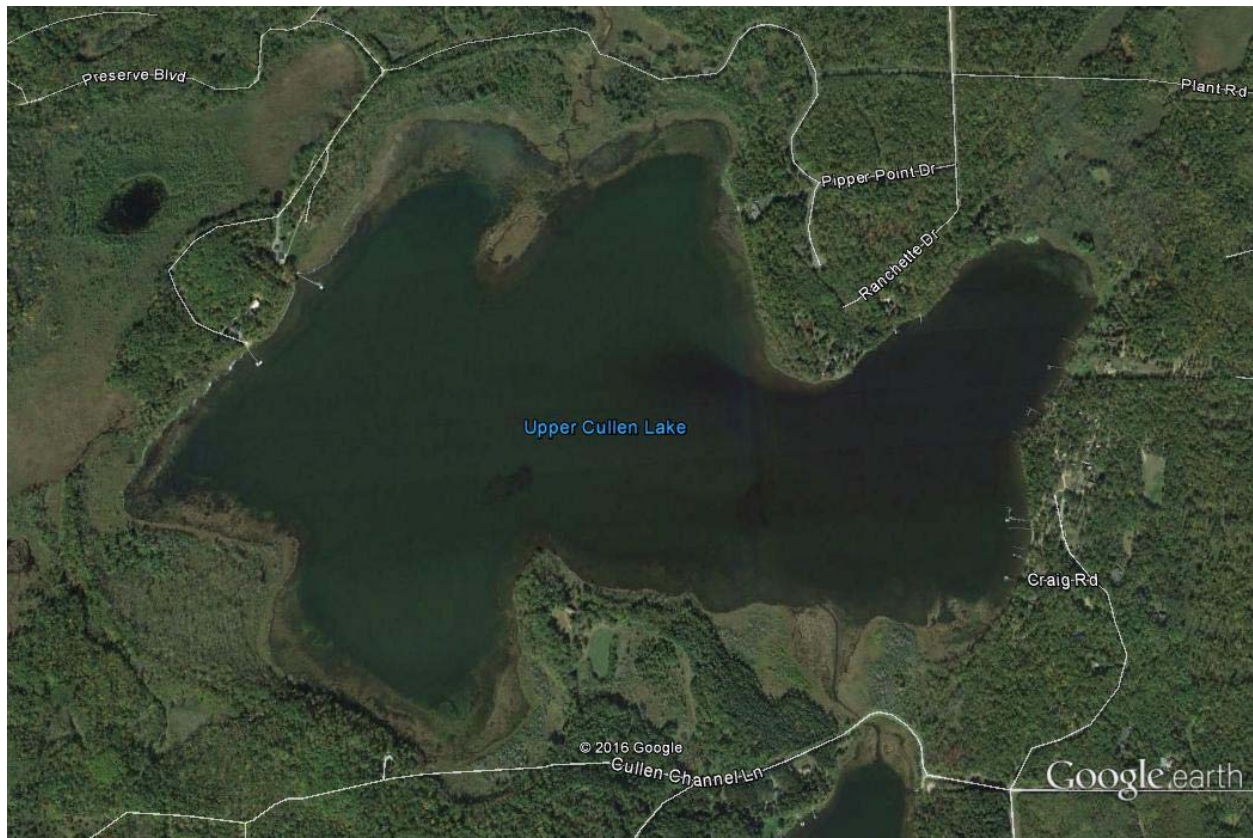


2016 CURLY LEAF PONDWEED ASSESSMENT  
Upper Cullen Lake, Crow Wing County, Minnesota

**Mid-Season Assessment**



Submitted by:



Submitted to:  
Cullen Lakes Association

July 5, 2016

**Survey Information:**

Clarke performed a Curly Leaf Pondweed Survey on Upper Cullen Lake on June 9<sup>th</sup>. The purpose of this survey was to assess the treatment areas and the rest of the lake to see densities of Curly Leaf Pondweed when it was at the peak of its life cycle. This also will show areas to focus our surveying on for 2017 and use as potential treatment areas for 2017.

