

# 2025 Aquatic Invasive Species Program Yearend Summary

Forest Lake

Bone Lake

Comfort Lake

Shields Lake

Moody Lake

Little Comfort Lake

Lake Keewahtin

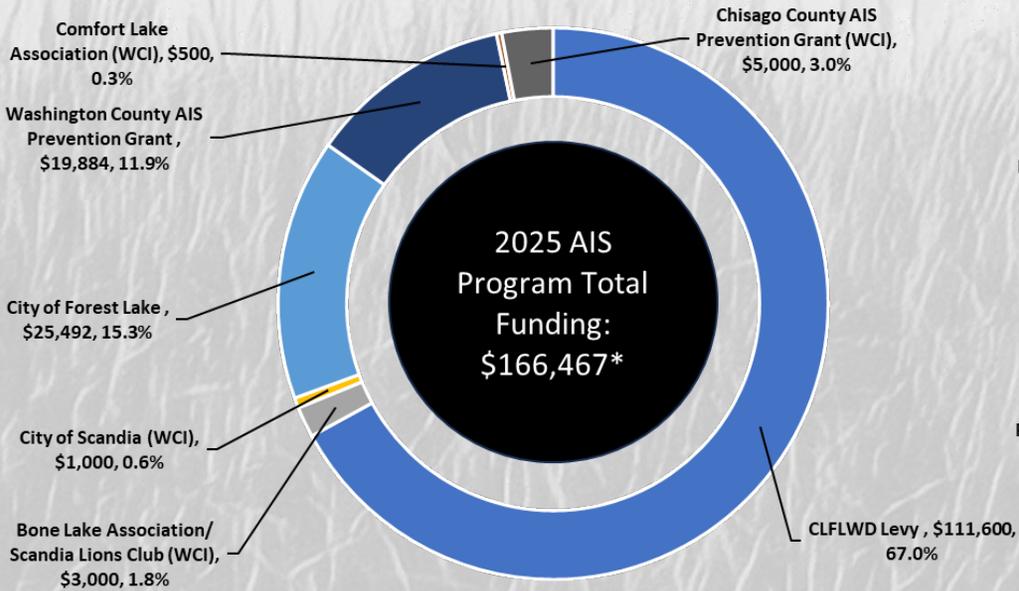


**CLFLWD**  
WATERSHED DISTRICT

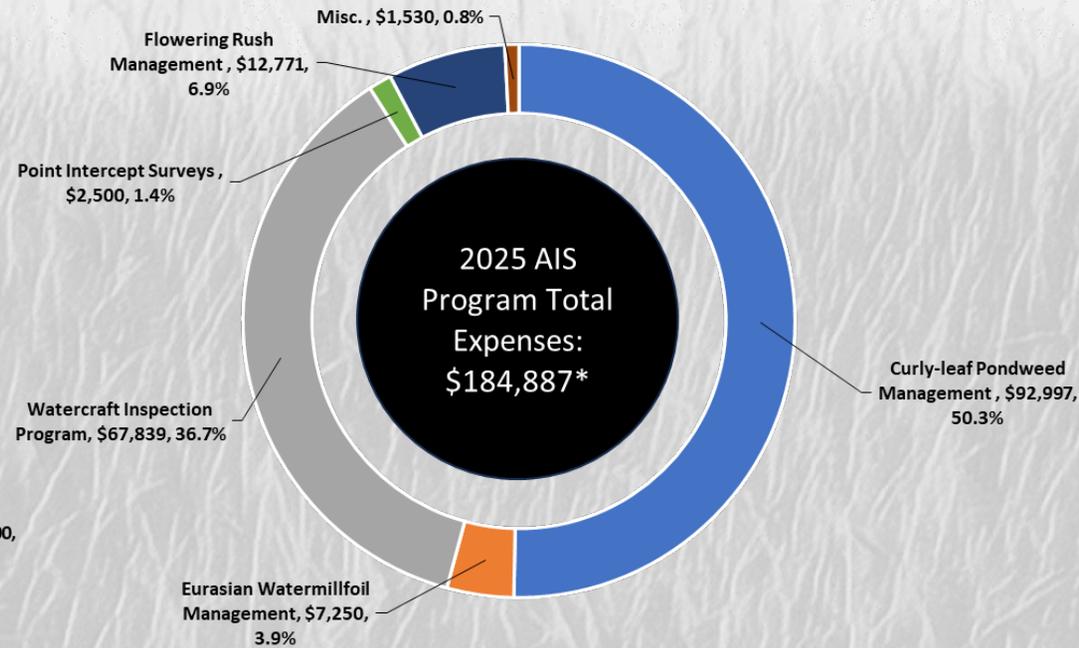
# District Wide AIS Budget

## 2025 Yearend Summary

### CLFLWD's 2025 District-Wide AIS Program Funding



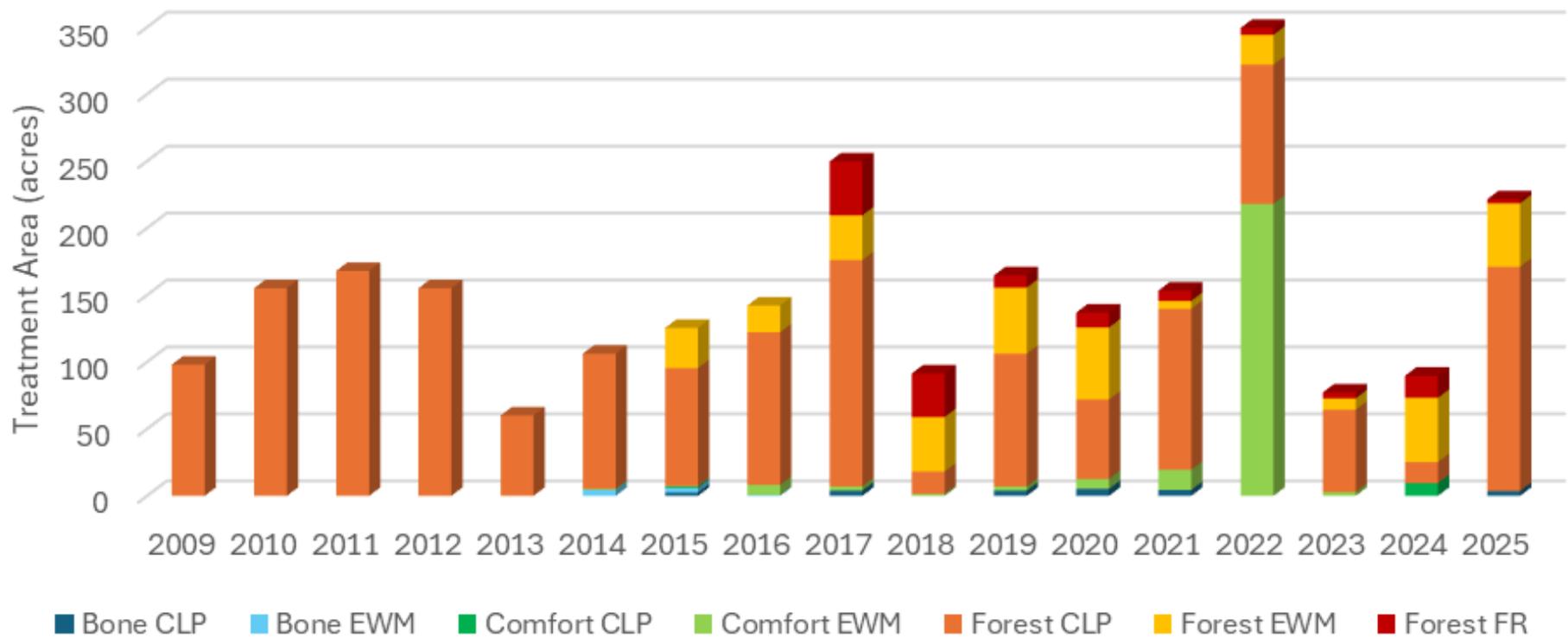
### CLFLWD's 2025 District-Wide AIS Program Expenses



# District Wide Historical Treatments

## 2025 Yearend Summary

CLFLWD Historical Large Lake Total Treatment Area



Curly-leaf pondweed – CLP  
Eurasian watermilfoil – EWM  
Flowering Rush – FR

# Moody Lake

## 2025 Yearend Summary

### Aeration System

- **Monitoring:** Oxygen levels were monitored throughout the winter, once dissolved oxygen approached the 5mg/L threshold the aeration system was activated.
- **Operation:** The District continued operation of the aeration system in winter months (2/13/25–3/17/25) to increase dissolved oxygen, reduce winter fish-kills, and support a healthy fishery that suppresses invasive fish populations. This was the 10<sup>th</sup> consecutive winter the District has run the aerator.

