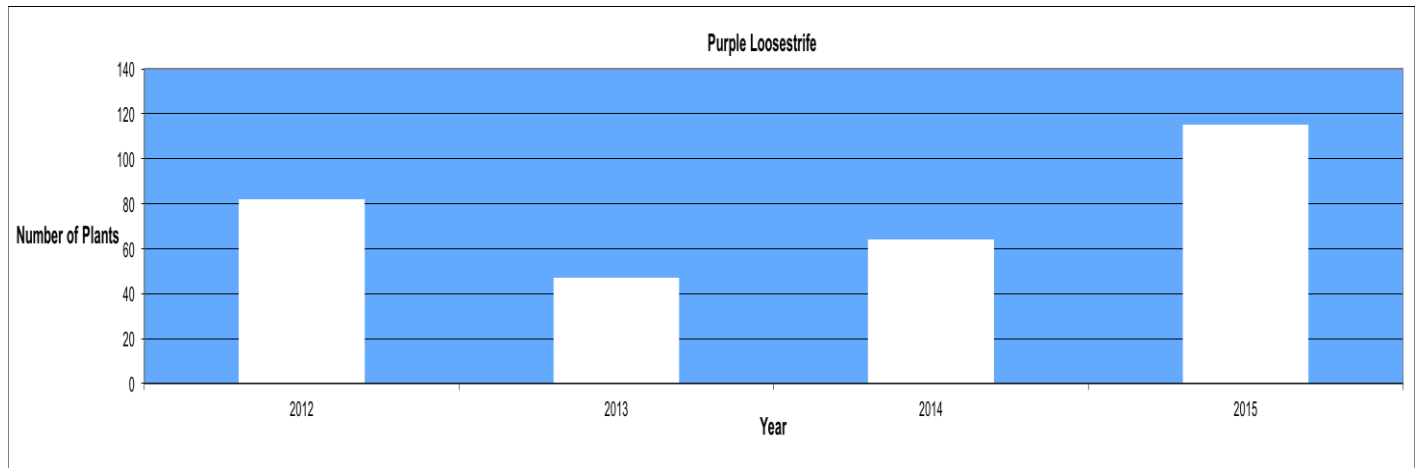


# Capitol Lake 2015 – Purple Loosestrife Infestation



## Assessment

Purple Loosestrife plants were distributed along many of the shorelines and in most wetlands around Capitol Lake. Purple Loosestrife is most easily identified while it is in bloom. Purple Loosestrife stays in bloom much longer than Yellow Flag Iris and spreads much more aggressively.



## Control Activities

Purple Loosestrife plants were located, documented, and plotted. Plants that had developed seed heads were topped and the seed heads were double bagged and disposed of. All plants were then treated with a 3.0% solution of Monsanto's Aquamaster (glyphosate) using Loveland Products LI700 as a non-ionic surfactant. Plant die off was seen in one to two weeks.

In past years some plants had shown indications that the Black-margined Loosestrife beetles (*Galerucella calmariensis*) were present. The beetles helped with control by specifically targeting Loosestrife plants.

As with many biological controls, with the decrease in plant populations the Black-margined Loosestrife beetles' activity is not noticeable again in 2015.

## Proposed Management

Management of Purple Loosestrife for the 2016 season should proceed following the same general strategies as in 2015 assuming the initial assessment finds similar conditions. The only recommendation would be to change the chemical used to treat the Purple Loosestrife. Rick Johnson at the Thurston County Weed Board recommends using an Imazapyr product.

