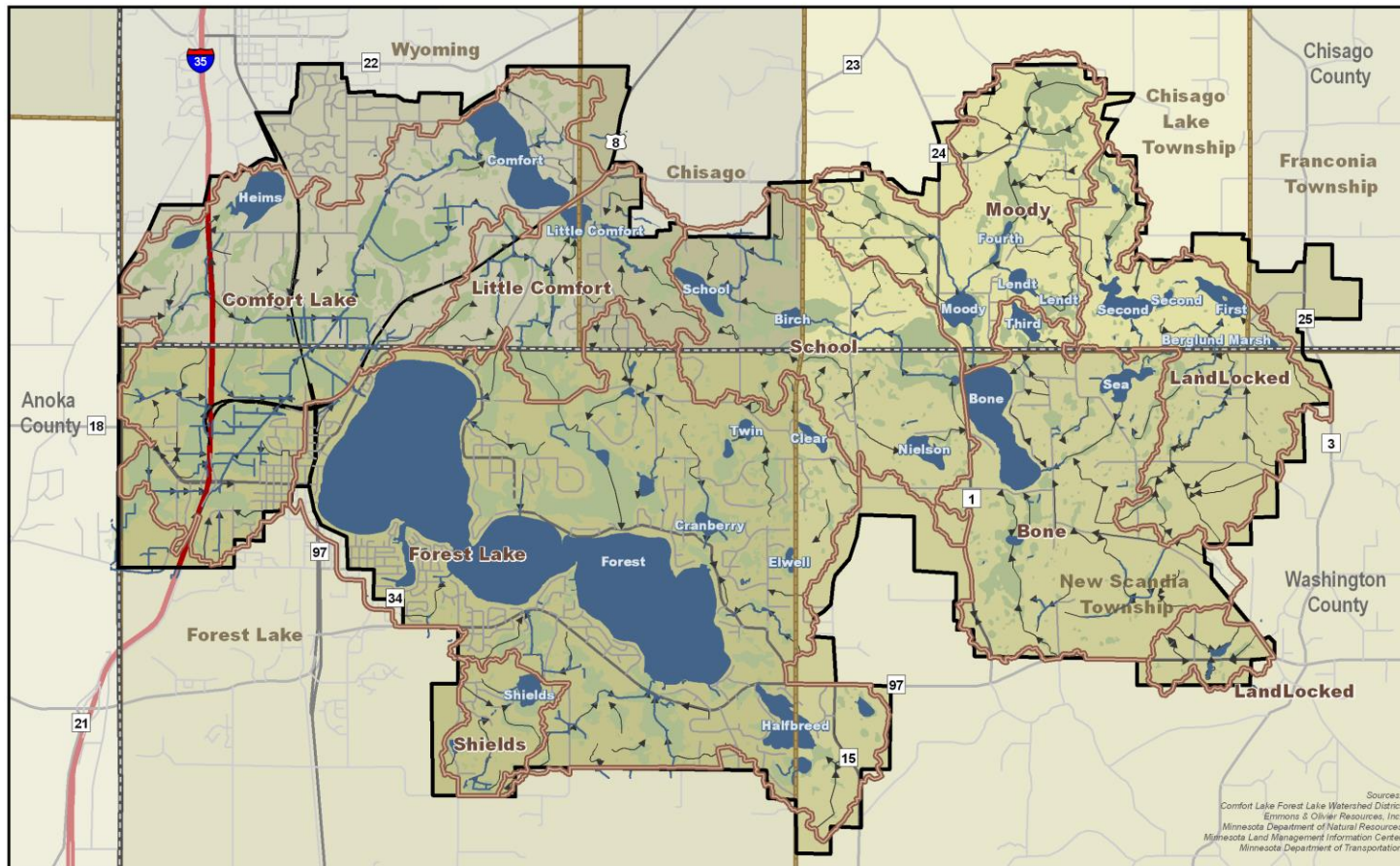




# 2015 Yearend AIS Review

## Comfort Lake – Forest Lake Watershed District

- Sylvan Lake
- Shields Lake
- Little Comfort Lake
- Comfort Lake
- Moody Lake
- Bone Lake
- Forest Lake



Comfort Lake – Forest Lake Watershed District

Phone: (651) 395-5850 Fax: (651) 395-5851 Email: [info@clflwd.org](mailto:info@clflwd.org)

44 Lake Street South, Suite A Forest Lake, MN 55025



# District-Wide

---

## 2015 Year-End Report

### Grants and Contributions

- Accomplishments
  - Obtained a total of \$101,567 in grants for AIS-related projects/programs.
  - Forest Lake Lake Association and City of Forest Lake provided a combined total of \$66,000 for AIS-related projects/programs on Forest Lake.
  - Chisago County contributed roughly \$5,000 to fund additional watercraft inspection hours on Comfort Lake.