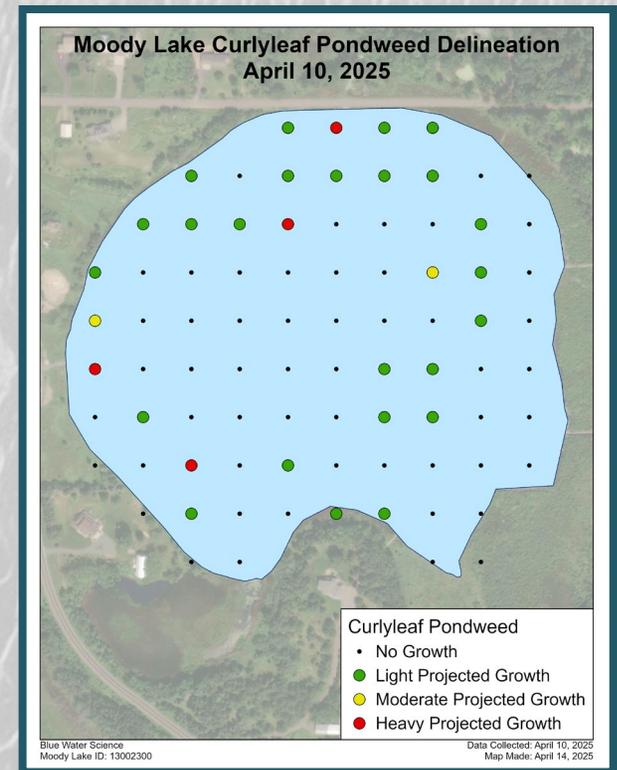
### Curly-leaf Pondweed (CLP)

- **Delineation:** On April 10th, Blue Water Science (BWS) conducted a delineation point intercept survey to assess the CLP population. Growth was primarily light, and no treatment was recommended again this year
- **History:** no CLP has been treated on Moody Lake 2021–2025
  - 2019: 7.81 acres
  - 2020: 3.1 acres

### Native Aquatic Plant Transplanting Project – 2023

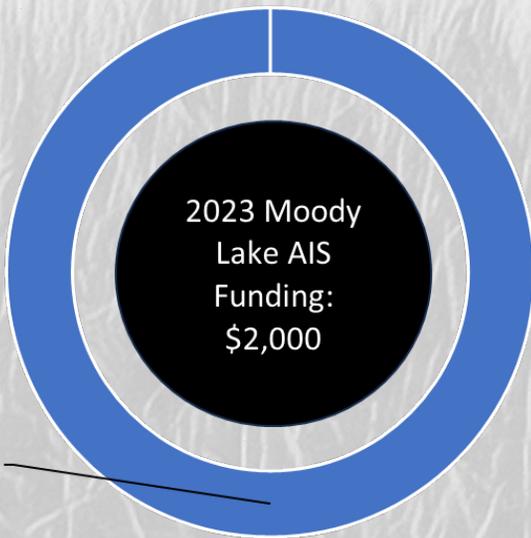
- **History:** District staff and a researcher from the University of Minnesota implemented a native aquatic plant transplanting project on Moody Lake. A variety of native species were collected from Keewahin Lake and planted in Moody Lake.
- **Monitoring:** District staff performed visual assessments of the transplant locations. Of the sites observed had dense stands of native Coontail, though additional aquatic plants were present potentially indicating successful transplantation

### Curly-leaf Pondweed (CLP)



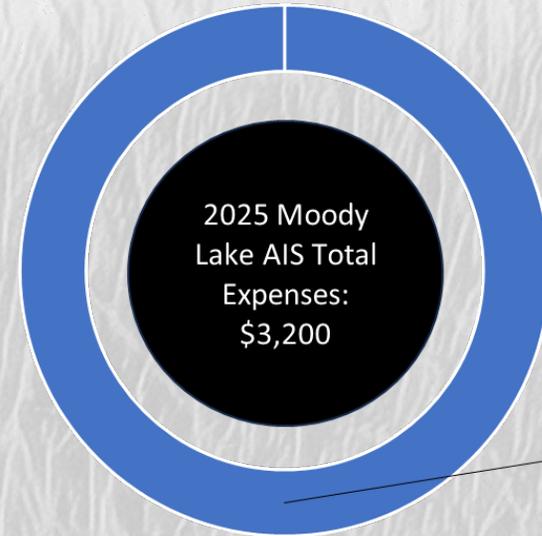
# Moody Lake - 2025 Budget Summary

## CLFLWD's 2025 Moody Lake AIS Funding



CLFLWD Levy - AIS Management, \$2,000, 100%

## CLFLWD's 2025 Moody Lake AIS Program Expenses



Curly-leaf Pondweed Survey, \$3,200, 100%

# Bone Lake

## 2025 Yearend Summary

### Curly-leaf Pondweed (CLP)

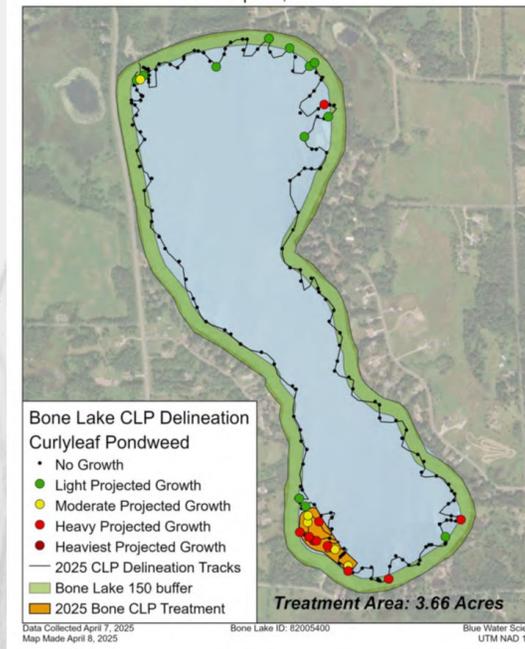
- **Delineation:** Performed April 7<sup>th</sup> by Blue Water Science (BWS), detected 3.66 acres of moderate to heavy CLP growth that was recommended for treatment.
- **Treatment:** Lake Management Inc (LMI) conducted the recommended 3.66-acre treatment May 8<sup>th</sup>
- **Assessment:** Performed in July by BWS determined that treatment area had good control

### Eurasian Watermilfoil (EWM)

- **Delineation:** Performed July 28<sup>th</sup> by BWS detected several locations of light EWM growth which would not impede water quality or recreational enjoyment .
- **Treatment:** No treatment was recommended or performed
- **Assessment:** Performed by BWS (see BWS summary report)

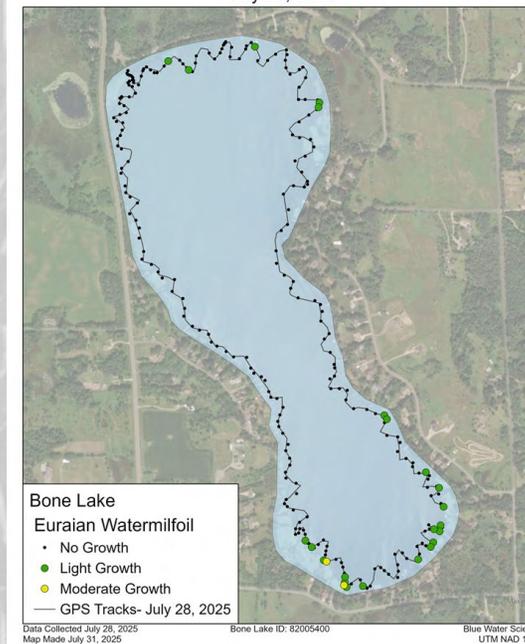
## Curly-leaf Pondweed (CLP)

