



# Bone Lake

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## 2016 AIS Management Plan

### Curly-leaf Pondweed

- Completed Activities
  - Applied for DNR permit (submitted 1/20/2016)
  - Applied for DNR grant (submitted 1/20/2016)
  - Obtained quotes for herbicide application (Lake Management Inc. & PLM)
- Planned/Ongoing Activities
  - Early season delineation (also look for EWM) – Blue Water Science (April 2016)
  - Obtain input from Bone Lake Association on delineation (April 2016)
  - Herbicide treatment (May 2016)
  - Follow-up assessment – Blue Water Science (June 2016)
- Deliverables
  - Delineation and assessment report – Blue Water Science (Fall/Winter 2016)

### Eurasian Watermilfoil

- Completed Activities
  - Applied for DNR permit (submitted 1/20/2016)
  - Applied for DNR grant (submitted 1/20/2016)
  - Obtained quotes for herbicide and mechanical treatment (Lake Management Inc., PLM Lake and Land Management, Dive Guys, and Waterfront Restoration)
- Planned/Ongoing Activities
  - Research granular herbicide application techniques (communicate with Sugar Lake representative regarding granular precision application)
  - Communicate with Carnelian-Marine-St. Croix Watershed District about innovative control in Big Marine Lake
  - Delineation – Blue Water Science (June 2016)
  - Obtain input from Bone Lake Association on delineation (June 2016)
  - Treatment – (May-July 2016)
  - Follow-up assessment – Blue Water Science (July or August 2016)
- Deliverables
  - Delineation and assessment report – Blue Water Science (Fall/Winter 2016)

### Rough Fish Management

- Planned/Ongoing Activities
  - Continue coordination management activities with EOR and Blue Water Science
  - Coordinate spring/fall harvest using flow netting technique and/or baiting
  - Contract with SMU to track radio-tagged carp prior to harvest activities

## **Zebra Mussels**

- Planned/Ongoing Activities
  - Coordinate with one volunteer to monitor a sampler plate on a private dock for early detection of zebra mussels.
  - District staff will monitor a second sampler plate on the DNR public dock.

## **Watercraft Inspections**

- Completed Activities
  - Applied for cost-share grant to receive additional watercraft inspection hours by DNR staff
  - Met with Chisago County AIS representatives to plan summer program
- Planned Activities
  - Chisago County will hire 5 inspectors to rotate among CLFLWD public accesses. One inspector will rotate between Comfort Lake and Bone Lake. The other 4 inspectors will rotate between the 3 public accesses on Forest Lake.
- Deliverables
  - 2016 AIS Prevention Report – Chisago County (January 2017)

# 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 2016 Activities		\$ 21,500	\$ -	\$ (15,400)	\$ (13,900)	\$ (7,800)												
<b>Curly-Leaf Pondweed</b>	<b>Work Task</b>	<b>2016 Budget</b>	<b>Grants</b>	<b>BWS</b>	<b>Contractor</b>	<b>Total Expense</b>												
	Delin-Report			\$ (2,100)		\$ (2,100)	BWS					BWS						
	Permitting	\$ 2,500				\$ -	WD											
	Management		\$ 600		\$ (900)	\$ (900)		TBD										
	<b>Total</b>	<b>\$ 2,500</b>		<b>\$ (2,100)</b>	<b>\$ (900)</b>	<b>\$ (3,000)</b>												
<b>Eurasian Watermilfoil</b>	<b>Work Task</b>	<b>2016 Budget</b>	<b>Grants</b>	<b>BWS</b>	<b>Contractor</b>	<b>Total Expense</b>												
	Delin-Report			\$ (2,000)		\$ (2,000)	BWS					BWS						
	Permitting	\$ 2,500				\$ -	WD											
	Management		\$ 600		\$ (1,500)	\$ (1,500)		TBD										
	<b>Total</b>	<b>\$ 2,500</b>		<b>\$ (2,000)</b>	<b>\$ (1,500)</b>	<b>\$ (3,500)</b>												
<b>Rough Fish Management</b>	<b>Work Task</b>	<b>2016 Budget</b>	<b>Grants</b>	<b>BWS</b>	<b>Contractor</b>	<b>Total Expense</b>												
	Telemetry				\$ (500)	\$ (500)			SMU									
	Flow Trapping			\$ (4,000)		\$ (4,000)			BWS									
	Spawning Survey	\$ 10,000		\$ (7,300)		\$ (7,300)			BWS									
	Harvest				\$ (5,000)	\$ (5,000)			Comm. Fisherman									
	<b>Total</b>	<b>\$ 10,000</b>		<b>\$ (11,300)</b>	<b>\$ (5,500)</b>	<b>\$ (16,800)</b>												
<b>Zebra Mussels</b>	<b>Work Task</b>	<b>2016 Budget</b>	<b>Grants</b>	<b>BWS</b>	<b>Contractor</b>	<b>Total Expense</b>												
	Samplers	\$ 500				\$ -	WD											
	<b>Total</b>	<b>\$ 500</b>		<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>												
<b>Boat Launches</b>	<b>Work Task</b>	<b>2016 Budget</b>	<b>Grants/Cont.</b>	<b>BWS</b>	<b>Contractor</b>	<b>Total Expense</b>												
	Inspection Hours	\$ 6,000			\$ (6,000)	\$ (6,000)	WD/Chisago Co.											
	<b>Total</b>	<b>\$ 6,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ (6,000)</b>	<b>\$ (6,000)</b>												
<b>2016 Work Plan and Budgeting</b>							<b>WD/EOR</b>											

\*Figures in italics represent estimates based off quotes or 2015 expenses

2015 Work	Status
CLP Delineation & Assessment	Received
EWM Delineation & Assessment	Received
Lake bottom sonar map	Received
Mini-fyke netting report	Received
Carp and fish pop. Surveys	Received

2016 Work	Status
CLP Delin & Assessment	
EWM Delin & Assessment	
Carp spawning habitat survey	
Carp flow trap netting	
Carp Telemetry	

2016 EWM Treatment Cost Estimates									
Based on 3.5 acres of EWM									
Liquid Herbicide (Triclopyr)		Liquid Herbicide (2,4-D)		Granular Herbicide (Triclopyr)		Granular Herbicide (2,4-D)		Mechanical Pulling	
PLM Lake and Land Mgmt	Lake Mgmt Inc.	PLM Lake and Land Mgmt	Lake Mgmt Inc.	PLM Lake and Land Mgmt	Lake Mgmt Inc.	PLM Lake and Land Mgmt	Lake Mgmt Inc.	Dive Guys LLC	Wtrfrnt Restor. LLC
\$2,191	\$1,663	\$1,190	\$1,435	\$5,030		\$2,884		\$45,738	