### Watercraft Inspections

- Accomplishments
  - Coordinated with Chisago County to manage 5 full-time level 1 inspectors, 1 part-time level 1 inspector, and 2 full-time level 2 inspectors operating a decontamination unit (level 2 inspectors spent part of their time in Chisago County and part of their time at launches on Forest Lake).
  - Inspectors rotated amongst 5 public boat launches and 1 private launch:
    - Forest Lake 1 – Lakeside Park public access
    - Forest Lake 2 – Willow Point public access
    - Forest Lake 3 – Hagberg public access
    - Forest Lake – Timm's Marina private access
    - Bone Lake – public access
    - Comfort Lake – public access
  - Inspectors achieved a total of 3,483.5 inspection hours within CLFLWD and performed a total of 3,877 inspections.



# Moody Lake

---

## 2015 Yearend Report

### Rough Fish Management

- **Accomplishments**

- Installed aeration system to increase dissolved oxygen and reduce winterkills
- Completed fish population survey, common carp population estimate, lake-bottom sonar scanning to identify hazards for netting, and young of year carp netting.

- **Deliverables**

- St. Mary's University: Common Carp & Fish Community Survey final report
- Blue Water Science: Young of the year carp mini-fyke netting final report
- Blue Water Science: Lake bottom sonar map

### Point-intercept Surveys

- **Deliverables**

- Blue Water Science: point-intercept survey report

### Curly-leaf Pondweed

- **Deliverables**

- Blue Water Science: Delineation and Assessment report

-----**Other Lakeshed Projects**-----

### Wetland Restoration Feasibility

- **Accomplishments**

- Completed wetland restoration feasibility
- Obtained \$429,284 BWSR Clean Water Fund grant for implementation

- **Deliverables**

- EOR: Feasibility Analysis of Restoration Options memo

### Blue-Green Algae

- **Accomplishments**

- Sent informational letters to near-lake homeowners and posted information to CLFLWD website

### Lake Level

- **Accomplishments**

- Identified and temporarily removed beaver dam causing high water at lake outlet





# Bone Lake

---

## 2015 Yearend Report

### Curly-leaf Pondweed

- Accomplishments
  - Obtained treatment permission letters from all affected landowners.
  - Completed two herbicide treatments. Treated 1.65 acres on 5/5/15 and 0.8 acres on 5/28/15.
- Deliverables
  - Blue Water Science: Delineation and Assessment report will be combined with Eurasian watermilfoil report.

### Eurasian Watermilfoil

- Accomplishments
  - Obtained treatment permission letters from all affected landowners.
  - Treated 3.44 acres with herbicide on 7/17/15.
- Deliverables
  - Blue Water Science: Delineation and Assessment report will be combined with curly-leaf pondweed report.

### Rough Fish Management

- Accomplishments
  - Completed fish barrier retrofits and received DNR grant for \$20,027 to cover construction and plantings.
  - Completed fish population survey, common carp population estimate, lake-bottom sonar scanning to identify hazards for netting, young of year carp netting, and installed telemetry transmitters in 5 carp.
  - Coordinated with local farmer to dispose of carp biomass after electrofishing.
- Deliverables
  - St. Mary's University: Common Carp & Fish Community Survey final report.
  - Blue Water Science: Young of the year carp mini-fyke netting final report.
  - Blue Water Science: Lake-bottom sonar map.

### Zebra Mussels

- Accomplishments
  - CLFLWD staff and one volunteer monitored 2 sampler plates for early detection. No zebra mussels detected in 2015.

### Watercraft Inspections

- Accomplishments
  - Inspectors performed 396 inspection hours on Bone Lake.
- Deliverables
  - Chisago County: 2015 AIS Prevention Report – January 13, 2016.

---

## Other Lakeshed Projects

---

### **Bone Lake Diagnostic Study**

- Deliverables
  - EOR: Bone Lake Diagnostic Study report.

### **Blue-Green Algae**

- Accomplishments
  - Coordinated with Bone Lake Association to post info on Facebook and posted info to CLFLWD website.

# Bone Lake Management



		Sub Totals				Annual	Timeline											
		Budget	Grants	BWS	Contractor	Balance	April	May	June	July	August	September	October	November	December	January	February	
Bone Lake 2015 Activities		\$ 29,275	\$ -	\$ (8,100)	\$ (4,858)	\$ 16,317												
Curly-Leaf Pondweed	Work Task	2015 Budget	Grants	BWS	Contractor	Total												
	Delin-Assess	\$ 2,000		\$ (1,900)	\$ -	\$ 100												
	Permitting			\$ -	\$ -	\$ -												
	Management	\$ 33,480		\$ -	\$ (874)	\$ 32,606												
	Final Report			\$ (300)	\$ -	\$ (300)												
	Total	\$ 35,480		\$ (2,200)	\$ (874)	\$ 32,406												
Eurasian Watermilfoil	Work Task	2015 Budget	Grants	BWS	Contractor	Total												
	Delin-Assess	\$ -		\$ (2,000)	\$ -	\$ (2,000)												
	Permitting			\$ -	\$ -	\$ -												
	Management			\$ -	\$ (1,431)	\$ (1,431)												
	Final Report			\$ -	\$ -	\$ -												
	Total	\$ -		\$ (2,000)	\$ (1,431)	\$ (3,431)												
Rough Fish Management	Work Task	2015 Budget	Grants	BWS	Contractor	Total												
	BLA coord./notification			\$ -	\$ (460)	\$ (460)												
	Survey/Pop/Tel	\$ 4,000		\$ (2,500)	\$ (2,483)	\$ (983)												
	Permitting			\$ -	\$ -	\$ -												
	Bottom Scan			\$ (1,400)	\$ -	\$ (1,400)												
	Harvest	\$ (10,205)		\$ -	\$ -	\$ (10,205)												
		Total	\$ (6,205)		\$ (3,900)	\$ (2,483)	\$ (12,588)											
Zebra Mussels	Work Task	2015 Budget	Grants	BWS	Contractor	Total												
	Samplers	\$ -		\$ -	\$ (70)	\$ (70)												
	Total	\$ -		\$ -	\$ (70)	\$ (70)												
2016 Work Plan and Budgeting																		