Bone Lake Curlyleaf Pondweed Treatment Area  
April 7, 2025

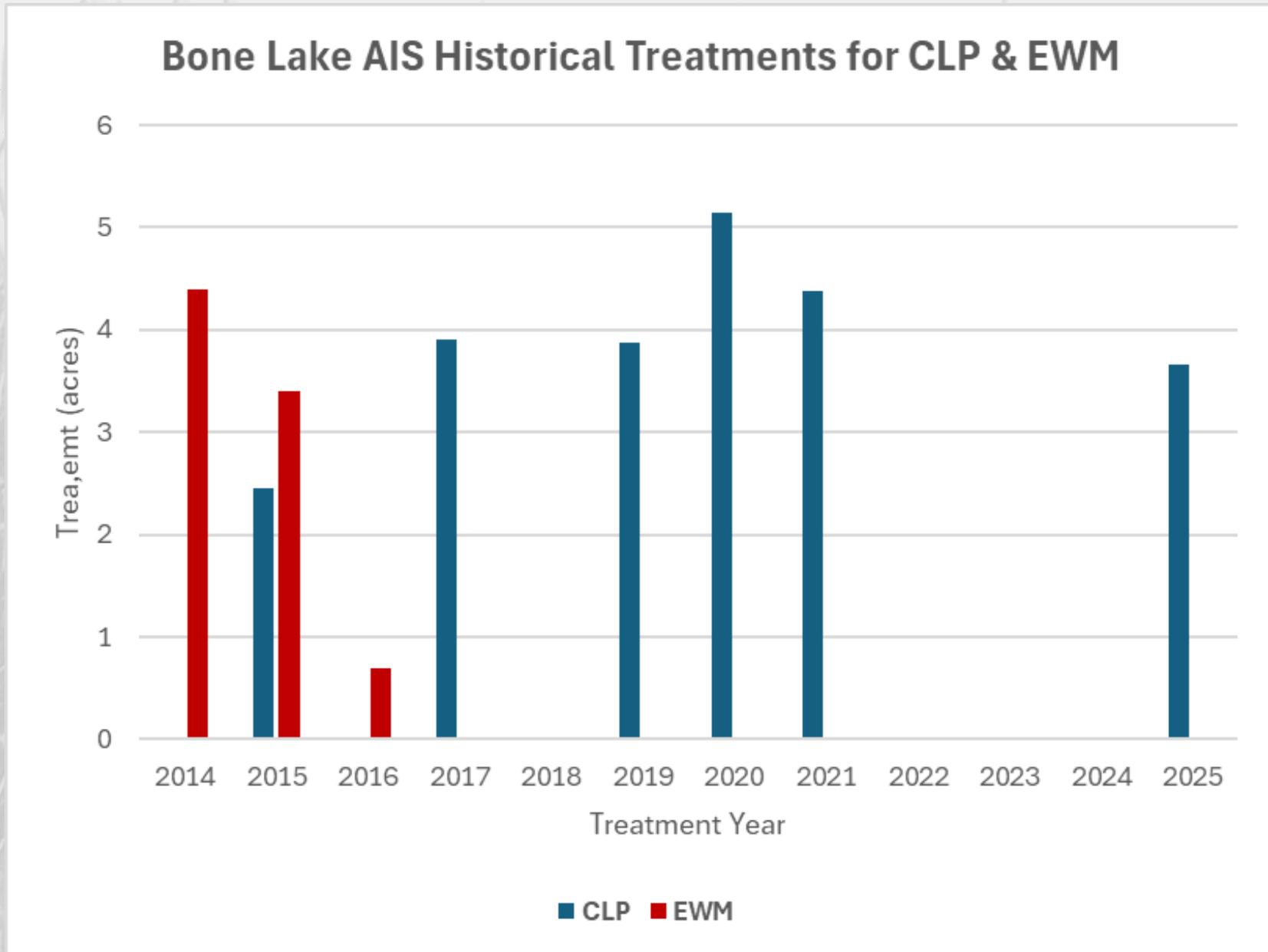


## Eurasian Watermilfoil (EWM)

Bone Lake Eurasian Watermilfoil Growth  
July 28, 2025



# Bone Lake – Historical AIS Treatment Area



# Bone Lake – 2025 Yearend Summary

## Zebra Mussels

- **Sampler Plates:** In 2025, several Bone Lake residents volunteered to host a sampler plate on their property, No zebra mussels were found on sampler plates or water related equipment.
- **History:** On May 28, 2019, six juvenile zebra mussels were discovered near the Bone Lake public access dock. Following this discovery, an eradication attempt was conducted by the District and partners. However, on July 20, 2023, BWS found 3 juvenile zebra mussels while performing a point intercept survey. The discovery was communicated to the DNR and long-term population monitoring resumed.

## Rough Fish Management

- **Fish Barrier:** Staff maintained and managed the stop logs for the inlet barrier and cleared debris as necessary for both the inlet and outlet of Bone Lake.

## Watercraft Inspections (brief overview)

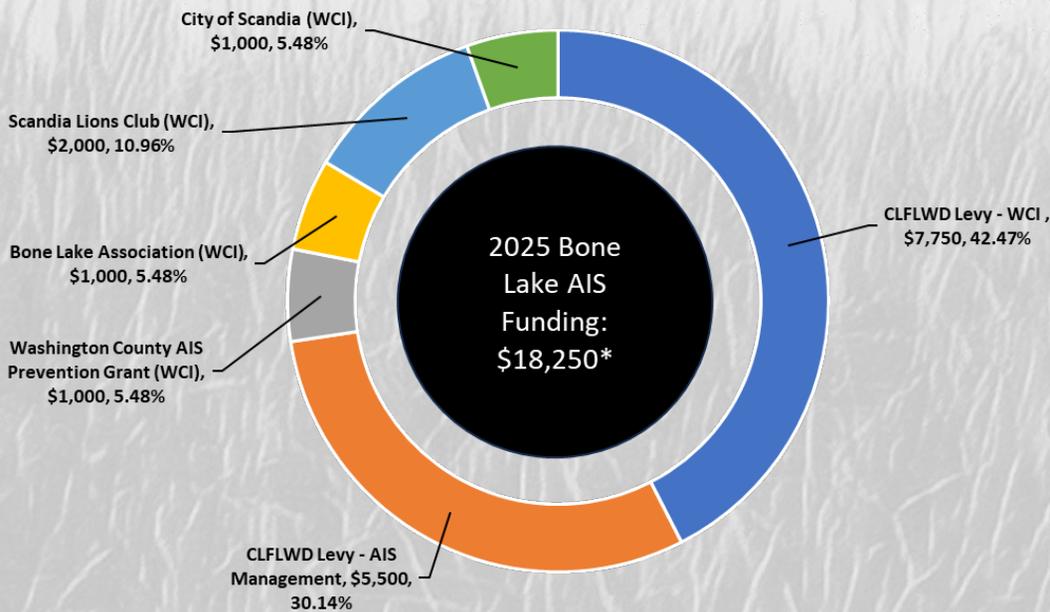
- **Hours:** 542 hours were worked at Bone Lake
- **Surveys:** 535 inspection survey were performed at Bone Lake
- **Reports:**
  - **Chisago County:** 2025 AIS Prevention Report (Expected in early 2026)
  - **CLFLWD:** See 2025 Watercraft Inspection Program Report



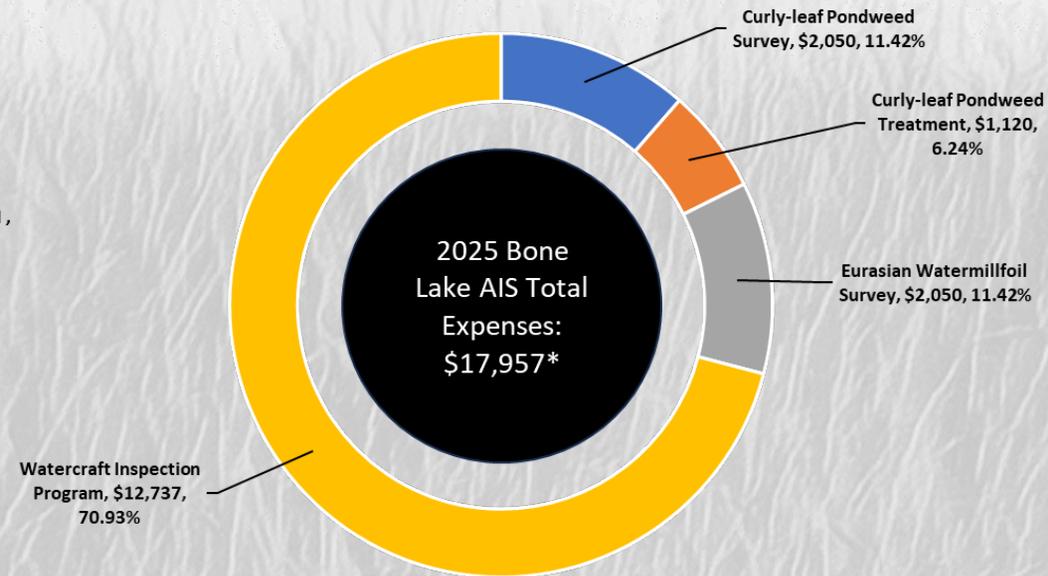
Sunset at Bone Lake Public Access

# Bone Lake - 2025 Budget Summary

## CLFLWD's 2025 Bone Lake AIS Funding



## CLFLWD's 2025 Bone Lake AIS Program Expenses



\*Financial contributions from the Bone Lake Association, Scandia Lions Club, & the City of Scandia are used exclusively for the Watercraft Inspection Program activities at the Bone Lake public launch

# Little Comfort Lake

## 2025 Yearend Summary

### Macrophyte Meander Survey

- **Overview:** On August 1<sup>st</sup> BWS and District staff conducted a meandering survey to assess aquatic plant biodiversity. Both CLP and EWM were observed but in limited quantities. Whereas many of the points contained high densities of native Coontail.
- **Report:** See Blue Water Science Delineation Report (Summary distributed in December, full report in January 2026).

### Curly-leaf Pondweed (CLP)

- **Overview:** Given the historical sparse growth in the lake, no removal was deemed necessary or budgeted for in 2025.

### Eurasian Watermilfoil (EWM)

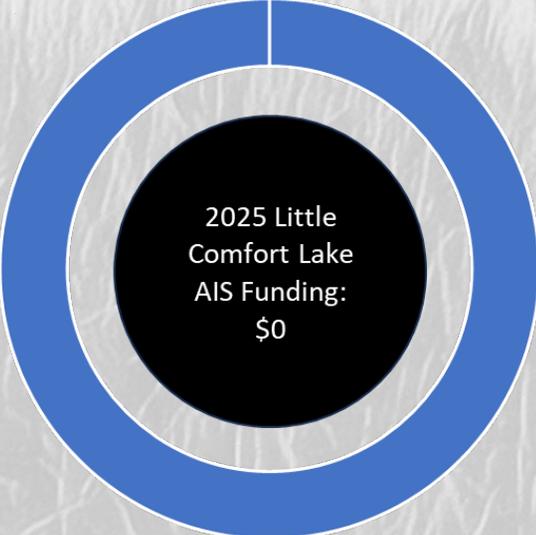
- **Overview:** Given the sparse growth observed during the macrophyte delineation survey, no removal was deemed necessary in 2025.
- **History:** EWM was first discovered in Little Comfort Lake in 2021 by the MN department of Natural Resources Invasive Species Program, though no treatments have been deemed necessary due to low population density



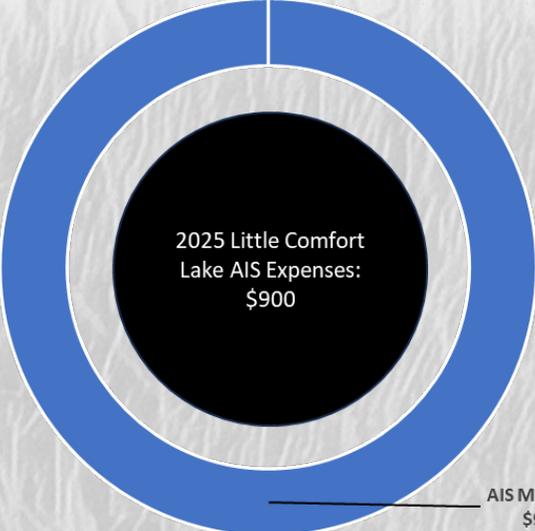
Mike Sandager performing aquatic plant identification

