

## Inspection by the Invasive Species Program

Division of Ecological Resources  
Minnesota Department of Natural Resources

Lake: Lake Margaret

DOW Number: 11-0222

Date of inspection: 4/9/2010

County: Cass

Observer[s]: Darrin Hoverson

Time - On Water: 12:00 pm Off water: 4:30 pm

**Type of inspection:** Review of application for grant to control curly-leaf pondweed (*Potamogetan crispus*)

**Author[s] of report:** Darrin Hoverson – Invasive Species Specialist

**Date of report:** 4/15/2010

**Overall:** It was sunny, the air temperature was 50-55° F, water temperature was 54-48° F, and the wind blew from the E-SE at 5-10 mph. Curly-leaf pondweed was present in depths from 4 to 9 feet. Treatment of four areas totaled 11.9 acres using vegetation transects across the lake on 4/9/2010 (Figure 1).

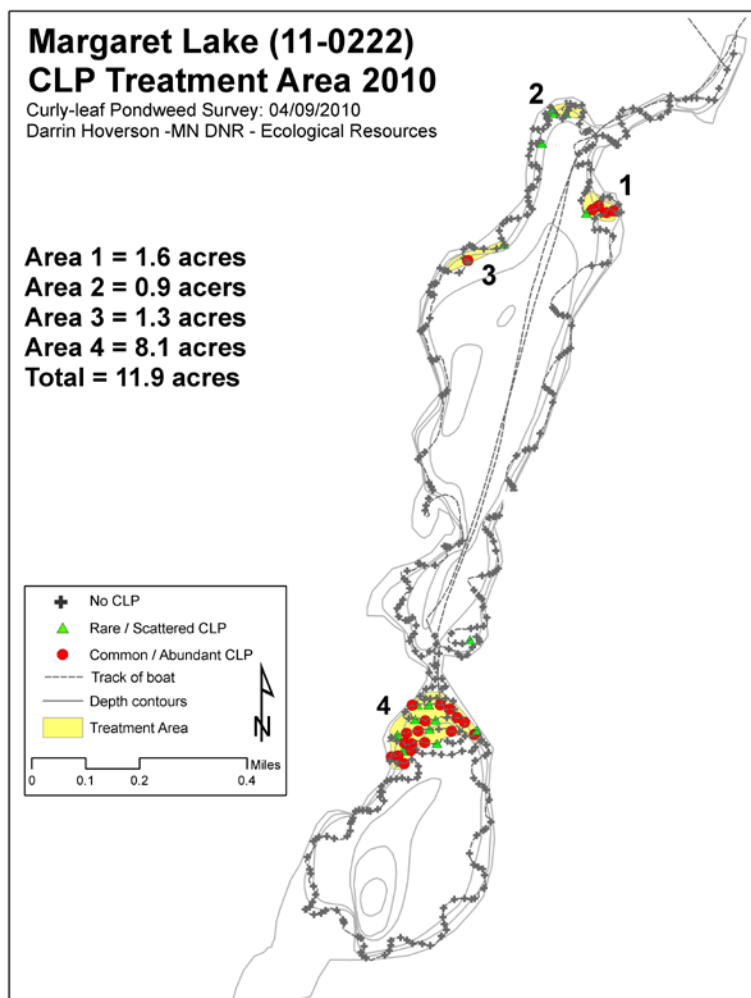


Figure 1. Map of Lake Margaret on which the track of the boat – gray dashed line – and waypoints where observations were made – green triangles are rare or scattered plants and red circles are common or abundant beds.