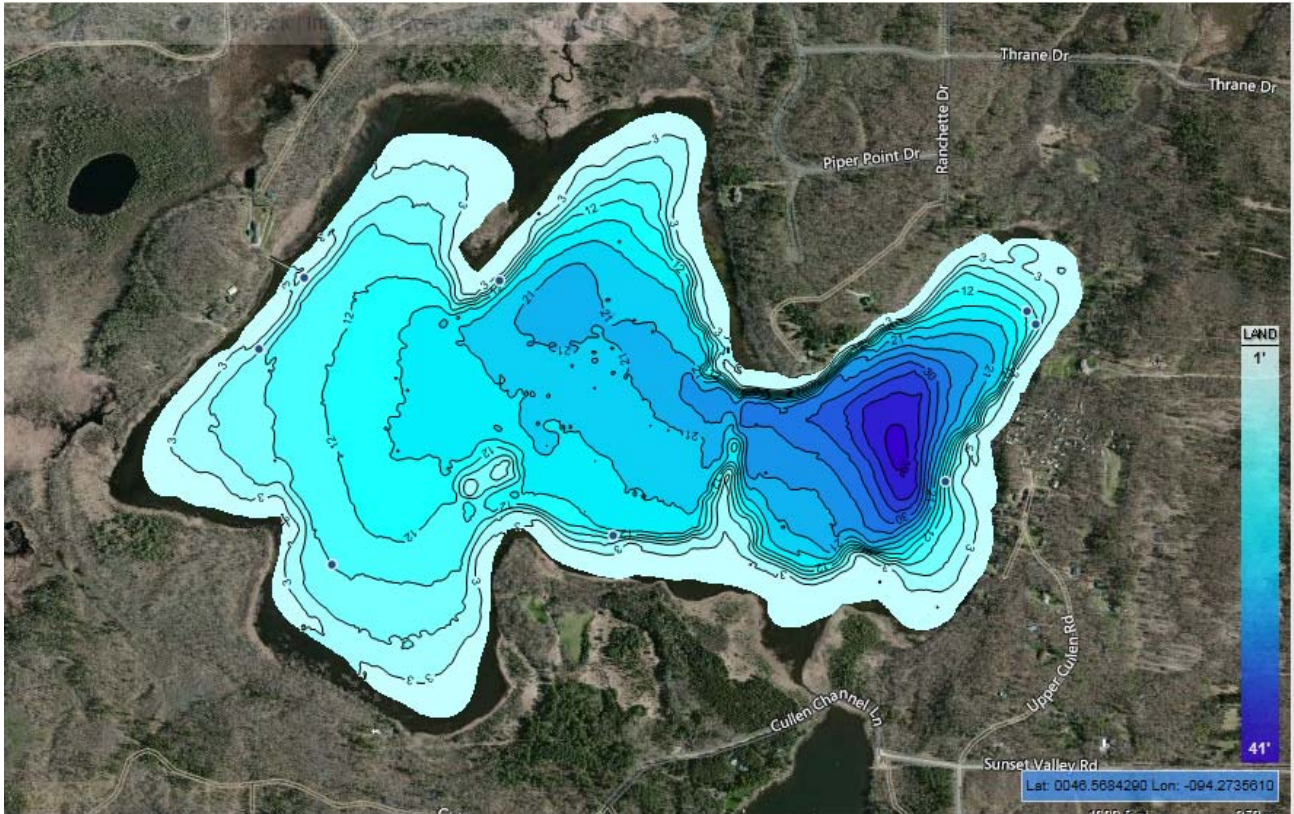
During the survey Clarke found 8 points with Curly Leaf Pondweed. These points were all very similar in that only a few plants were found at each. Below is a map with the 2016 treatment areas in white and the CLP points found in red. The CLP overall for the lake was extremely low compared to other surveys done by Clarke. Even the CLP that was found was at very low densities. The reasoning behind this is unknown. The CLP found inside the treatment areas was almost 100% dead other than one or two plants.

As far as new areas of interest for future treatments, none were found.

**June 9<sup>th</sup> Survey**



**June 9<sup>th</sup> Survey w/ contours**



**June 9<sup>th</sup> Survey Pictures**

**Dead CLP found in front of resort**



**CLP found on west end of the lake outside treatment area**



**Dead CLP found in big treatment area on SW part of the lake**



**CLP found on point on west end of the lake**



**Dead CLP found north of resort in treatment area**