# Little Comfort Lake - 2025 Budget Summary

CLFLWD's 2023 Little Comfort Lake AIS Funding



CLFLWD's 2023 Little Comfort Lake AIS Program Expenses



AIS Meander Survey, \$900, 100%

# Shields Lake

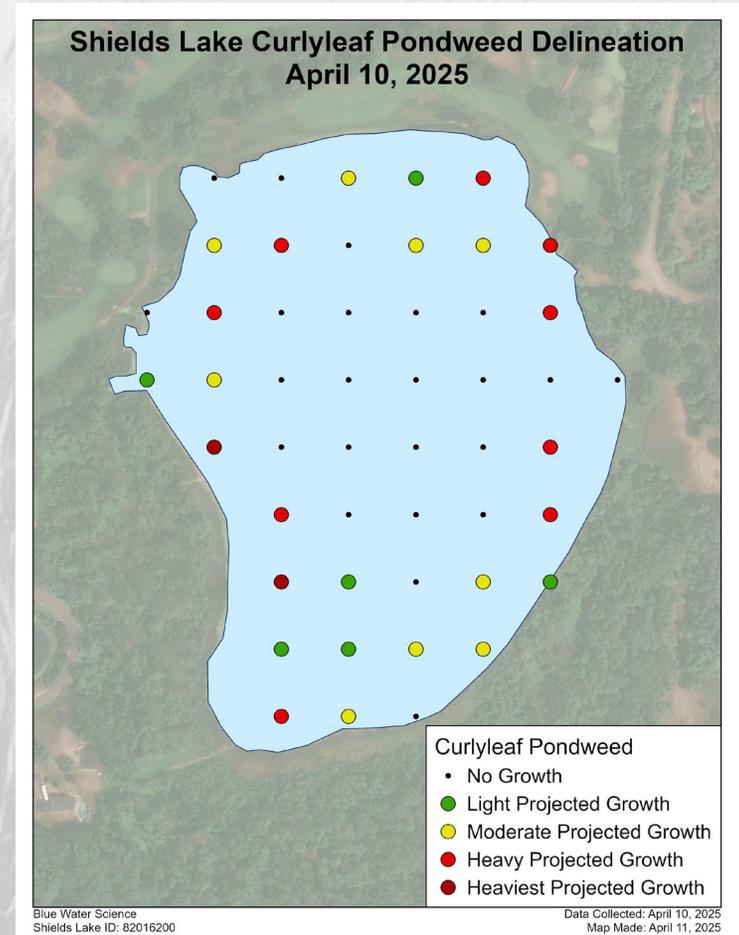
## 2025 Yearend Summary

### Aeration System

- **Operation:** The District continued operation of the aeration system in winter months (2/13/25–3/17/25) to increase dissolved oxygen, reduce winter fish-kills, and support a healthy fishery that suppresses invasive fish populations. This was the 10th winter the District has run the aerator.
- **Monitoring:** Oxygen levels were monitored throughout the winter and were found to be at healthy levels for the whole season.

### Curly-leaf pondweed (CLP)

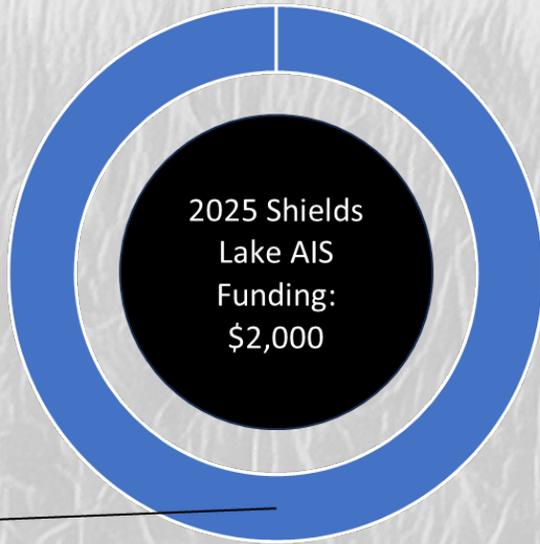
- **Delineation:** Performed on April 25<sup>th</sup>, BWS observed potential areas with heavy growth but did not recommend any treatment to promote native aquatic plant growth.
- **Report:** Blue Water Science Delineation and Assessment Report (Summary distributed in December, full report in January 2026).



### Curly-leaf Pondweed (CLP)

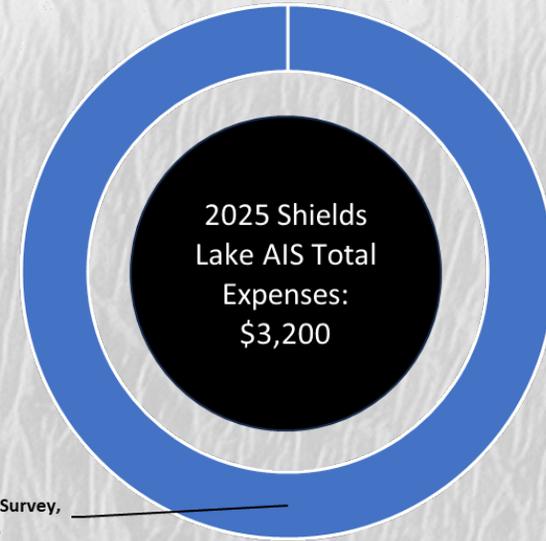
# Shields Lake - 2025 Budget Summary

## CLFLWD's 2025 Shields Lake AIS Funding



CLFLWD Levy - AIS Management, \$2,000, 100%

## CLFLWD's 2025 Shields Lake AIS Program Expenses



Curly-leaf Pondweed Survey, \$3,200, 100%

# Lake Keewahtin

## 2025 Yearend Summary

### Macrophyte Delineation Survey

- **Overview:** On August 12<sup>th</sup> BWS and District staff conducted a Macrophyte Point Intercept survey to assess aquatic plant biodiversity.
- **Observations:** Overall Keewahtin has a great amount of biodiversity of native aquatic vegetation.
- **Report:** See Blue Water Science Macrophyte Delineation Survey (Summary distributed in December, full report in January 2026).

### Purple Loosestrife (PL)

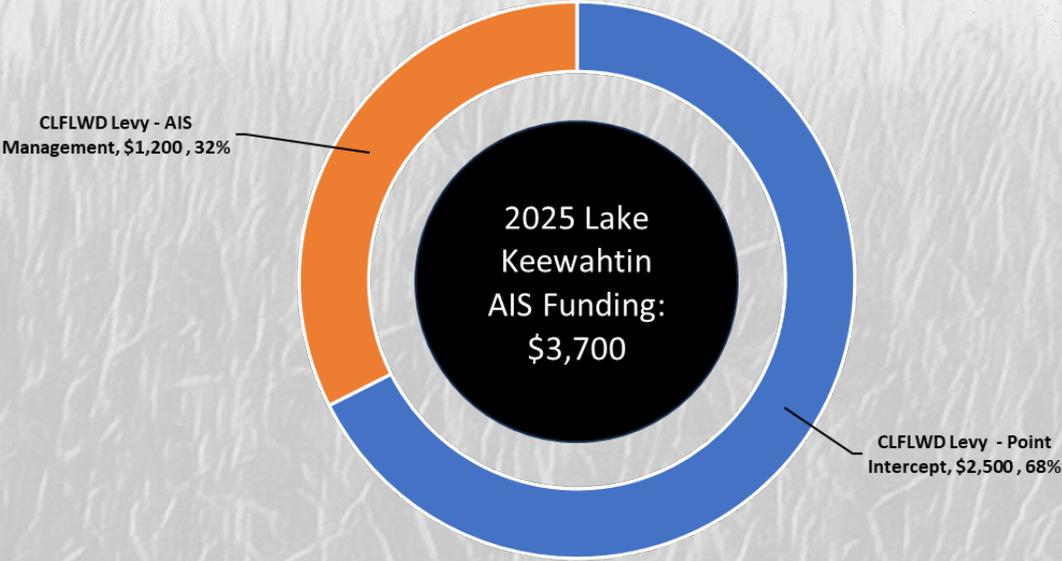
- Staff performed a shoreline assessment of purple loosestrife with the purpose of locating future sites suitable for biocontrol management efforts.



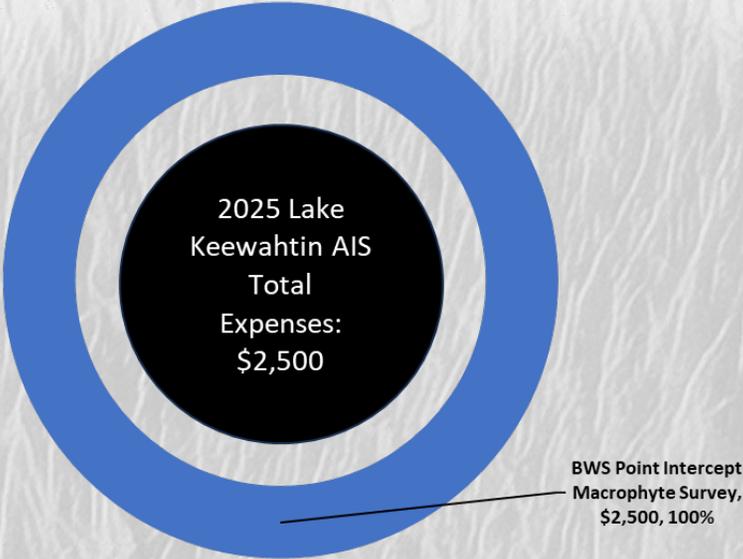
Kathrine Miller performing  
Purple loosestrife identification