## Spray Logs Appendix C

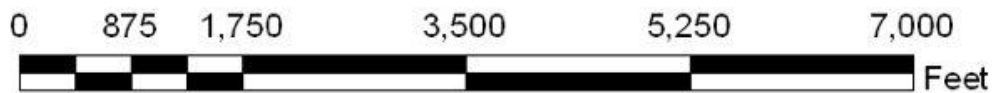
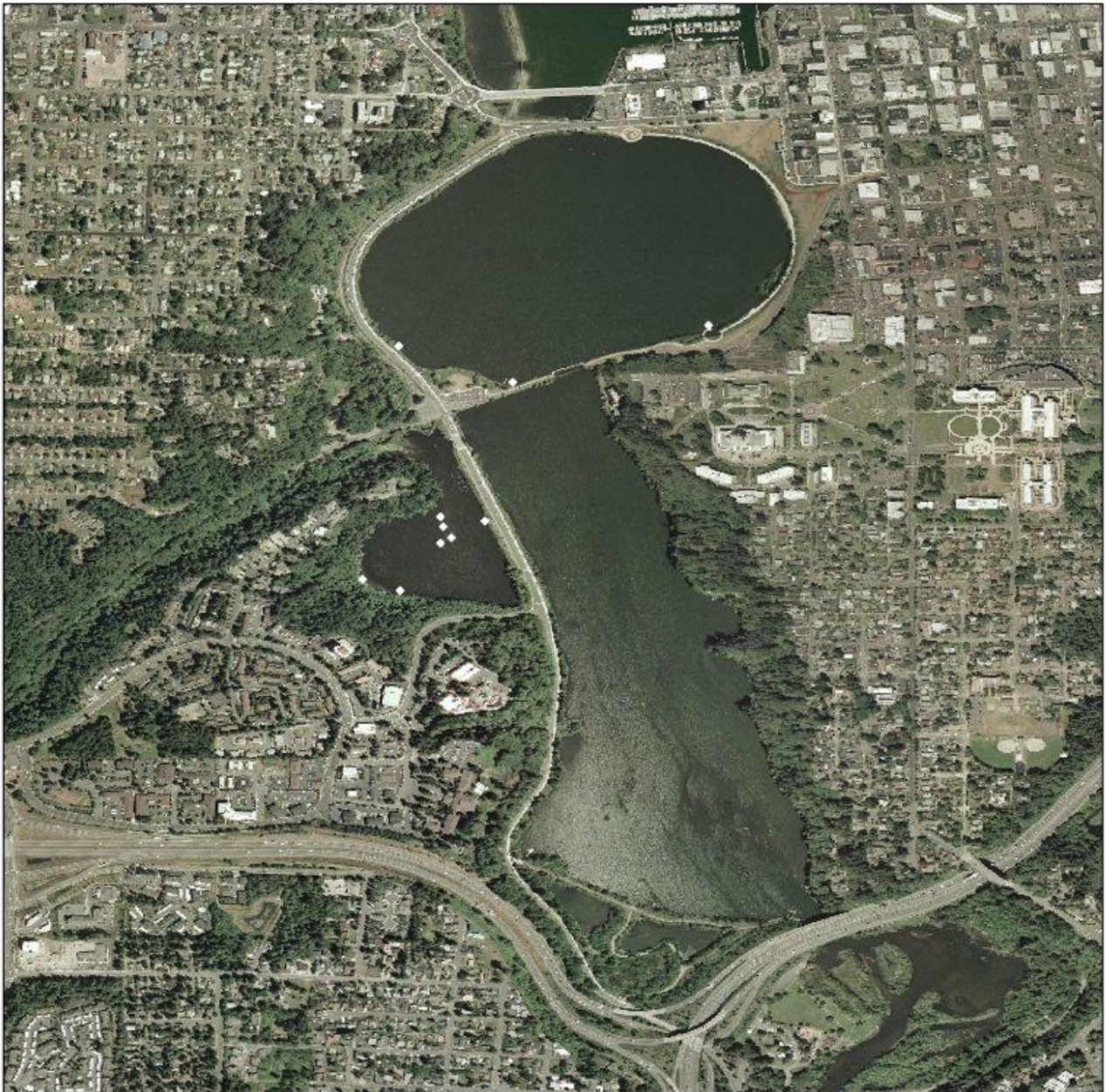
# Fragrant White Water Lily (*Nymphaea odorata*)