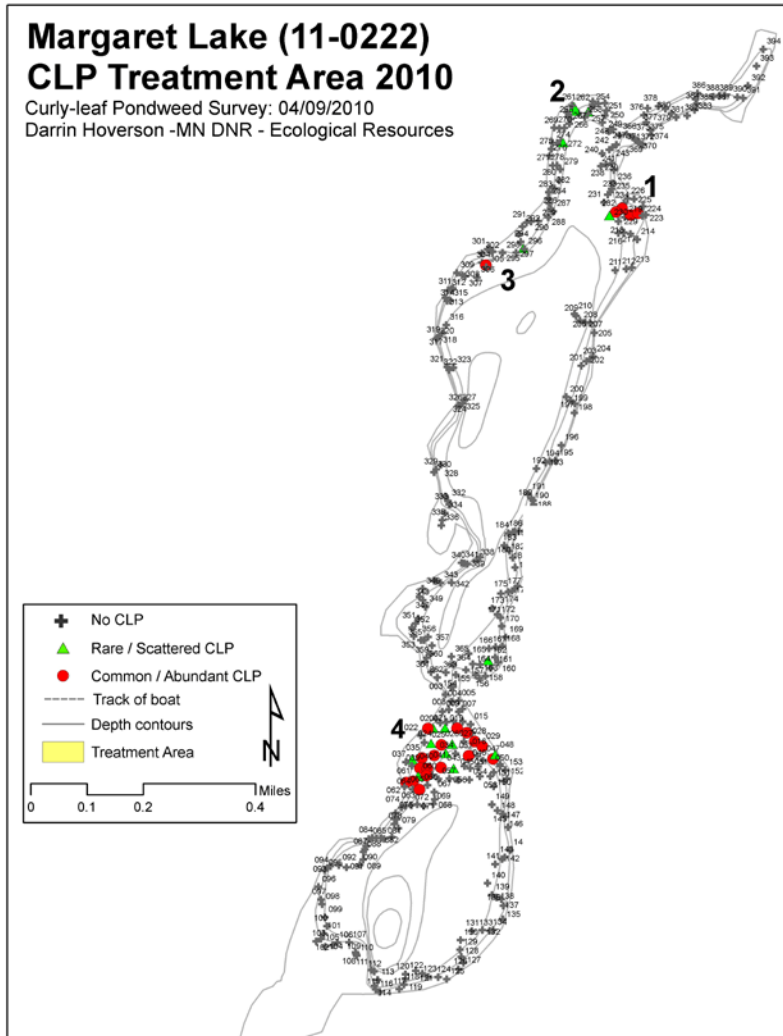


Figure 2. Map of Lake Margaret on which GPS waypoints are identified in the upper right-hand corner of the point.