# Lake Keewahtin - 2025 Budget Summary

CLFLWD's 2025 Lake Keewahtin AIS Funding



CLFLWD's 2025 Lake Keewahtin AIS Program Expenses



# Forest Lake – BWS Delineation/Assessment

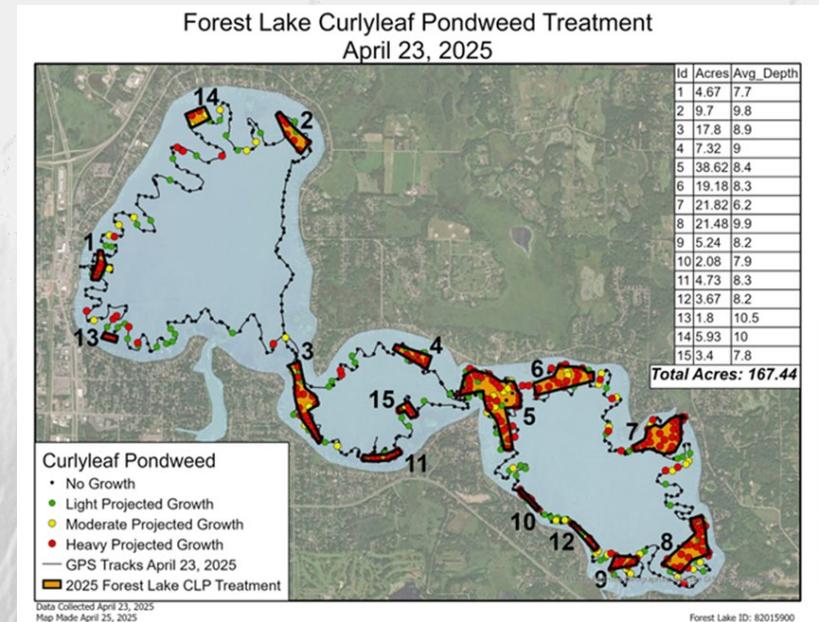
## Curly-leaf Pondweed (CLP)

- **Delineation:** Performed on April 23<sup>rd</sup>, fifteen treatment locations totaling 167.44 acres were identified for treatment.
- **Treatment:** Treatment performed on May 22<sup>nd</sup> on all 167.44 acres. Flumioxazin was required to be used as a new strain of walleye fry which are susceptible to Diquat had been stocked by DNR Fisheries. Note: this nearly doubles the cost of any treatment area.
- **Assessment:** Performed on June 20<sup>th</sup> and found it had excellent control.

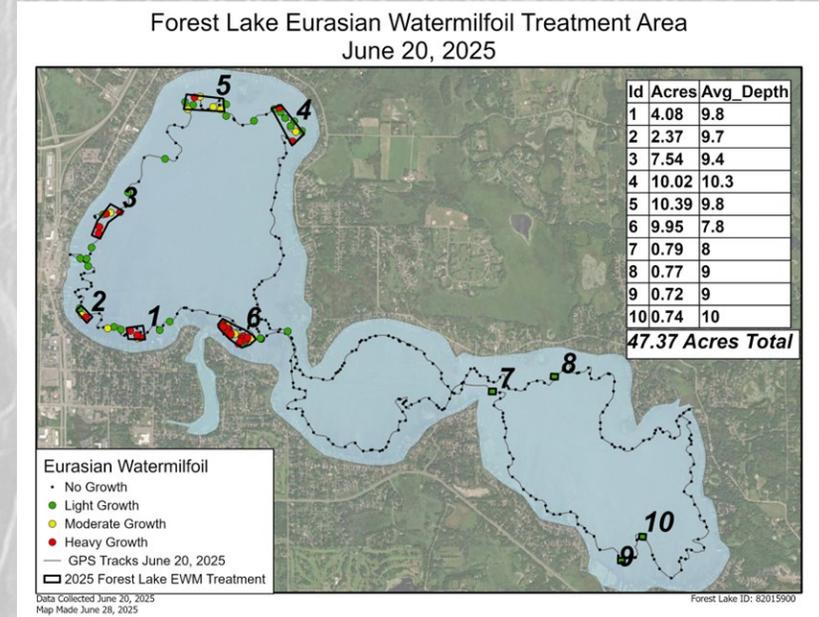
## Eurasian Watermilfoil (EWM)

- **Delineation:** Performed on June 20<sup>th</sup> detected 47.37 acres that were recommended for treatment. Majority of the EWM observed was in basin 1. However, several survey points detected EWM for the first time in basin 3.
- **Treatment:** The Forest Lake Lake Association (FLLA) performed a treatment for all 47.37 acres of EWM.
- **Assessment:** Performed by BWS September 15<sup>th</sup> and October 24<sup>th</sup> determined good control in treatment areas, but several new sites were observed.

## Curly-leaf Pondweed (CLP)



## Eurasian Watermilfoil (EWM)



# Forest Lake – 2025 Flowering Rush (FR)

## Flowering Rush Management Activities

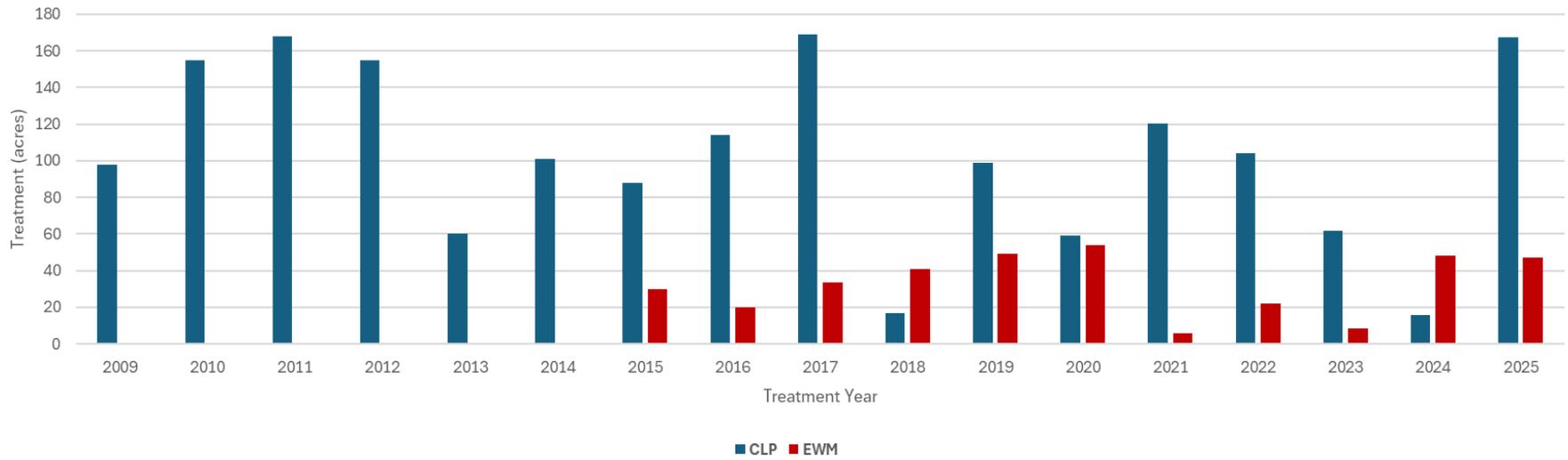
- **Delineation:** Initial survey performed July 11<sup>th</sup> by BWS detected 69 flowering rush sites (5,970 sq ft) including 5 sites with flowers.
- **Treatment #1:** Spot and Area Treatments performed by PLM on August 13<sup>th</sup>.
- **2<sup>nd</sup> Delineation/Assessment:** performed by BWS September 15<sup>th</sup> identified 63 flowering rush sites (8070 sq ft) including 2 with flowers. Overall control in treatment areas was good with some observed regrowth and new sprouting.
- **Treatment #2:** Spot and Area Treatments performed by PLM on September 29<sup>th</sup>.
- **Final Assessment Survey:** performed October 24<sup>th</sup> by BWS observed 28 flowering rush sites (2,670 sq ft) with no flowers.
- **Flower Removal:** District staff performed 29 hours of seedhead removals throughout the growing season and collected 591 seedheads.

**Assessment:** Overall Flowering rush growth was reduced throughout the 2025 growing season likely due to higher water levels resulting in decreased suitable growing conditions. Additionally, treatments combined with seed head clippings provided good control.

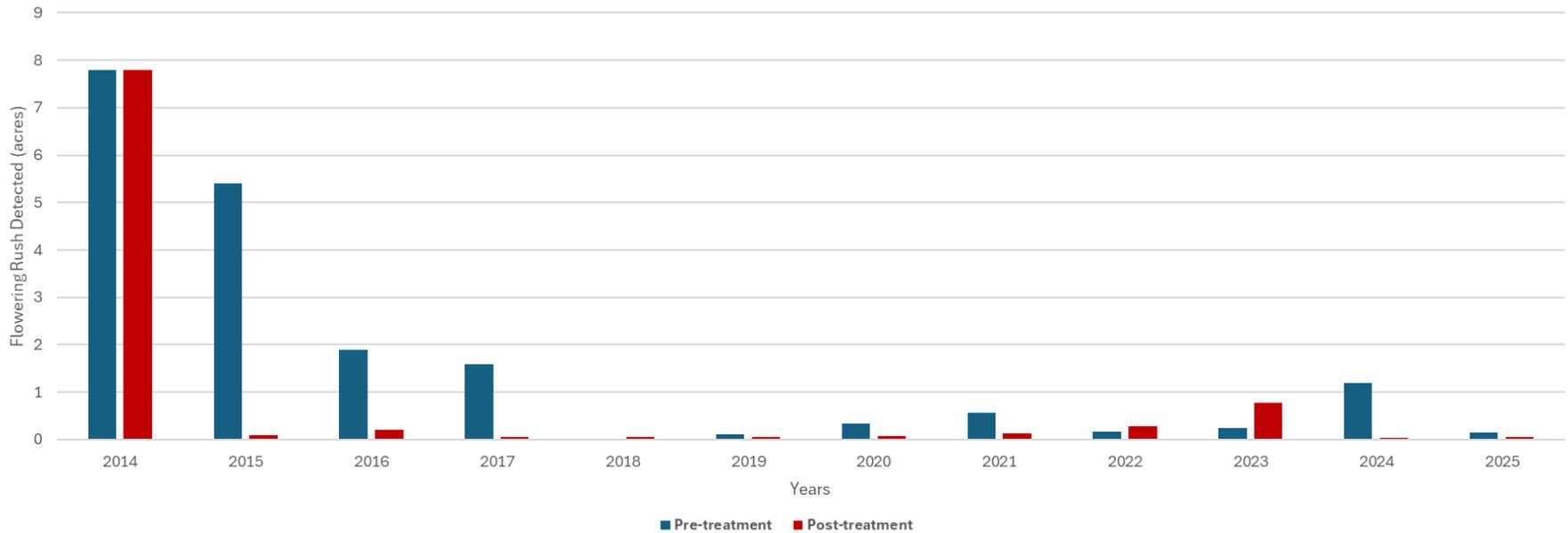
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# Forest Lake – Historical AIS Annual Treatment Area