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NWAQUA.COM

## Capitol Lake

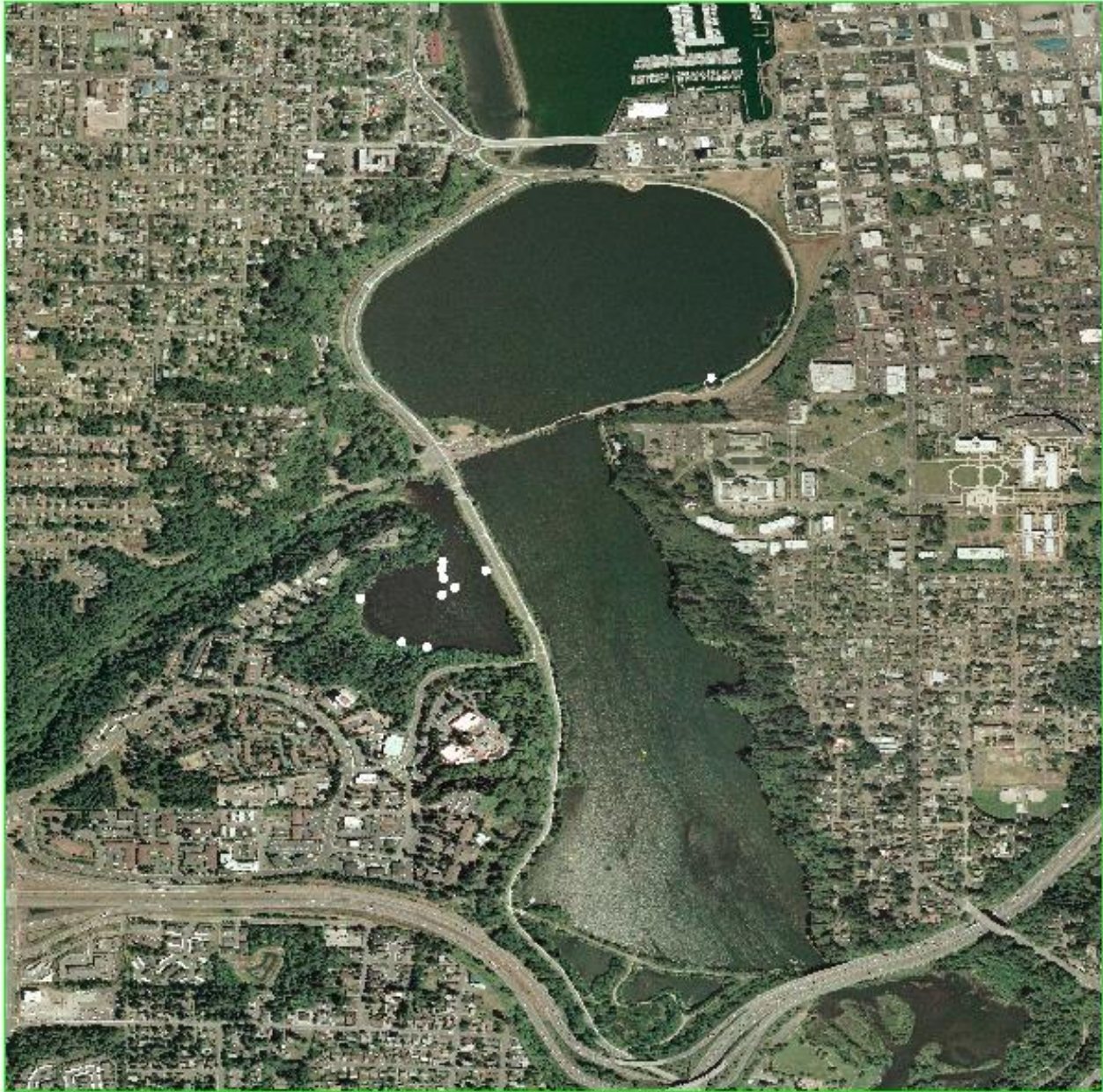
### 2012 Fragrant White Water Lilies Infestation Survey





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(360) 481-8479  
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## Capitol Lake 2013 Fragrant White Water Lily Survey







Northwest Aquatic Management, LLC  
(360) 481-8479  
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## Capitol Lake 2014 Fragrant White Water Lily Infestation



# Capitol Lake - 2015 Fragrant White Water Lily Infestation



## **Assessment**

In relative terms to other Western Washington Lakes this is considered a very small infestation. All locations consisted of less than one dozen pads. White Water Lilies have the ability to spread across several acres forming a canopy over areas of the lake, blocking all sunlight from other plant life. This often leads to anaerobic conditions.

The 2014 Survey of Fragrant White Water Lilies resulted in the recording of 3 locations on Capitol Lake and several in Percival Cove. The plants in Percival Cove were not mapped in 2014 due to the infestation of Eurasian Watermilfoil. We felt it was best to minimize activity in the Eurasian Watermilfoil infestation site to avoid fragmentation.