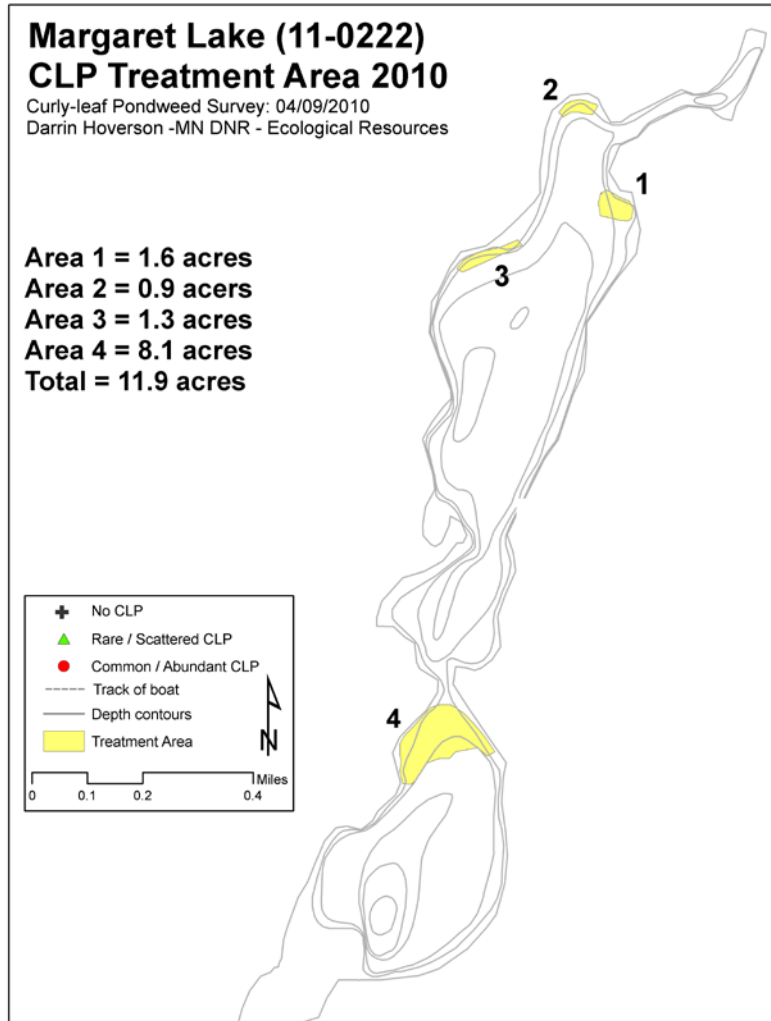


Figure 3. Map of Lake Margaret on which 4 separate treatment areas are identified.

**Equipment** - CLP delineation survey was completed using a Lund boat, map 76CS GPS, and Hummingbird 150 piranha depth finder. A plant rake attached to 50 feet of rope was used to sample vegetation

**General observation** – From 4 feet to 9 feet around the majority of the lake CLP was common or abundant. CLP lengths ranged from 3 to 12 inches. Area 1 and 4 had the largest and most dense beds of CLP.

The area to be treated in 2010 is less than that of 2009 and years before. Only two area, 1 and 4 had substantial CLP present and this may be due to the years of repeated treatments and turion reduction. Only 11.9 or 6.5% of 184 littoral acres are to be treated in 2010.

## Waypoint Observations:

### Area 1: North -East Bay

**Visual observation:** 4-9 feet, either free of vegetation or abundant beds of coontail. CLP was found rarely or scattered in depths of 8 and 9 feet and common or abundant in 4 to 8 feet. This area is the second most abundant bed of CLP on Lake Margaret. Recommend treatment in Area 1.

### Area 2: North Bay, West Shore

**Visual observation:** 4-8 feet, either free of vegetation or abundant beds of coontail. CLP was found either rarely or scattered in depths of 4 to 8 feet. Recommend treatment in Area 2, primarily in 4 to 8 foot range.

### Area 3: West Shore

**Visual observation:** 4-8 feet, either free of vegetation or abundant beds of coontail. CLP was found rarely and once abundantly in depths of 6 to 8 feet. Recommend treatment in Area 3, primarily in 4 to 8 foot range.

### Area 4: Bay south of center channel

**Visual observation:** Abundant and common CLP throughout delineated area. Rare or scattered plants were sampled in the shallow areas around the channel and areas bordering the delineation. This area was the largest and most abundant bed of CLP on Lake Margaret. Recommend treatment of Area 4.