## Forest Lake Historical Eurasian Watermilfoil & Curl-leaf Pondweed Management



## Forest Lake Historical Flowering Rush Pre/Post Treatment Area



# Forest Lake

## 2025 Yearend Summary

### Purple Loosestrife

- Staff performed a shoreline assessment of purple loosestrife with the purpose of locating future sites suitable for biocontrol management efforts. The Forest Lake #3 Public Launch would potentially be a suitable location due to population density and ease of access.

### Zebra Mussels

- Overview: Five zebra mussel sampling plates were deployed on Forest Lake this year. Initial observations indicate that both population density and size have reduced from previous years. Zebra mussels were first discovered in Forest Lake in 2015. Previous reports have stated that it is expected densities will continue to rise over the upcoming years, then potentially crash after reaching a peak. Continued long term monitoring may be necessary to determine if we have reached that peak.

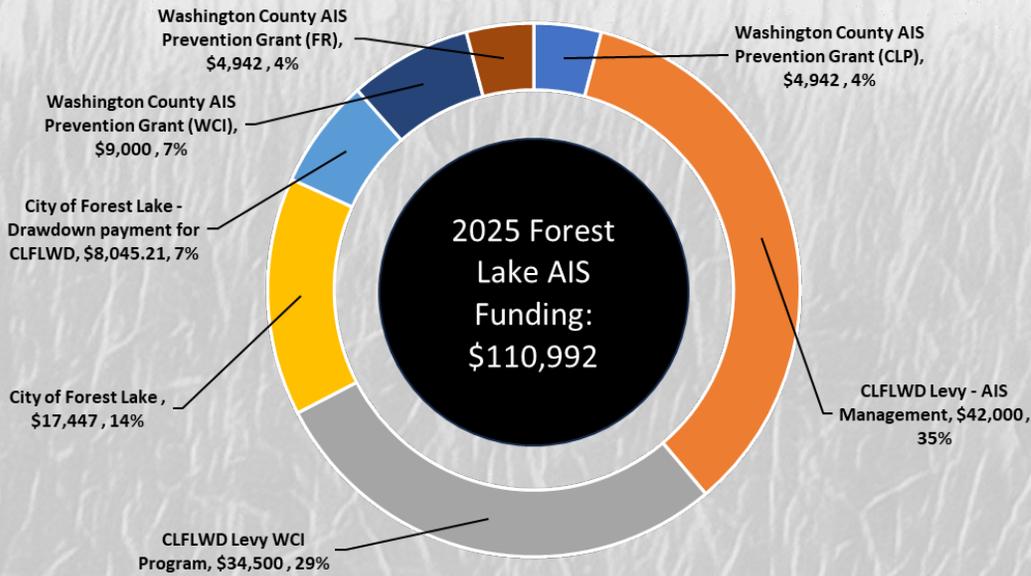
### Watercraft Inspections (brief overview; see full report for more details)

- **Hours:** 2458.75 hours were worked at Forest Lake accesses
- **Surveys:** 4743 inspection survey were performed at Forest Lake accesses
- **Reports:**
  - Chisago County: 2025 AIS Prevention Report (Expected in early 2026)
  - CLFLWD: 2025 Watercraft Inspection Program Report

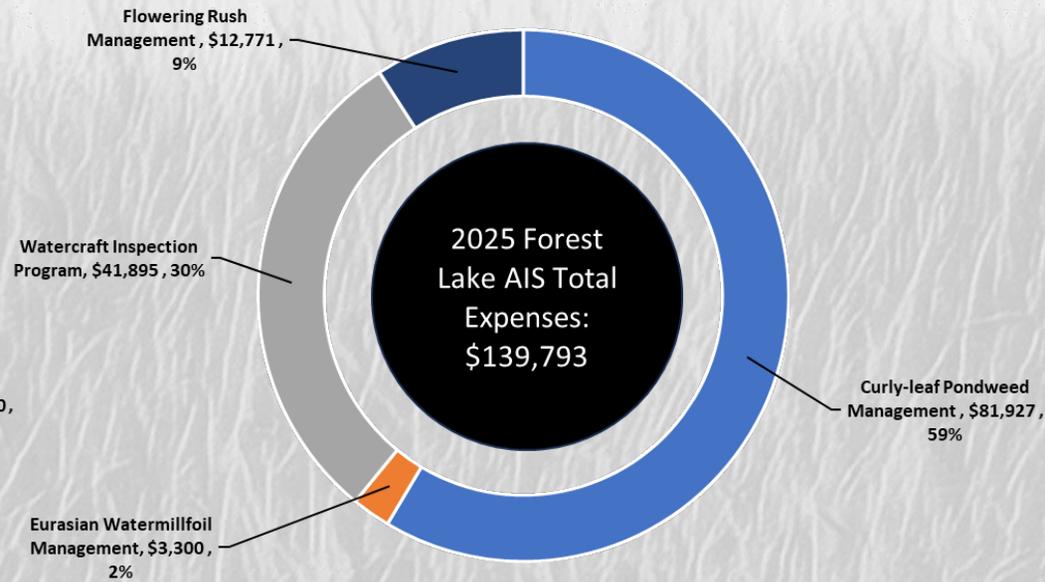


# Forest Lake - 2025 Budget Summary

## CLFLWD's 2025 Forest Lake AIS Funding



## CLFLWD's 2025 Forest Lake AIS Program Expenses



# Tri-Party Agreement Purpose and Partners

Successful aquatic invasive species management requires a community wide effort. CLFLWD received considerable support across the district in it's efforts. This community partnership is codified on Forest Lake between CLFLWD, the City of Forest Lake, and the Forest Lake Lake Association (FLLA) in the Tri-Party agreement. The agreement ensures the financial cost of AIS management is shared by all three parties in a fiscally responsible manner which ensures stability and flexibility through reserve funds and equal contribution. The main points are listed below but is not an exhaustive list.

1. The district will carry out AIS management on Forest Lake according to its Watershed Management Plan
  2. The city will carry out native plant harvesting and other activities to support recreation on Forest Lake
  3. FLLA will assist with AIS management
  4. The city will contribute \$63,750, the district \$63,750, and FLLA \$22,500
  5. A shared agreement of expenditures
  6. A reserve fund will be created if necessary
  7. Each party determines and is responsible for its own activities
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# Tri-Party Agreement 2025 Activities