The 2015 survey of Fragrant White Water Lilies resulted in the recording of 6 locations on Capitol Lake and 8 locations in Percival Cove. The pads on Capitol Lake are consistent with the same locations as in 2014 survey.

## **Control Activities**

Fragrant White Water Lilies were cut three times during the summer to control their growth.

## **Proposed Management**

Continued cutting to achieve carbohydrate depletion over multiple seasons will result in the eradication of the Fragrant White Water Lilies.

## **Japanese Knotweed (*Fallopia japonica*)**

### **Assessment**

Japanese Knotweed is a Class B noxious weed, which should be controlled to prevent its spread.

The 2015 survey observed no new infestations. The staff of the Department of Enterprise Services was concerned about a location on the property that might be an early infestation.

The infestation was not located on Department of Enterprise Services property.

### **Control Activities**

The Thurston County Noxious Weed Board and the City of Tumwater should both be regularly notified of the issue.

### **Proposed Management**

Japanese Knotweed is most effectively controlled by stem injection with glyphosate. This management strategy is very effective but requires special equipment and is time consuming. A spray solution of 2% glyphosate and 1% Imazapyr and a foliar application between the months of mid July and mid September has been very effective, roughly a 95% kill rate. Further inquiry should be made to assure there is a work program in affect to control the surrounding infestations.

# Attachments

## Appendix A – WSDA Letter of Limited Agent Status



STATE OF WASHINGTON  
DEPARTMENT OF AGRICULTURE  
PLANT PROTECTION DIVISION

P.O. Box 42560•Olympia, Washington 98504-2560•Phone (360) 902-1908•Fax (360) 902-2094

### LETTER of LIMITED AGENT STATUS

June 8, 2015

#### I. ENTITY WITH LIMITED AGENT STATUS

Application Year:	2015		
Name of Entity:	Northwest Aquatic Management, LLC		
Name:	Steve Kalenius		
Mailing Address:	1401 Marvin Road NE, Suite 307-151		
City:	Lacey	State:	WA
ZIP + 4:	98516		
E-Mail Address:	steve@nwaqua.com		
Daytime Phone:	360-481-8479	Cell Phone:	

#### II. WATERBODY AND HERBICIDE INFORMATION

Waterbody Name	County	WRIA	Target Weed	Herbicide
Capital Lake	Thurston	13 - Deschutes	Lythrum salicaria (Purple Loosestrife), Iris pseudacorus (Yellow Flag Iris)	Glyphosate

Dear Applicant:

This Letter of Limited Agent Status constitutes a formal acceptance by the Washington State Department of Agriculture (WSDA) of the "Application and Agreement for Limited Agent Status for Aquatic Noxious Weed Control under WSDA's National Pollutant Discharge Elimination System General Permit" (hereinafter, "Application for Limited Agent Status") submitted by the above-named entity.

As set forth in the Application for Limited Agent Status and agreed to in this Letter of Limited Agent Status, WSDA hereby enters into a contract with the above-named entity (Section I), under which the entity acts as a limited agent to carry out noxious emergent and quarantine weed control for WSDA under the "Aquatic Noxious Weed Management General Permit National Pollutant Discharge Elimination System Waste Discharge General Permit" (hereinafter, "Permit") issued to WSDA on February 17, 2012.

1



This limited agent status applies to only the noxious weed control and/or eradication activities described in the Application for Limited Agent Status (Section II). This coverage terminates December 31, 2015. Direct in-water treatment of aquatic weeds is not allowed under this agreement.

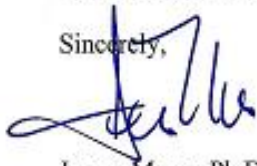
The above-named entity agrees to comply with all terms, conditions, and requirements included or referenced in the Application for Limited Agent Status, Permit and appropriate state, federal and local laws. WSDA issues this Letter of Limited Agent Status in specific reliance on the representations and agreements made by the entity in the Application for Limited Agent Status and WSDA intends that the entity comply with all terms, conditions, and requirements included or referenced in the Application for Limited Agent Status and the Permit.

Further information and the Permit language can be found at the following URL.

[http://www.ecy.wa.gov/programs/wq/pesticides/final\\_pesticide\\_permits/noxious/noxious\\_index.html](http://www.ecy.wa.gov/programs/wq/pesticides/final_pesticide_permits/noxious/noxious_index.html)

If any notification to WSDA is required under the Application for Limited Agent Status, that notification must be made to James Marra at (360) 902-2071 or [jmarra@agr.wa.gov](mailto:jmarra@agr.wa.gov).

