



**Draft**  
**Point-Intercept by the Invasive Species Program**  
 Division of Ecological Resources  
 Minnesota Department of Natural Resources

**Lake:** Circle                      **DOW Number:** 66-0027-00                      **Date of point-intercept:** 24 June 2010  
**County:** Rice    **Observer[s]:** Joe Eisterhold and Lauren Beal  
**Time – on Water June 2:** 1030 hr    **Off water:** 1330 hr

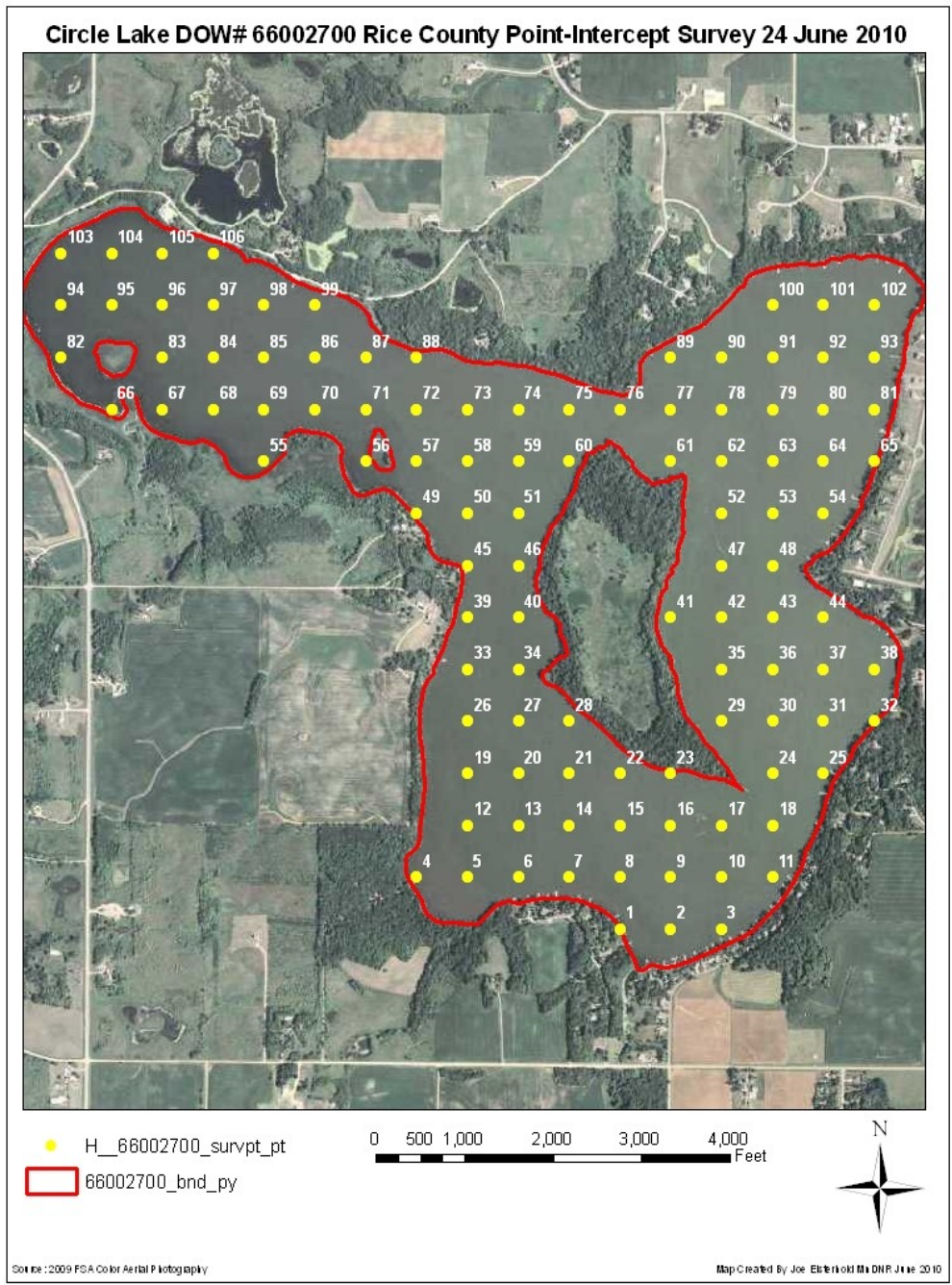
**Type of inspection:** Point-intercept survey for curly-leaf pondweed (*Potamogeton crispus*).

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**Author[s]:** Lauren Beal and Joe Eisterhold    **Date of report:** 29 June 2010