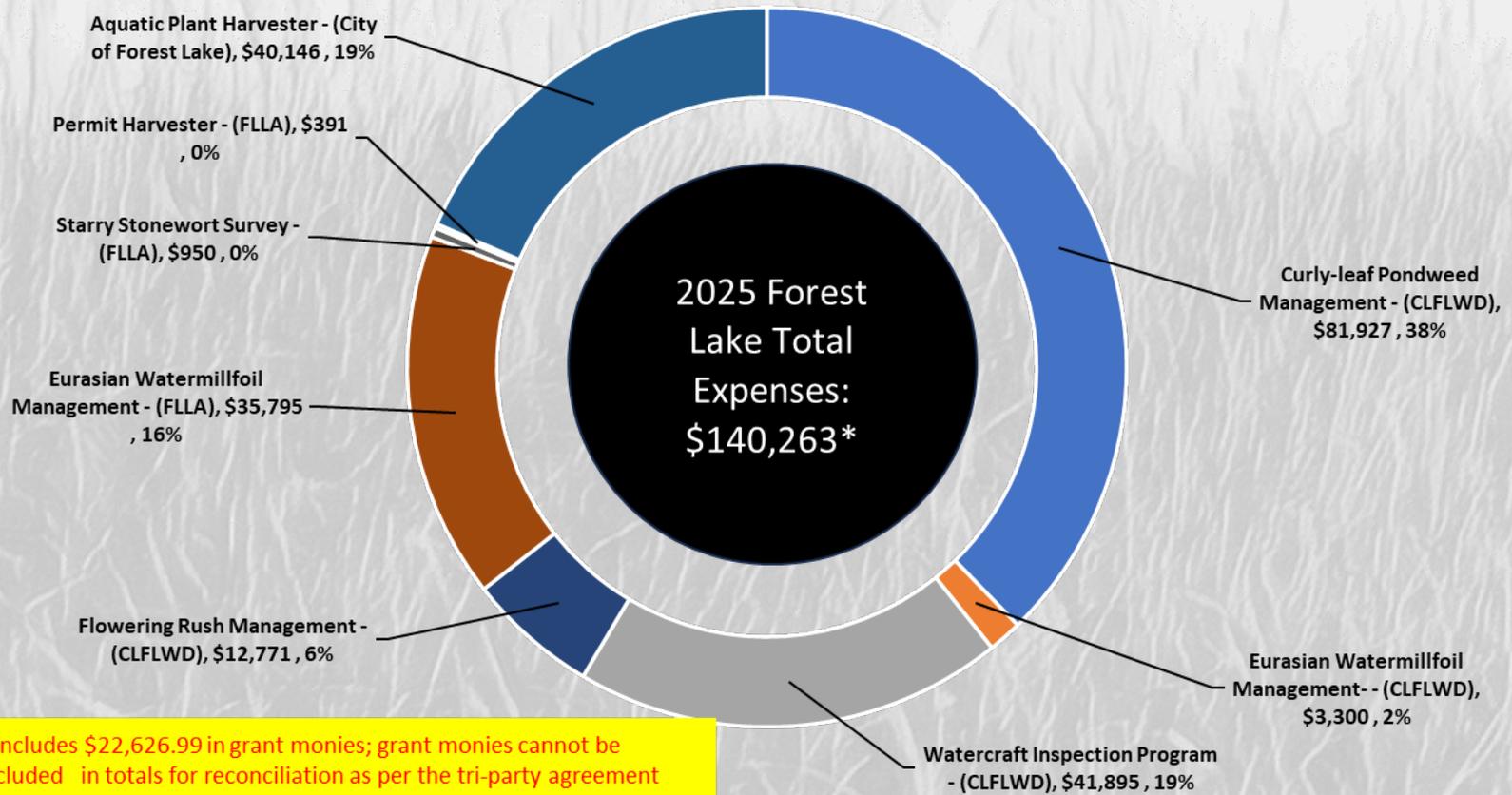
## Forest Lake Expenditures

	Category	2025 expenditures	2025 Grant Monies	Subtotal	Total Cost Share
City of Forest Lake	<b>Weed Harvester</b>	N/A			<b>Total</b>
	Seasonal Operator Wages	\$14,096.50	\$0.00	\$14,096.50	
	FTE Wages	\$4,228.95	\$0.00	\$4,228.95	
	Maintenance Costs	\$16,694.53	\$0.00	\$16,694.53	
	Fuel Costs	\$4,775.61	\$0.00	\$4,775.61	
	Flags	\$350.00	\$0.00	\$350.00	
	EWM Treatment	\$0.00	\$0.00	\$0.00	
				<b>\$40,145.59</b>	<b>\$63,750</b>
					42.50%
Forest Lake Lake Association	EWM treatment	\$35,795.28	\$4,942.33	\$30,852.95	
	Starry Stonewort survey	\$950.00	\$0.00	\$950.00	
	Permit for Harvester	\$391.00	\$0.00	\$391.00	
				<b>\$32,193.95</b>	<b>\$22,500</b>
				15%	
Comfort Lake-Forest Lake Watershed District	Watercraft Inspections	\$36,642.38	\$7,800.00	\$28,842.38	
	FTE Wages	\$9,528.37		\$9,528.37	
	Flowering Rush	\$12,770.85	\$4,942.33	\$7,828.52	
	Curly-leaf Pondweed	\$81,927.24	\$4,942.33	\$76,984.91	
	EWM Surveys + Treatment	\$3,300.00		\$3,300.00	
	Purple Loosestrife			\$0.00	
	Point Intercept Macrophyte Survey			\$0.00	
	Common Carp Population Assessment			\$0.00	
	Trash/Recycling Service	1,639.87		\$1,639.87	
				<b>\$128,124.05</b>	<b>\$63,750</b>
				42.50%	
<b>Total Lake Expenditures</b>	Total before subtracting grants ->	<b>\$223,090.58</b>	Total after subtracting grants	<b>\$200,463.59</b>	<b>Total</b>

# Tri-Party Expenses

## 2025 Forest Lake AIS with Partner Lake Management Expenses

Tri-Party Funding Support Agreement : City of Forest Lake, Forest Lake Lake Association, Comfort Lake Forest Lake Watershed District



# **2025 Financial Result of the Tri-Party Agreement**

The triparty agreement covers the first \$150,000 spent on Forest Lake AIS. Any additional expenses beyond that are the responsibility of the spending party. The 2025 agreement combined with the drawdown resulted in the City of Forest Lake paying the Forest Lake Lake Association \$8,997.16 and the CLFLWD \$25,491.95.

## **Tri-Party Agreement – planning for the future**

For 2026 the triparty financial amounts will remain the same

- Potential increase in 2027 to account for rising expenses.
  - Discussion on creating a 3-year agreement with escalation
  - Partners discuss the reduction of CLP acreage treatment if necessary
  - Weed harvester usage – 2027 decision
-

# Comfort Lake

## 2025 Yearend Summary

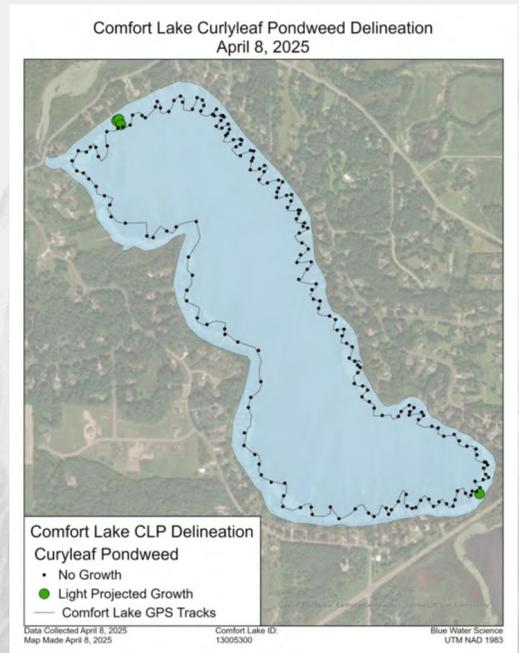
### Curly-leaf Pondweed (CLP)

- **Delineation:** Performed on April 8th, a majority of the sample points detected no CLP with a few light potential growth areas identified.
- **Treatment:** No treatment was recommended or performed
- **Assessment:** Performed by BWS (see BWS summary report)

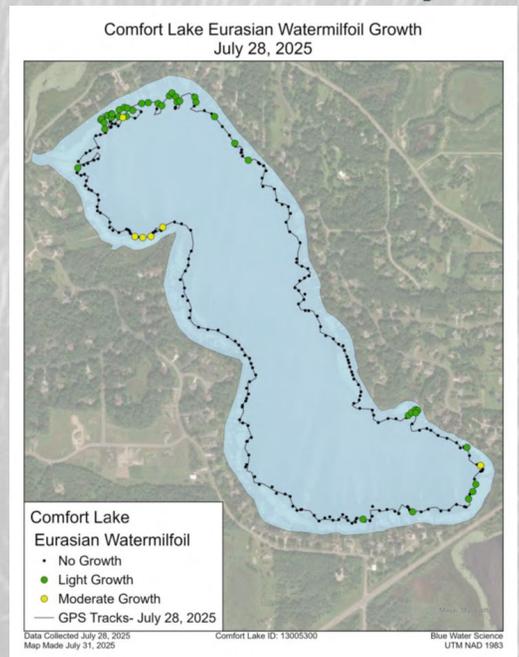
### Eurasian Watermilfoil (EWM)

- **Delineation:** Performed July 28<sup>th</sup> detected several areas of light EWM growth which would not impede water quality or recreational enjoyment .
- **Treatment:** No treatment was recommended or performed
- **Assessment:** Performed by BWS (see BWS summary report)

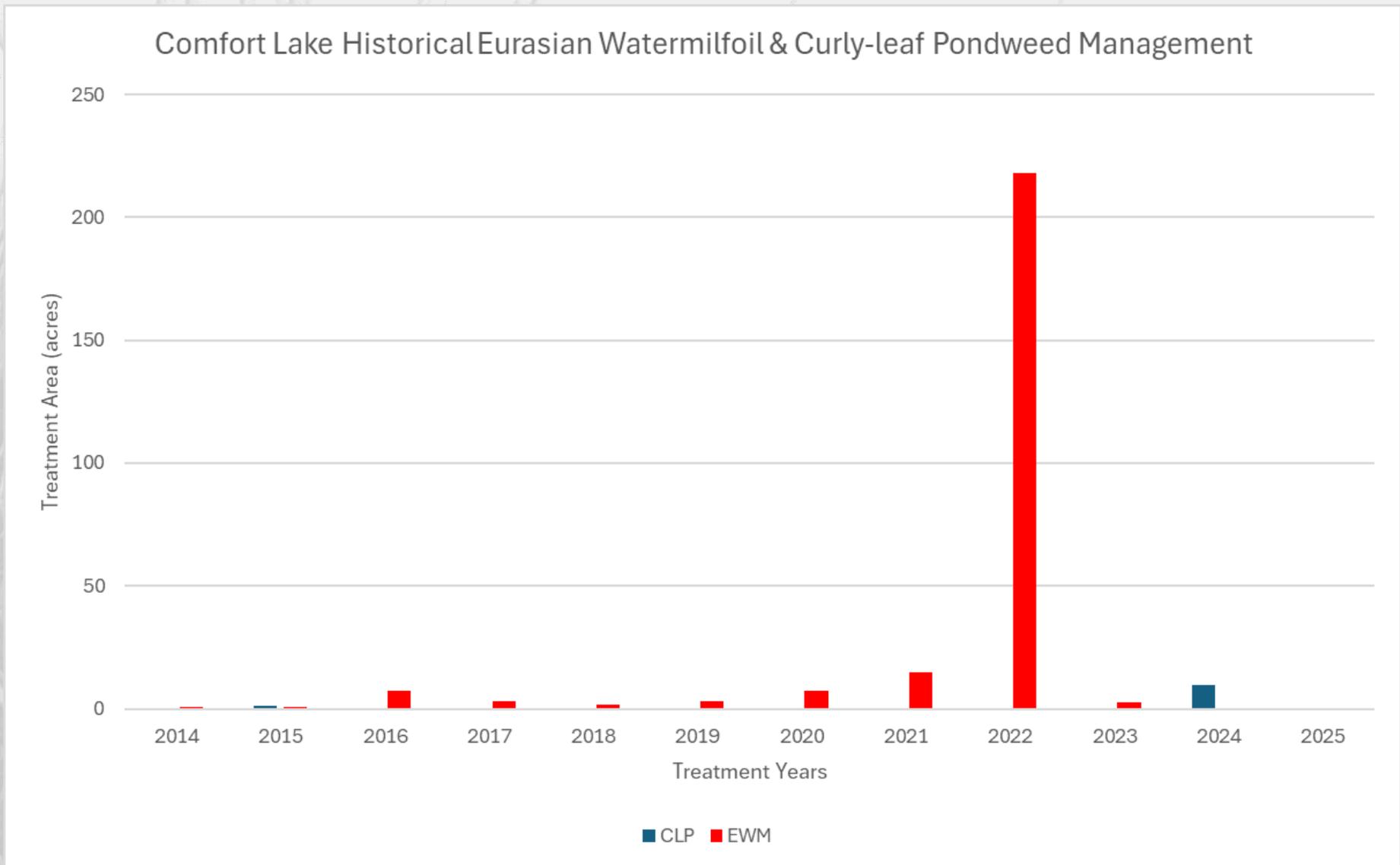
### Curly-leaf Pondweed (CLP)