Sincerely,



James Marra, Ph.D.  
Pest Program Manager

# Appendix B – Yellow Flag Iris



## PESTICIDE APPLICATION RECORD (Version 4)

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)

A. Date of Application - Year: 2015 Month: June Day: 13

B. Firm Name: NW Aquatic Management LLC Telephone No.: (360) 870-4362

Commercial Applicator's Name: Kyle Steelhammer License No.: 90015

Street Address: 19925 Tahoma Circle SW City: Rochester State: WA Zip: 98579

C. Name of person(s) who applied the pesticide: Kyle Steelhammer

License No(s): 90015

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

Full Product Name	EPA Reg. No.	Concentration
		Amount: (Lbs., Qts., etc.) of brand per 100 gallons of tank mix. Amount and unit must be specified.
Aquamaster(Glyphosate)	000524-00343	12.5 Quarts/100 Gallons
LI 700--Phosphatidicholine methylacetic acid and alkyl polyoxyethylene ether	034704-50035	2 Quarts/100 Gallons
Nufarm Polaris Herbicide (Imazapyr)	228-534	6 Quarts / 100 Gallons
Competitor	2935-04001	2 Quarts / 100 Gallons

E. Application crop or site: Wetlands F. Apparatus License Plate No. Backpack

G. Record the following information for the specific conditions during each application:

	CUSTOMER (a) full name (b) complete address	AMOUNT APPLIED (gals. of mix)	AREA TREATED (sq. ft., etc.)	START & STOP TIME	TEMP F°	WIND	
						DIR	VEL (mph)
1. a)	General Administration, Capitol Lake	1 quart	Spot Treatment	1 PM	68	E	2
b)	210 11 <sup>th</sup> Ave SW GA Bldg, Rm 201 Olympia, WA 98504		Yellow Flag Iris				
2. a)	General Administration, Capitol Lake		Spot Treatment				
b)	210 11 <sup>th</sup> Ave SW GA Bldg, Rm 201 Olympia, WA 98504		Purple Loosestrife				
3. a)							
b)							
4. a)							
b)							
5. a)							
b)							
6. a)							
b)							
7. a)							
b)							
8. a)							
b)							



# PESTICIDE APPLICATION RECORD (Version 4)

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)

A. Date of Application - Year: 2015 Month: July Day: 20

B. Firm Name: NW Aquatic Management LLC Telephone No.: (360) 870-4362

Commercial Applicator's Name: Kyle Steelhammer License No.: 90015

Street Address: 19925 Tahoma Circle SW City: Rochester State: WA Zip: 98579

C. Name of person(s) who applied the pesticide: Kyle Steelhammer

License No(s): 90015

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

Full Product Name	EPA Reg. No.	Concentration Amount: (Lbs., Qts., etc.) of brand per 100 gallons of tank mix. Amount and unit must be specified.
Aquamaster(Glyphosate)	000524-00343	12.5 Quarts/100 Gallons
LI 700--Phosphatidycholine methylacetic acid and alkyl polyoxyethylene ether	034704-50035	2 Quarts/100 Gallons
Nufarm Polaris Herbicide (Imazapyr)	228-534	6 Quarts / 100 Gallons
Competitor	2935-04001	2 Quarts / 100 Gallons

E. Application crop or site: Wetlands F. Apparatus License Plate No. Backpack

G. Record the following information for the specific conditions during each application:

	CUSTOMER (a) full name (b) complete address	AMOUNT APPLIED (gals. of mix)	AREA TREATED (sq. ft., etc.)	START & STOP TIME	TEMP F°	WIND	
						DIR	VEL (mph)
1. a)	General Administration, Capitol Lake	<u>2 gallons</u>	Spot Treatment	<u>7 AM 62</u>	<u>N</u>	<u>3</u>	
b)	<u>210 11<sup>th</sup> Ave SW GA Bldg, Rm 201 Olympia, WA 98504</u>		Yellow Flag Iris				
2. a)	General Administration, Capitol Lake		Spot Treatment				
b)	<u>210 11<sup>th</sup> Ave SW GA Bldg, Rm 201 Olympia, WA 98504</u>		Purple Loosestrife				
3. a)							
b)							
4. a)							
b)							
5. a)							
b)							
6. a)							
b)							
7. a)							
b)							
8. a)							
b)							