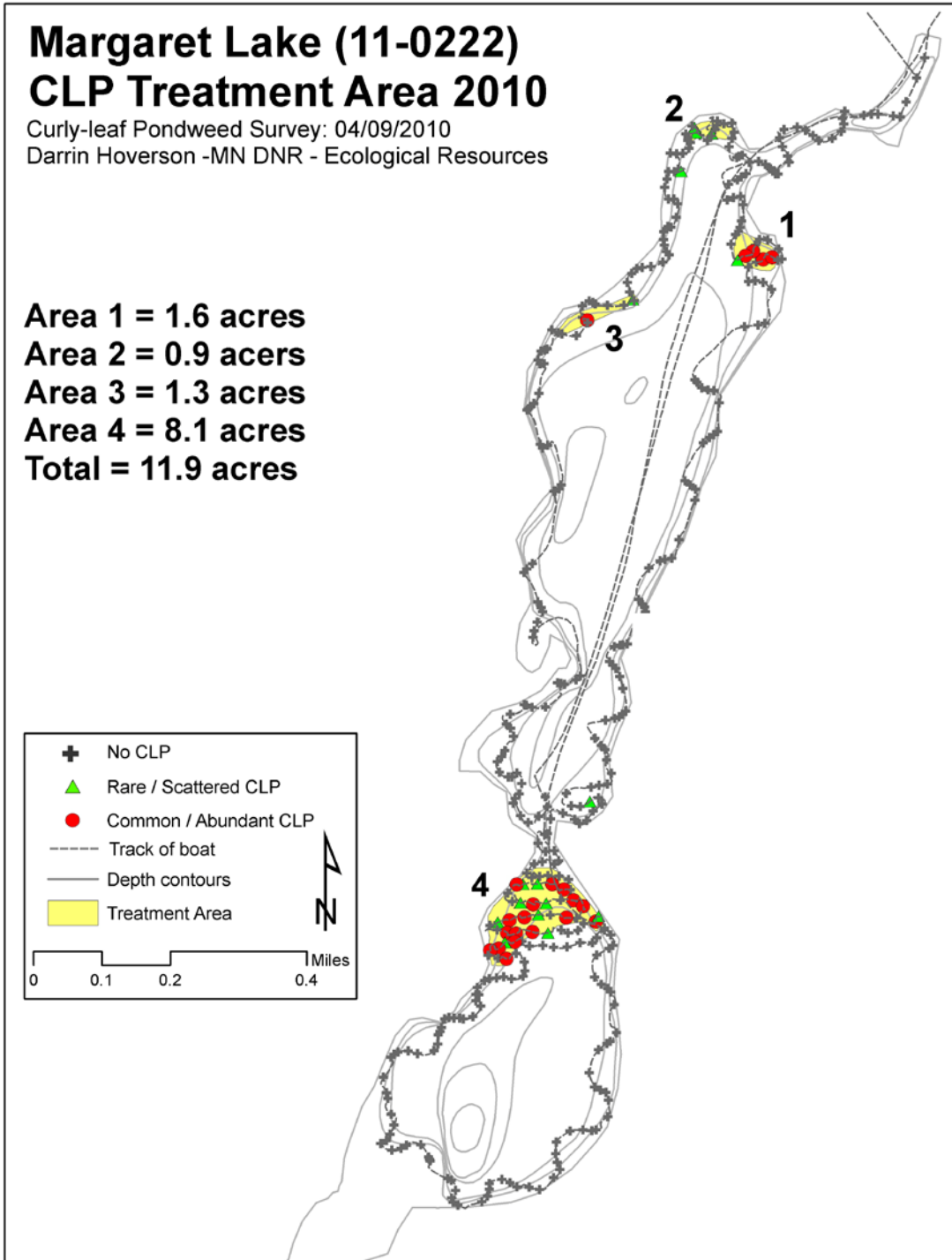
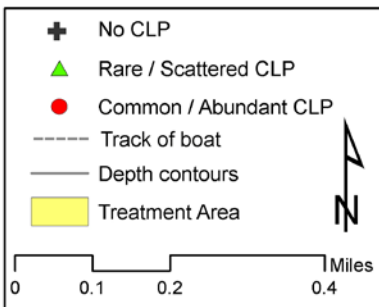
Table 1. Recommendations for Lake Margaret regarding applications for permits to allow treatment and applications for grants to support control of curly-leaf pondweed.

Area	Waypoints	Acres proposed	Observations	Recommend that treatment be allowed?	Recommend reimbursement?
1	See map	1.6	Scattered and abundant CLP	Yes	Yes
2	See map	0.9	Scattered or rare CLP	Yes	Yes
3	See map	1.3	Scattered or rare CLP	Yes	Yes
4	See map	8.1	Abundant bed of CLP	Yes	Yes
Total	See map	11.3		Yes	Yes