<sup>1</sup>LMI performed herbicide treatment of CLP on 5/5/15 (1.65 acres). Second treatment performed 5/28/15 (additional .8 acres).  
<sup>2</sup>Fish assessment notification sent out to BLA and residents through Facebook and mail  
<sup>3</sup>SMU conducted the fish survey on 7/30/15, recapture survey on 8/14, electrofishing scheduled for late September  
<sup>4</sup>BWS conducted additional carp work in October including lake bottom sonar eval. & seining  
<sup>5</sup>LMI performed herbicide treatment of EWM on 7/17/15 (3.44 acres)

Note:  
 Green text = estimated cost (invoice not yet received)  
 Black text = exact amount paid

2014 Work	Status
CLP Mgmt Plan	
CLP & EWM Delin & Assess	Bone R14 - plants 1-27-15.pdf
AIS Action Plan	Bone R14 - AIS Action Plan.pdf

2015 Work	Status
CLP Delineation Map	2015 Bone CLP Treatment Site April 18.jpeg
CLP Assessment Map	2015 Bone CLP June 4.jpeg
EWM Delineation Map	2015 Bone EWM Treatment Sites June 4.jpeg
EWM Delineation Map	2016 Bone EWM Treatment Sites June 30.jp
CLP & EWM Assessment Report	Expect to receive by Feb 2016
Lake bottom sonar map	Bone-Moody R15 - Fish report 1-19-16
Mini-fyke netting report	Bone-Moody R15 - Fish report 1-19-16
SMU Fish Survey	Draft Received. Final Jan 2016







# Little Comfort Lake

---

## 2015 Yearend Report

### Curly-leaf Pondweed

- **Deliverables**

- Blue Water Science: April delineation showed no growth. Delineation on 6/4/15 showed some growth.

### Point-intercept Survey

- **Deliverables**

- Blue Water Science: Point-intercept survey report

### Zebra Mussels

- **Accomplishments**

- Recruited one volunteer to monitor a sampler plate on private dock for early detection. No zebra mussels detected in 2015.

---

### -----Other Lakeshed Projects-----

### Shoreline Survey

- **Deliverables**

- Blue Water Science: Shoreline survey report will be combined with 2014 Comfort Lake shoreline survey.

### Filamentous Algae

- **Accomplishments**

- Mailed informational flyer to residents on Little Comfort Lake.

- **Deliverables**

- EMWREP: Filamentous algae flyer
- Blue Water Science: Filamentous algae delineation along with curly-leaf pondweed

### Tributary Streams Biological Monitoring

- **Deliverables**

- EOR: September 2015 Macroinvertebrate and Fish Community Survey Results memo

# Little Comfort Lake Management



		Sub Totals				Annual	Timeline											
		Budget	Grants	BWS	Contractor	Balance	April	May	June	July	August	September	October	November	December	January	February	
Little Comfort Lake 2015 Activities		\$ 4,000	\$ -	\$ (5,600)	\$ (435)	\$ (2,035)												
Curly-Leaf Pondweed	Work Task	2015 Budget	Grants	BWS	Contractor	Total												
	Delin-Assess	\$ -		\$ (1,300)	\$ -	\$ (1,300)	BWS (4/18/15)											
	Permitting			\$ -	\$ -	\$ -	WD											
	Management			\$ -	\$ -	\$ -	No treatment <sup>1</sup>											
	Final Report			\$ (300)	\$ -	\$ (300)					BWS							
	Total	\$ -		\$ (1,600)	\$ -	\$ (1,600)												
Point-Intercept Surveys	Work Task	2015 Budget	Grants	BWS	Contractor													
	Assessment	\$ 1,800		\$ (1,800)	\$ -	\$ -				BWS								
	Final Report	\$ 300		\$ (300)	\$ -	\$ -							BWS					
	Total	\$ 2,100		\$ (2,100)	\$ -	\$ -												
Shoreline Survey	Work Task	2015 Budget	Grants	BWS	Contractor													
	Assessment	\$ 1,600		\$ (1,600)	\$ -	\$ -				BWS								
	Final Report	\$ 300		\$ (300)	\$ -	\$ -							BWS					
	Total	\$ 1,900		\$ (1,900)	\$ -	\$ -												
Filamentous Algae	Work Task	2015 Budget	Grants	BWS	Contractor													
	Memo			\$ -	\$ (400)	\$ (400)				EOR								
	Total	\$ -		\$ -	\$ (400)	\$ (400)												
Zebra Mussels	Work Task	2015 Budget	Grants	BWS	Contractor													
	Samplers			\$ -	\$ (35)	\$ (35)	WD											
	Total	\$ -		\$ -	\$ (35)	\$ (35)												
2016 Work Plan and Budgeting								EOR/WD										