# Appendix C – Purple Loosestrife



## PESTICIDE APPLICATION RECORD (Version 4)

Washington State Department of Agriculture  
Pesticide Management Division  
PO Box 42580  
Olympia WA 98504-2580  
(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)

A. Date of Application - Year: 2015 Month: 8 Day: 3

B. Firm Name: NW Aquatic Management LLC Telephone No.: 3608704362

Commercial Applicator's Name: Kyle Steelhammer License No.: 90015

Street Address: 19925 Tahoma Circle SW City: Rochester State: WA Zip: 98579

C. Name of person(s) who applied the pesticide: \_\_\_\_\_

License No(s): \_\_\_\_\_

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

Full Product Name	EPA Reg. No.	Concentration Amount: (Lbs., Qts., etc.) of brand per 100 gallons of tank mix. Amount and unit must be specified.
Aquamaster(Glyphosate)	000524-00343	12.5 Quarts/100 Gallons
LI 700--Phosphatidycholine methylacetic acid and alkyl polyoxyethylene ether	034704-50035	2 Quarts/100 Gallons

E. Application crop or site: Wetlands F. Apparatus License Plate No. Backpack

G. Record the following information for the specific conditions during each application:

CUSTOMER (a) full name (b) complete address	AMOUNT APPLIED (gals. of mix)	AREA TREATED (sq. ft., etc.)	START & STOP TIME	TEMP F°	WIND	
					DIR	VEL (mph)
1. a) General Administration, Capitol Lake		Spot Treatment				
b) 210 11 <sup>th</sup> Ave SW GA Bldg, Rm 201 Olympia, WA 98504		Yellow Flag Iris				
2. a) General Administration, Capitol Lake	<u>1/2 quart</u>	Spot Treatment	<u>10 am 68</u>		<u>0</u>	
b) 210 11 <sup>th</sup> Ave SW GA Bldg, Rm 201 Olympia, WA 98504		Purple Loosestrife	<u>12 71</u>		<u>N 1</u>	
3. a) _____						
b) _____						
4. a) _____						
b) _____						
5. a) _____						
b) _____						
6. a) _____						
b) _____						
7. a) _____						
b) _____						
8. a) _____						
b) _____						



# PESTICIDE APPLICATION RECORD (Version 4)

Washington State Department of Agriculture  
Pesticide Management Division  
PO Box 42590  
Olympia WA 98504-2590  
(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)

A. Date of Application - Year: 2015 Month: 8 Day: 7

B. Firm Name: NW Aquatic Management LLC Telephone No.: 3608704362

Commercial Applicator's Name: Kyle Steelhammer License No.: 90015

Street Address: 19925 Tahoma Circle SW City: Rochester State: WA Zip: 98579

C. Name of person(s) who applied the pesticide: \_\_\_\_\_

License No(s): \_\_\_\_\_

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

Full Product Name	EPA Reg. No.	Concentration
		Amount: (Lbs., Qts., etc.) of brand per 100 gallons of tank mix. Amount and unit must be specified.
Aquamaster(Glyphosate)	000524-00343	12.5 Quarts/100 Gallons
LI 700-Phosphatidycholine methylacetic acid and alkyl polyoxyethylene ether	034704-50035	2 Quarts/100 Gallons

E. Application crop or site: Wetlands F. Apparatus License Plate No. Backpack

G. Record the following information for the specific conditions during each application:

CUSTOMER (a) full name (b) complete address	AMOUNT APPLIED (gals. of mix)	AREA TREATED (sq. ft., etc.)	START & STOP TIME	TEMP F°	WIND	
					DIR	VEL (mph)
1. a) General Administration, Capitol Lake		Spot Treatment				
b) 210 11 <sup>th</sup> Ave SW GA Bldg, Rm 201 Olympia, WA 98504		Yellow Flag Iris				
2. a) General Administration, Capitol Lake	<u>2 gments</u>	Spot Treatment	<u>7</u>	<u>67</u>	<u>E</u>	<u>.7</u>
b) 210 11 <sup>th</sup> Ave SW GA Bldg, Rm 201 Olympia, WA 98504		Purple Loosestrife	<u>1:30</u>	<u>73</u>	<u>E</u>	<u>1</u>
3. a) _____						
b) _____						
4. a) _____						
b) _____						
5. a) _____						
b) _____						
6. a) _____						
b) _____						
7. a) _____						
b) _____						
8. a) _____						
b) _____						