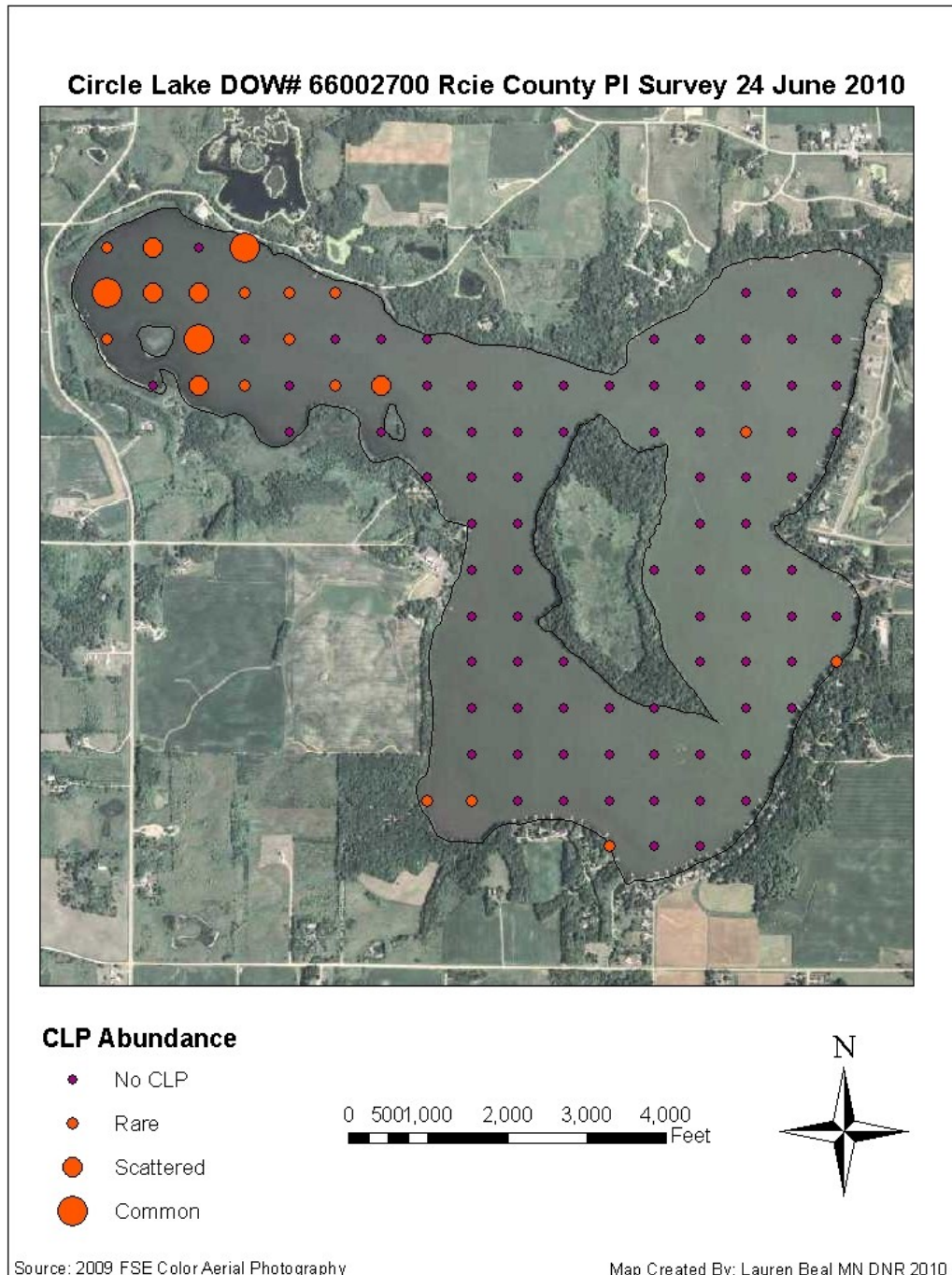
**Overall:** Circle Lake is located in Rice County near Lonsdale. It has 837.56 total acres with 624 littoral acres. The water's temperature was 74-79°F between 9:30 am and 2:30 pm on 24 June 2010. The Secci Disk reading for water clarity was 2.5 feet at waypoint 52. The maximum depth of this lake is 14 feet and the maximum depth sampled with plant growth was 6 feet. Plant growth occurs at a mean depth of 3.7 feet. Our total number of points was 106, but points 55, 56, and 66 were inaccessible, making the number of sampled points 103. Frequency of curly-leaf pondweed from sampled sites was 20%. Native plants found at sampling sites include *Chara spp.*, coontail, *Elodea*, sago pondweed, and filamentous algae. Emergent species include reed canary grass, cattails, as well as a patch of fragmites found south of the island. Near sample sites by the shore coontail, sago pondweed, and lesser duckweed were observed, occurring sporadically. This lake has one concrete DNR access on the north side of the lake.

<b>Plant Species</b>	<b>Type</b>	<b>Percent Frequency of Occurrence</b>
Curly-leaf pondweed ( <i>Potamogeton crispus</i> )	Submersed	<b>20%</b>
Coontail ( <i>Ceratophyllum demersum</i> )	Submersed	<b>4%</b>
Elodea ( <i>Elodea canadensis</i> )	Submersed	<b>3%</b>
Filamentous algae ( <i>Aphanizomen</i> spp. and <i>Nostos</i> spp.)	Submersed	<b>1%</b>
Sago Pondweed ( <i>Potamogeton pectinatus</i> )	Submersed	<b>2%</b>
Chara spp.	Submersed	<b>1%</b>
Frequency of sites with submersed native species		<b>7%</b>
Frequency of sites with submersed native and non-native species		<b>20%</b>
Average number of submersed native taxa per sample site		<b>.097%</b>
Average number of submersed native and non-native taxa per sample site		<b>.150%</b>



**Figure 1.** Map of GPS waypoints throughout Circle Lake in Rice County, MN. Points 55, 56, and 66 were removed from sampling due to inaccessibility.





**Figure 2.** Map of the abundance of curly-leaf pondweed on Circle Lake on 24 June 2010.

Source: FSA 2009 Color Aerial Photo and Map Created By: Lauren Beal MnDNR 2010.

Circle Lake Point Intercept Survey, 2010



**Photo 1:** Circle Lake, 24 June 2010.