<sup>1</sup>No CLP growth delineated on April 18, 2015

Note:  
 Green text = estimated cost (all invoices not yet received)  
 Black text = exact amount paid

2014 Work	Status

2015 Work	Status
CLP & Algae Delineation	2015 Little Comfort CLP and Filamentous Algae June 4.jpeg
Filamentous Algae Memo	Prepared by EOR and provided for Board review
Filamentous Algae Flyer	Prepared by EMWREP and mailed to lakeshore homeowners
Shoreline survey	Expect to receive by Feb 2016; combine w/ Comfort survey
Point-intercept survey	Expect to receive by Feb 2016



# Shields Lake

---

## 2015 Year-End Report

### Point-intercept Survey

- **Deliverables**
  - Blue Water Science: Point-intercept survey report

### Rough Fish Management

- **Accomplishments**
  - Completed fish population survey and common carp population estimate.
  - Acquired electric fish barrier downstream of Shields Lake. Begun upgrades feasibility.
- **Deliverables**
  - St. Mary's University: Common Carp & Fish Community Survey final report

### Zebra Mussels

- **Accomplishments**
  - CLFLWD staff monitored a sampler plate on the public dock for early detection. No zebra mussels detected in 2015.

---

### Other Lakeshed Projects

---

### Shoreline Survey

- **Deliverables**
  - Blue Water Science: Shoreline survey report.

### Shields Lake Diagnostic Study

- **Accomplishments**
  - Initiated diagnostic study. City of Forest Lake performed surveying for West Shields Drainage Assessment
- **Deliverables**
  - EOR: Shields Lake Modeling and Preliminary Results memo and presentation

# Shields Lake Management



		Sub Totals				Annual	Timeline											
		Budget	Grants	BWS	Contractor	Balance	April	May	June	July	August	September	October	November	December	January	February	
Shields Lake 2015 Activities		\$ 1,900	\$ -	\$ (1,900)	\$ (1,163)	\$ (1,163)												
Point-Intercept Surveys	Work Task	2015 Budget	Grants	BWS	Contractor													
	Assessment	\$ 1,600		\$ (1,600)	\$ -	\$ -				BWS								
	Final Report	\$ 300		\$ (300)	\$ -	\$ -							BWS					
	Total	\$ 1,900		\$ (1,900)	\$ -	\$ -												
Carp Pop. Survey/Estimate	Work Task	2015 Budget	Grants	BWS	Contractor													
	Fish Survey			\$ -	\$ (564)	\$ (564)				SMU <sup>1</sup>								
	Permitting			\$ -	\$ -	\$ -				SMU <sup>2</sup>								
	Carp Pop.			\$ -	\$ (564)	\$ (564)					SMU <sup>3</sup>							
Total	\$ -		\$ -	\$ (1,128)	\$ (1,128)													
Zebra Mussels	Work Task	2015 Budget	Grants	BWS	Contractor													
	Samplers			\$ -	\$ (35)	\$ (35)	WD											
	Total	\$ -		\$ -	\$ (35)	\$ (35)												
2016 Work Plan and Budgeting							EOR/WD											

<sup>1</sup>SMU conducted the fish survey on 7/28/15  
<sup>2</sup>SMU to obtain permits for work  
<sup>3</sup>SMU conducted recapture survey on 8/13/15

Note:  
 Green text = estimated cost (all invoices not yet received)  
 Black text = exact amount paid

2014 Work	Status
AIS Action Plan	Shields R14 - AIS 4-1-15.pdf

2015 Work	Status
Modeling & Preliminary Results	Memo Shields Modeling and Prelim Results_091615
Point-intercept survey	Shields R15 - Plants 1-20-16
SMU Carp and Fish Survey	Draft Received. Final Jan 2016



# Sylvan Lake

---

## 2015 Year-End Report

### Point-intercept Survey

- **Deliverables**
  - Blue Water Science: Point-intercept survey report

### Purple Loosestrife

- **Accomplishments**
  - EOR and CLFLWD staff performed survey on 7/27/15
  - Began planning for 2016 treatment/management
- **Deliverables**
  - EOR: Survey and management recommendations memo

### Zebra Mussels

- **Accomplishments**
  - Recruited one volunteer to monitor a sampler plate on private dock for early detection. No zebra mussels detected in 2015.