### Eurasian Watermilfoil (EWM)



# Comfort Lake – Historical AIS Treatment Area



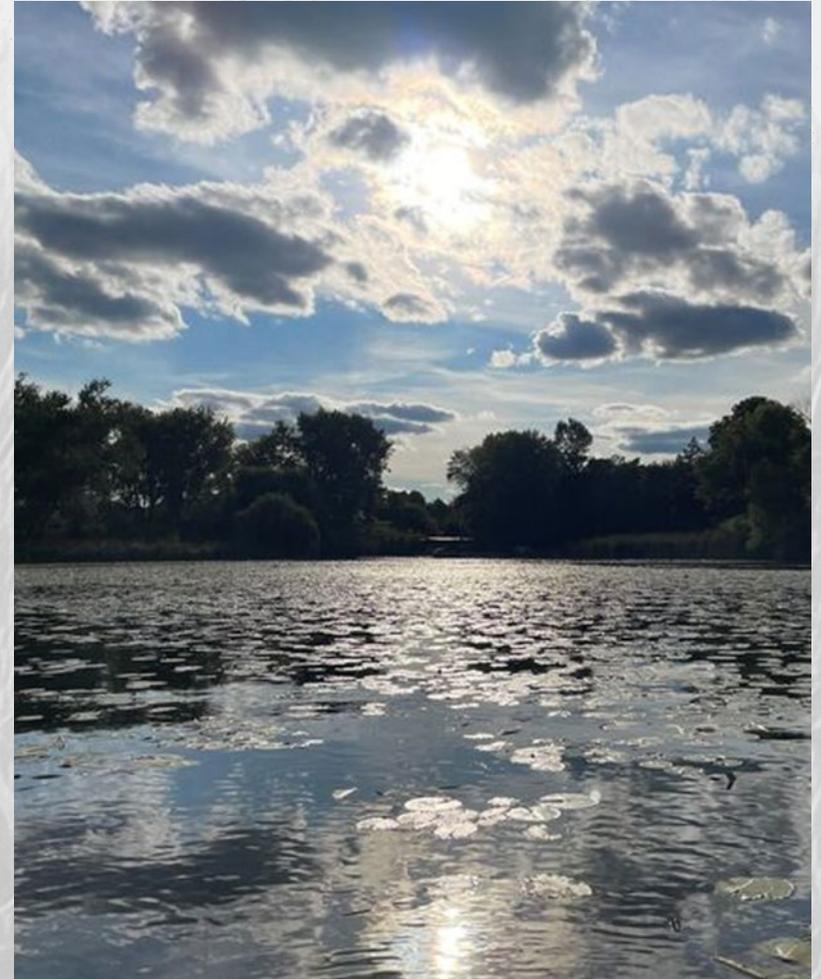
# Comfort Lake – 2025 Continued

## Zebra Mussels

- **Overview:** In 2025, the Comfort Lakes Association participated in a zebra mussel monitoring program being piloted by the University of Minnesota. Instead of hand counting zebra mussels at the end of the season, researchers hope to develop technology to count them from a photograph of the sampler plate.

## Watercraft Inspections brief overview; see 2025 WCI report

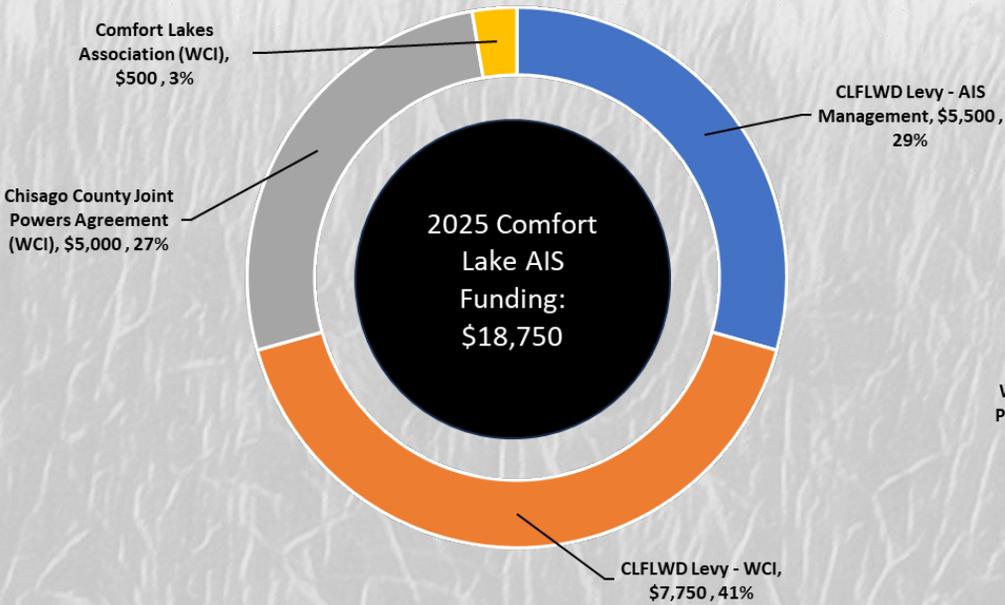
- **Hours:** 562 hours were worked at Comfort Lake
- **Surveys:** 775 inspection surveys were performed at Comfort Lake
- **Reports:**  
Chisago County: 2025 AIS Prevention Report  
(Expected in early 2026) CLFLWD: 2025 Watercraft  
Inspection Program Report



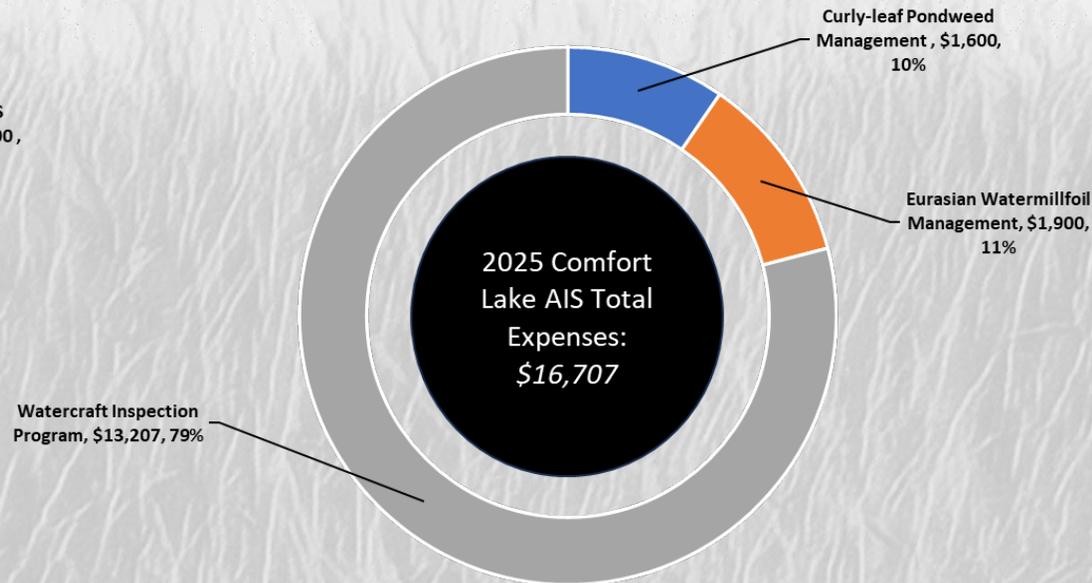
Sunrise river outlet at Comfort Lake

# Comfort Lake - 2025 Budget Summary

## CLFLWD's 2025 Comfort Lake AIS Funding



## CLFLWD's 2025 Comfort Lake AIS Program Expenses



# District Wide - Purple Loosestrife

## Purple Loosestrife

- District staff performed purple loosestrife assessment surveys well out in the field with the purpose of implementing a future loosestrife beetle biocontrol management following DNR guidelines.



Purple loosestrife along Keewahtin Ave

- Three sites with suitable conditions have been identified with large stands for sustaining beetle populations and easy access locations
    - **Forest Lake Public Launch 3**
    - **Keewahtin** (southern bay along Highway 97)
    - **Shallow Pond** (adjacent to Hawk Meadow Park trail system)
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