# PESTICIDE APPLICATION RECORD (Version 4)

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)

A. Date of Application - Year: 2015 Month: 8 Day: 10

B. Firm Name: NW Aquatic Management LLC Telephone No.: 3608704362

Commercial Applicator's Name: Kyle Steelhammer License No.: 90015

Street Address: 19925 Tahoma Circle SW City: Rochester State: WA Zip: 98579

C. Name of person(s) who applied the pesticide: \_\_\_\_\_

License No(s): \_\_\_\_\_

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

Full Product Name	EPA Reg. No.	Concentration
		Amount: (Lbs., Qts., etc.) of brand per 100 gallons of tank mix. Amount and unit must be specified.
Aquamaster(Glyphosate)	000524-00343	12.5 Quarts/100 Gallons
LI 700--Phosphatidycholine methylacetic acid and alkyl polyoxyethylene ether	034704-50035	2 Quarts/100 Gallons

E. Application crop or site: Wetlands F. Apparatus License Plate No. Backpack

G. Record the following information for the specific conditions during each application:

CUSTOMER (a) full name (b) complete address	AMOUNT APPLIED (gals. of mix)	AREA TREATED (sq. ft., etc.)	START & STOP TIME	TEMP F°	WIND	
					DIR	VEL (mph)
1. a) General Administration, Capitol Lake		Spot Treatment				
b) 210 11 <sup>th</sup> Ave SW GA Bldg, Rm 201 Olympia, WA 98504		Yellow Flag Iris				
2. a) General Administration, Capitol Lake	<u>1 gallon</u>	Spot Treatment	<u>12:pm</u>	<u>74</u>	<u>NE</u>	<u>12</u>
b) 210 11 <sup>th</sup> Ave SW GA Bldg, Rm 201 Olympia, WA 98504		Purple Loosestrife	<u>3pm</u>	<u>79</u>	<u>NE</u>	<u>1.5</u>
3. a)						
b)						
4. a)						
b)						
5. a)						
b)						
6. a)						
b)						
7. a)						
b)						
8. a)						
b)						



# PESTICIDE APPLICATION RECORD (Version 4)

Washington State Department of Agriculture  
Pesticide Management Division  
PO Box 42590  
Olympia WA 98504-2590  
(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)

A. Date of Application - Year: 2015 Month: 8 Day: 18

B. Firm Name: NW Aquatic Management LLC Telephone No.: 3608704362

Commercial Applicator's Name: Kyle Steelhammer License No.: 90015

Street Address: 19925 Tahoma Circle SW City: Rochester State: WA Zip: 98579

C. Name of person(s) who applied the pesticide: \_\_\_\_\_

License No(s): \_\_\_\_\_

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

Full Product Name	EPA Reg. No.	Concentration
		Amount: (Lbs., Qts., etc.) of brand per 100 gallons of tank mix. Amount and unit must be specified.
Aquamaster(Glyphosate)	000524-00343	12.5 Quarts/100 Gallons
LI 700--Phosphatidycholine methylacetic acid and alkyl polyoxyethylene ether	034704-50035	2 Quarts/100 Gallons

E. Application crop or site: Wetlands F. Apparatus License Plate No. Backpack

G. Record the following information for the specific conditions during each application:

	CUSTOMER (a) full name (b) complete address	AMOUNT APPLIED (gals. of mix)	AREA TREATED (sq. ft., etc.)	START & STOP TIME	TEMP F°	WIND	
						DIR	VEL (mph)
1. a)	General Administration, Capitol Lake		Spot Treatment				
b)	210 11 <sup>th</sup> Ave SW GA Bldg, Rm 201 Olympia, WA 98504		Yellow Flag Iris				
2. a)	General Administration, Capitol Lake	<u>1/2</u>	Spot Treatment	<u>7:30</u>	<u>62</u>	<u>NE</u>	<u>.7</u>
b)	210 11 <sup>th</sup> Ave SW GA Bldg, Rm 201 Olympia, WA 98504	<u>gallons</u>	Purple Loosestrife	<u>10:45</u>	<u>74</u>	<u>NE</u>	<u>1.3</u>
3. a)							
b)							
4. a)							
b)							
5. a)							
b)							
6. a)							
b)							
7. a)							
b)							
8. a)							
b)							