# Sylvan Lake Management



		Sub Totals				Annual	Timeline										
		Budget	Grants	BWS	Contractor	Balance	April	May	June	July	August	September	October	November	December	January	February
Sylvan Lake 2015 Activities		\$ 2,400		\$ (2,400)	\$ (2,035)	\$ (2,035)											
				0	0												
Point-Intercept Surveys	Work Task	2015 Budget	Grants	BWS	Contractor												
	Assessment	\$ 2,100		\$ (2,100)	\$ -	\$ -				BWS							
	Final Report	\$ 300		\$ (300)	\$ -	\$ -						BWS					
	Total	\$ 2,400		\$ (2,400)	\$ -	\$ -											
Purple Loosestrife	Work Task	2015 Budget	Grants	BWS	Contractor												
	Assessment			\$ -	\$ (1,500)	\$ (1,500)				EOR & WD 7/27/15 <sup>1</sup>							
	Final Report			\$ -	\$ (500)	\$ (500)					EOR						
	Total	\$ -		\$ -	\$ (2,000)	\$ (2,000)											
Zebra Mussels	Work Task	2015 Budget	Grants	BWS	Contractor												
	Samplers			\$ -	\$ (35)	\$ (35)	WD <sup>2</sup>										
	Total	\$ -		\$ -	\$ (35)	\$ (35)											
2016 Work Plan and Budgeting								EOR/WD									

<sup>1</sup>EOR & CLFLWD staff performed purple loosestrife survey on 7/27/15

<sup>2</sup>No zebra mussels observed on ZM sampler plate in 2015

Note:  
 Green text = estimated cost (all invoices not yet received)  
 Black text = exact amount paid

2014 Work	Status
AIS Action Plan	Sylvan R14 - AIS 4-1-15.pdf

2015 Work	Status
Purple Loosestrife Survey Results	Sylvan PLS memo 9-15-15
Point-intercept survey	Expect to receive by Feb 2016



# Forest Lake

---

## 2015 Year-End Report

### Curly-leaf Pondweed

- Accomplishments
  - Obtained DNR grant for \$8,800.
  - Treated 88 acres with herbicide on 5/4/15.
- Deliverables
  - Blue Water Science: Delineation and Assessment report.

### Eurasian Watermilfoil

- Accomplishments
  - Completed two consecutive herbicide treatments at an attempt at eradication. One on 7/1/15 and another on 7/2/15; each treatment totaled 30.3 acres.
- Deliverables
  - Blue Water Science: Delineation and Assessment report.
  - Press release re: zebra mussels and Eurasian watermilfoil discoveries.

### Flowering Rush

- Accomplishments
  - Obtained grants and contributions for FR management and outreach totaling \$52,790. (Washington County, DNR, City of Forest Lake, Forest Lake Lake Association)
  - Completed two rounds of large-patch herbicide treatment, two rounds of spot herbicide spraying and two rounds of hand-cutting.
    - First large patch herbicide treatment occurred on 8/4/15; total area was 6.5 acres.
    - Second large patch herbicide treatment occurred on 8/26/15; total area was 13 acres.
  - Coordinated with FLLA & EMWREP to perform education and outreach including public open house, presentations at FLLA annual meeting, newspaper articles, mailers, and social media ads.
- Deliverables
  - Blue Water Science: Delineation and assessment report.
  - 2015 management program summary with photos posted to CLFLWD website.

### Zebra Mussels

- Accomplishments
  - CLFLWD staff, along with 6 volunteers monitored a total of 12 sampler plates spread across all 3 basins and the outlet near North Shore Trail.
  - After initial zebra mussel discovery, CLFLWD enacted the Rapid Response plan, eventually resulting in a decision not to attempt eradication.
- Deliverables
  - Blue Water Science: July 2-3 Zebra Mussel Search report.
  - DNR: Zebra mussel inspection and infestation confirmation.



# Forest Lake

---

## 2015 Year-End Report

### **Zebra Mussels continued**

- Deliverables continued
  - Press release re: zebra mussels and Eurasian watermilfoil discoveries.
  - Blue Water Science: distribution and population estimate report.

### **Watercraft Inspections**

- Accomplishments
  - Inspectors performed 2,549 inspection hours on Forest Lake.
- Deliverables
  - Chisago County: 2015 AIS Prevention Report – January 13, 2016.

---

### **-----Other Lakeshed Projects-----**

#### **Forest Lake Diagnostic Study**

- Accomplishments
  - Initiated diagnostic study. Mailer sent to lakeshore homeowners requesting info on stormwater inputs to lake.

#### **Forest Lake North Shore Subwatershed Assessment**

- Accomplishments
  - Worked with WCD to complete shoreline inventory to provide data for study.