# Margaret Lake (11-0222) CLP Treatment Area 2010

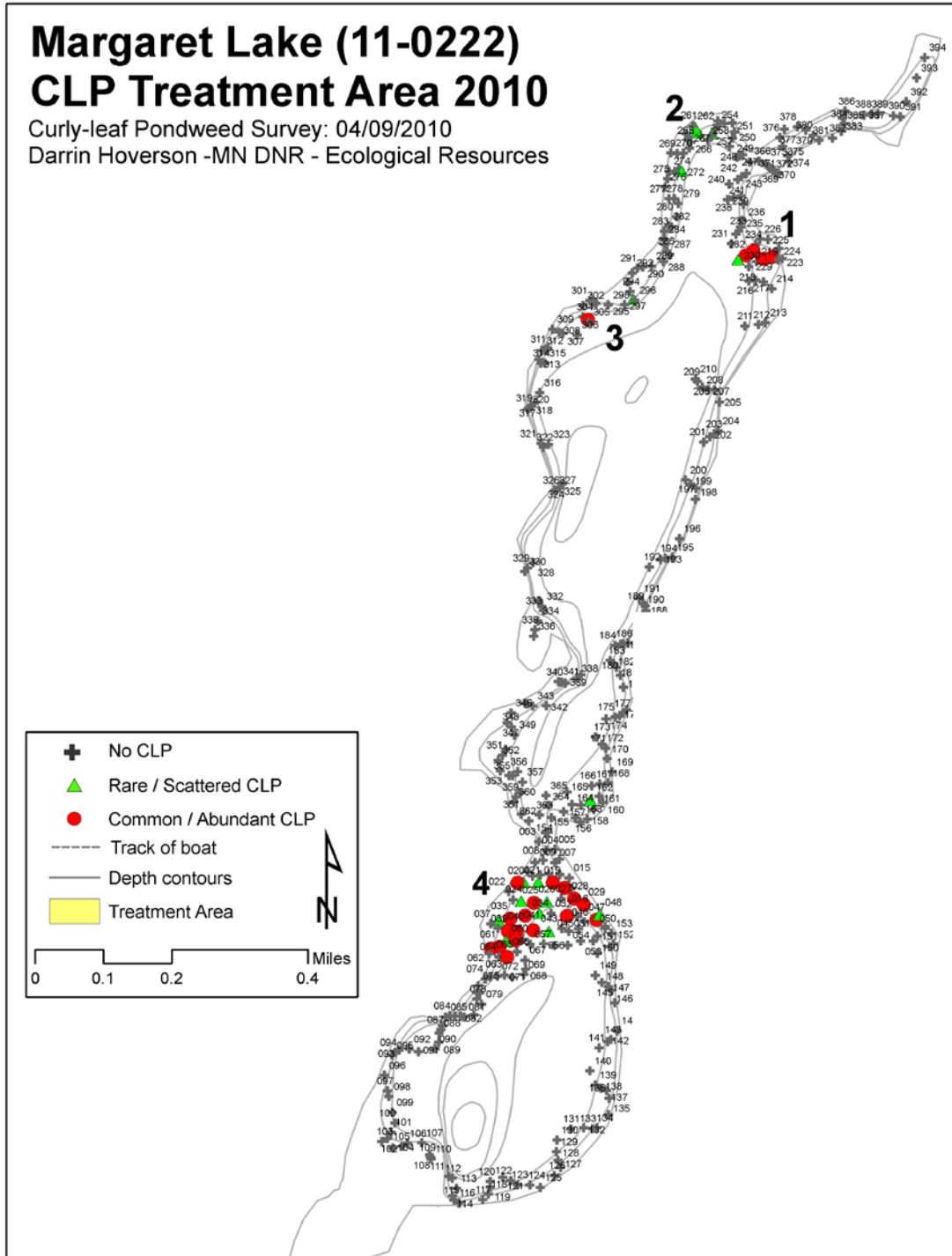
Curly-leaf Pondweed Survey: 04/09/2010  
Darrin Hoverson -MN DNR - Ecological Resources

**Area 1 = 1.6 acres**  
**Area 2 = 0.9 acers**  
**Area 3 = 1.3 acres**  
**Area 4 = 8.1 acres**  
**Total = 11.9 acres**



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