# PESTICIDE APPLICATION RECORD (Version 4)

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)

A. Date of Application - Year: 2015 Month: July Day: 27

B. Firm Name: NW Aquatic Management LLC Telephone No.: 3608704362

Commercial Applicator's Name: Kyle Steelhammer License No.: 90015

Street Address: 19925 Tahoma Circle SW City: Rochester State: WA Zip: 98579

C. Name of person(s) who applied the pesticide:

License No(s):

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

Full Product Name	EPA Reg. No.	Concentration
		Amount: (Lbs., Qts., etc.) of brand per 100 gallons of tank mix. Amount and unit must be specified.
Aquamaster(Glyphosate)	000524-00343	12.5 Quarts/100 Gallons
LI 700--Phosphatidycholine methylacetic acid and alkyl polyoxyethylene ether	034704-50035	2 Quarts/100 Gallons

E. Application crop or site: Wetlands F. Apparatus License Plate No. Backpack

G. Record the following information for the specific conditions during each application:

CUSTOMER (a) full name (b) complete address	AMOUNT APPLIED (gals. of mix)	AREA TREATED (sq. ft., etc.)	START & STOP TIME	TEMP F°	WIND	
					DIR	VEL (mph)
1. a) General Administration, Capitol Lake		Spot Treatment				
b) 210 11 <sup>th</sup> Ave SW GA Bldg, Rm 201 Olympia, WA 98504		Yellow Flag Iris				
2. a) General Administration, Capitol Lake	1 gal	Spot Treatment	7:30	62	.S	W
b) 210 11 <sup>th</sup> Ave SW GA Bldg, Rm 201 Olympia, WA 98504		Purple Loosestrife	3:00	73	.S	
3. a)						
b)						
4. a)						
b)						
5. a)						
b)						
6. a)						
b)						
7. a)						
b)						
8. a)						
b)						



# PESTICIDE APPLICATION RECORD (Version 4)

Washington State Department of Agriculture  
Pesticide Management Division  
PO Box 42590  
Olympia WA 98504-2590  
(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)

A. Date of Application - Year: 2015 Month: July Day: 31

B. Firm Name: NW Aquatic Management LLC Telephone No.: 3608704362

Commercial Applicator's Name: Kyle Steelhammer License No.: 90015

Street Address: 19925 Tahoma Circle SW City: Rochester State: WA Zip: 98579

C. Name of person(s) who applied the pesticide: \_\_\_\_\_

License No(s): \_\_\_\_\_

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

Full Product Name	EPA Reg. No.	Concentration Amount: (Lbs., Qts., etc.) of brand per 100 gallons of tank mix. Amount and unit must be specified.
Aquamaster(Glyphosate)	000524-00343	12.5 Quarts/100 Gallons
LI 700--Phosphatidycholine methylacetic acid and alkyl polyoxyethylene ether	034704-50035	2 Quarts/100 Gallons

E. Application crop or site: Wetlands F. Apparatus License Plate No. Backpack

G. Record the following information for the specific conditions during each application:

	CUSTOMER (a) full name (b) complete address	AMOUNT APPLIED (gals. of mix)	AREA TREATED (sq. ft., etc.)	START & STOP TIME	TEMP F°	WIND	
						DIR	VEL. (mph)
1. a)	General Administration, Capitol Lake		Spot Treatment				
b)	210 11 <sup>th</sup> Ave SW GA Bldg, Rm 201 Olympia, WA 98504		Yellow Flag Iris				
2. a)	General Administration, Capitol Lake	<u>1 gal</u>	Spot Treatment	<u>7:00</u>	<u>65</u>	<u>.5</u>	<u>N</u>
b)	210 11 <sup>th</sup> Ave SW GA Bldg, Rm 201 Olympia, WA 98504		Purple Loosestrife	<u>12:00</u>	<u>88</u>	<u>.7</u>	<u>N</u>
3. a)							
b)							
4. a)							
b)							
5. a)							
b)							
6. a)							
b)							
7. a)							
b)							
8. a)							
b)							