#### **Forest Lake Wetland Treatment Basin Implementation (3<sup>rd</sup> Lake Pond)**

- Accomplishments
  - Obtained BWSR grant for \$162,000.
- Deliverables
  - EOR: 3<sup>rd</sup> Lake Pond Feasibility Study memo and design



# Forest Lake Management



		Sub Totals					Annual	Timeline											
		Budget	Grants/Cont.	BWS	Contractor	CLFLWD	Balance	April	May	June	July	August	September	October	November	December	January	February	
Forest Lake 2015 Activities		\$ 28,500	\$ 87,089	\$ (17,450)	\$ (94,318)	\$ (8,471)	\$ 3,821												
Curly-Leaf Pondweed	Work Task	2015 Budget	Grants/Cont.	BWS	Contractor	CLFLWD	Balance												
	Delin-Assess			\$ (2,200)			\$ (2,200)	BWS (4/24/15)(6/10/15)											
	Permits/Admin					\$ (2,508)	\$ (2,508)	WD (4/13/15)											
	Management	\$ 11,000	\$ 23,800		\$ (24,992)		\$ 9,808	LMI (5/4/15) <sup>1</sup>											
	Final Report			\$ (300)			\$ (300)					BWS							
<b>Total</b>	<b>\$ 11,000</b>	<b>\$ 23,800</b>	<b>\$ (2,500)</b>	<b>\$ (24,992)</b>	<b>\$ (2,508)</b>	<b>\$ 4,800</b>													
Flowering Rush	Work Task	2015 Budget	Grants/Cont.	BWS	Contractor	CLFLWD	Balance												
	Ed./Outreach		\$ 8,092	\$ (600)	\$ (7,492)		\$ -	WD											
	Delin-Assess	\$ 7,500	\$ 3,700	\$ (3,700)			\$ 7,500					BWS							
	Permits/Admin					\$ (4,270)	\$ (4,270)	WD - 2 permits: MCC & PLM, 2 maps											
	Management	\$ 10,000	\$ 38,497	\$ (1,000)	\$ (40,437)		\$ 7,060						PLM & MCC <sup>2</sup>						
Final Report		\$ 2,500	\$ (2,500)	\$ -		\$ -								BWS					
<b>Total</b>	<b>\$ 17,500</b>	<b>\$ 52,789</b>	<b>\$ (7,800)</b>	<b>\$ (47,929)</b>	<b>\$ (4,270)</b>	<b>\$ 10,290</b>													
Eurasian Watermilfoil	Work Task	2015 Budget	Grants/Cont.	BWS	Contractor	CLFLWD	Balance												
	Delin-Assess	\$ -		\$ (2,400)	\$ -		\$ (2,400)					BWS							
	Permits/Admin			\$ -	\$ -	\$ (1,693)	\$ (1,693)					WD							
	Management		\$ 10,500		\$ (20,907)		\$ (10,407)												
	Final Report			\$ -	\$ -		\$ -									BWS			
<b>Total</b>	<b>\$ -</b>	<b>\$ 10,500</b>	<b>\$ (2,400)</b>	<b>\$ (20,907)</b>	<b>\$ (1,693)</b>	<b>\$ (14,500)</b>													
Zebra Mussels	Work Task	2015 Budget	Grants/Cont.	BWS	Contractor	CLFLWD	Balance												
	Rapid Resp.			\$ (4,750)	\$ -	\$ 380	\$ (4,750)	BWS (Plan 4/9/15) <sup>4</sup>											
	Samplers			\$ -	\$ (490)	\$ 380	\$ (490)	WD											
<b>Total</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ (4,750)</b>	<b>\$ (490)</b>	<b>\$ -</b>	<b>\$ (5,240)</b>													
2016 Work Plan and Budgeting																			

<sup>1</sup>Lake Mgmt Inc. performed herbicide treatment of CLP on 5/4/15 (88 acres)

<sup>2</sup>PLM Lake and Land Management performed herbicide treatment on large patches on 8/4/15 and 8/26/15, Minnesota Conservation Corps performed hand cutting/removal and spot herbicide treatment week of 7/27/15 and week of 8/24/15

<sup>3</sup>Lake Mgmt Inc performed herbicide treatment of EWM on 7/1/15 and 7/2/15 (30.3 acres ea.)

<sup>4</sup>Low end cost of ZM rapid response is \$4,750 - high could be \$25,450

Note:

Green text = estimated cost (all invoices not yet received)

Black text = exact amount paid

2015 Work	Status
CLP Delineation Map	2015 Forest CLP Treatment Sites April 24.jpeg
EWM Initial Investigation & Map	Forest Suspected EWM 6-15.pdf
EWM Final Investigation & Map	Forest EWM 6-30-15
FR delineation	Forest Lake Flowering rush 8.24.2014
FR assessment report	Forest R15 - Flowering rush 1-8-16
EWM assessment report	Expect to receive by Feb 2016
EWM & CLP assessment report	Expect to receive by Feb 2016
ZM distribution/pop report	Expect to receive by Feb 2016

Washington County Flowering Rush Grant		
Activity	Grant Amount	Total Spend
Education/Outreach	\$ 9,986	\$ 8,093
Chemical Treatment	\$ 9,114	\$ 9,114
Hand-Cutting	\$ 19,900	\$ 21,793
<b>Total</b>	<b>\$ 39,000</b>	<b>\$ 39,000</b>

FLA/City Contributions					
	CLP	FR	EWM	Inspections	Other AIS
<b>FLA</b>	\$ -	\$ 2,500	\$ 4,500	\$ 6,500	\$ -
<b>City of FL</b>	\$ 15,000	\$ 10,000	\$ 6,000	\$ 15,000	\$ 6,500

DNR AIS Control Grant for CLP and FR	
*Grant award depends on acreage treated	
Curly-leaf pondweed	\$ 8,800
Flowering rush	\$ 1,290





# Comfort Lake

## 2015 Year-End Report

---

### Curly-leaf Pondweed

- Accomplishments
  - Obtained treatment permission letters from all affected landowners
  - Treated 1 acre with herbicide on 5/8/15.
- Deliverables
  - Blue Water Science: Delineation and Assessment report combined with EWM report.

### Eurasian Watermilfoil

- Accomplishments
  - Obtained treatment permission letters from all affected landowners
  - Treated 0.5 acres with herbicide on 8/10/15.
  - Worked with DNR to communicate with homeowners regarding permit rules and regulations.
- Deliverables
  - Blue Water Science: Delineation and Assessment report combined with CLP report.

### Zebra Mussels

- Accomplishments
  - CLFLWD staff and one volunteer monitored 2 sampler plates for early detection. No zebra mussels detected in 2015.

### Watercraft Inspections

- Accomplishments
  - Inspectors performed 538.5 inspection hours on Comfort Lake
  - Chisago County contributed roughly \$5,000 for additional inspection hours on Comfort Lake
- Deliverables
  - Chisago County: 2015 AIS Prevention Report – January 13, 2016

---

### Other Lakeshed Projects

---

#### Shoreline Survey

- Deliverables
  - Blue Water Science: 2014 Comfort Lake shoreline survey to be combined with 2015 Little Comfort Lake shoreline survey

#### Sunrise River Water Quality Improvement Project (Bixby Park)

- Accomplishments
  - Project construction began 1/14/16. Sent construction notification mailers to residents near construction area.

#### Tributary Streams Biological Monitoring

- Deliverables
  - EOR: September 2015 Macroinvertebrate and Fish Community Survey Results memo

# Comfort Lake Management



		Sub Totals				Annual	Timeline											
		Budget	Grants	BWS	Contractor	Balance	April	May	June	July	August	September	October	November	December	January	February	
Comfort Lake 2015 Activities		\$ 2,000	\$ -	\$ (2,200)	\$ (843)	\$ (1,043)												
Curly-Leaf Pondweed	Work Task	2015 Budget	Grants	BWS	Contractor	Total												
	Delin-Assess	\$ 800		\$ (800)	\$ -	\$ -	BWS (4/18/15)(6/4/15)											
	Permitting			\$ -	\$ -	\$ -	WD (4/9/15)											
	Management	\$ 900		\$ -	\$ (357)	\$ 543	LMI (5/8/15) <sup>1</sup>											
	Final Report	\$ 300		\$ (300)	\$ -	\$ -					BWS							
	<b>Total</b>	<b>\$ 2,000</b>		<b>\$ (1,100)</b>	<b>\$ (357)</b>	<b>\$ 543</b>												
Eurasian Watermilfoil	Work Task	2015 Budget	Grants	BWS	Contractor	Total												
	Delin-Assess	\$ -		\$ (800)	\$ -	\$ (800)			BWS (6/4 & 6/29/15)									
	Permitting			\$ -	\$ -	\$ -	WD (4/9/15) & (7/1/15)											
	Management			\$ -	\$ (416)	\$ (416)			LMI (8/10/15) <sup>2</sup>									
	Final Report			\$ (300)	\$ -	\$ (300)					BWS							
	<b>Total</b>	<b>\$ -</b>		<b>\$ (1,100)</b>	<b>\$ (416)</b>	<b>\$ (1,516)</b>												
Zebra Mussels	Work Task	2015 Budget	Grants	BWS	Contractor	Total												
	Samplers			\$ -	\$ (70)	\$ (70)	WD											
	<b>Total</b>	<b>\$ -</b>		<b>\$ -</b>	<b>\$ (70)</b>	<b>\$ (70)</b>												
2016 Work Plan and Budgeting									EOR/WD									

<sup>1</sup>Lake Mgmt Inc. performed CLP herbicide treatment on 5/8/15 (1 acre)

<sup>2</sup>Lake Mgmt Inc. performed EWM herbicide treatment on 8/10/15 (0.5 acres)

Note:  
 Green text = estimated cost (all invoices not yet received)  
 Black text = exact amount paid

2014 Work	Status
Shoreline Survey	Not yet received
Lake Veg. Mgmt Plan (LVMP)	Cancelled
AIS Action Plan	Comfort R14 - AIS 12-30-14.pdf
CLP Delin & PI Plant Survey	Comfort R14 - CLP assessment 2014 1-27-15.pdf
EWM Mgmt Options	Comfort - Memo EWM 9-14 - homeowners.pdf

2015 Work	Status
CLP Delineation Map	2015 Comfort CLP Treatment Sites April 18.jpeg
CLP Assessment Map	2015 Comfort CLP June 4.jpeg
EWM Delineation Map	2015 Comfort EWM Treatment Sites June 4.jpeg
EWM Delineation Map	2015 Comfort EWM Treatment Sites June 29.jpeg
EWM & CLP Assessment Report	Expect to receive by Feb 2016

1/22/2016

# Budget Summary



Lake	2015 Budget	Grants/Cont.	BWS	Contractor	EOR	Balance
Comfort	\$ 2,000.00	\$ -	\$ (2,200.00)	\$ (843.00)		\$ (1,043.00)
Little Comfort	\$ 4,000.00	\$ -	\$ (5,600.00)	\$ (435.00)		\$ (2,035.00)
Moody	\$ 22,205.00	\$ -	\$ (6,000.00)	\$ (31,919.58)		\$ (15,714.58)
Bone	\$ 29,275.00	\$ -	\$ (8,100.00)	\$ (4,857.71)		\$ 16,317.29
Forest	\$ 28,500.00	\$ 87,089.48	\$ (17,450.00)	\$ (94,318.00)		\$ 3,821.48
Shields	\$ 1,900.00	\$ -	\$ (1,900.00)	\$ (1,162.58)		\$ (1,162.58)
Sylvan	\$ 2,400.00	\$ -	\$ (2,400.00)	\$ (2,035.00)		\$ (2,035.00)
Boat Insp.	\$ 30,000.00	\$ 53,000.00	\$ -	\$ (75,000.00)		\$ 8,000.00
<b>Total</b>	\$ 120,280.00	\$ 140,089.48	\$ (43,650.00)	\$ (210,570.87)	\$ (48,285.27)	\$ <b>(42,136.66)</b>

Engineering AIS Program Costs		
Date	Invoice #	Total
2/9/2015	00376-0135-1	\$ (4,950.65)
3/12/2015	00376-0135-2	\$ (8,836.50)
4/9/2015	00376-0135-3	\$ (2,129.75)
5/12/2015	00376-0135-4	\$ (6,060.00)
6/10/2015	00376-0135-5	\$ (2,751.63)
7/9/2015	00376-0135-6	\$ (7,639.38)
8/17/2015	00376-0135-7	\$ (9,909.86)
9/10/2015	00376-0135-8	\$ (2,189.00)
10/13/2015	00376-0135-9	\$ (1,574.00)
11/10/2015	00376-0135-10	\$ (430.00)
12/9/2015	00376-0135-11	\$ (1,170.50)
1/11/2016	00376-0135-12	\$ (644.00)
	<b>Total</b>	\$ (48,285.27)

# 2015 AIS and Lake Report Inventory

Lake	Reponsible	Report Description	Submittal Status
Moody	BWS	Curlyleaf pondweed delineation and assessments	Expected Jan/Feb 2016
Moody	BWS	Point-intercept survey	Expected Jan/Feb 2016
Moody	BWS	Lake bottom sonar map	Received
Moody	BWS	Mini-fyke netting of YOY carp report	Received
Moody	SMU	Common carp and fish community survey	Draft received. Final Jan 2016
Bone	BWS	Curlyleaf pondweed delineation	Received
Bone	BWS	Curlyleaf pondweed assessment	Expected Jan/Feb 2016
Bone	BWS	EWM delineation	Received
Bone	BWS	EWM assessments	Expected Jan/Feb 2016
Bone	BWS	Lake bottom sonar map	Received
Bone	BWS	Mini-fyke netting of YOY carp report	Received
Bone	BWS	Common carp and fish community survey	Draft received. Final Jan 2016
Little Comfort	BWS	Filamentous Algae Map	Received
Little Comfort	BWS	Shoreline survey	Expected Jan/Feb 2016
Little Comfort	BWS	Curlyleaf pondweed delineation	Received
Little Comfort	BWS	Point-intercept survey	Expected Jan/Feb 2016
Shields	BWS	Point-intercept survey	Received
Shields	SMU	Common carp and fish community survey	Draft received. Final Jan 2016
Sylvan	BWS	Point-intercept survey	Expected Jan/Feb 2016
Sylvan	EOR	Purple loosestrife survey and mgmt recs	Received
Forest	BWS	Curlyleaf pondweed delineation	Received
Forest	BWS	Curlyleaf pondweed assessment	Expected Jan/Feb 2016
Forest	BWS	Flowering rush delineation	Received
Forest	BWS	Flowering rush assessments and final report	Expected Jan/Feb 2016
Forest	BWS	ZM population and distribution report	Expected Jan/Feb 2016
Forest	BWS	EWM Assessment plus ZM and FR	Received
Forest	BWS	EWM Delineation & Assessment report	Expected Jan/Feb 2016
Comfort	BWS	Curlyleaf pondweed delineation	Received
Comfort	BWS	Curlyleaf pondweed assessment	Expected Jan/Feb 2016
Comfort	BWS	EWM delineation	Received
Comfort	BWS	EWM assessment	Expected Jan/Feb 2016
Comfort	BWS	2014 Shoreline survey	Expected Jan/Feb 2017