The Paradox Lake Association (***PLA)*** has identified 3 aquatic invasives: Eurasian water milfoil (EWM) in 2008, Curly-leaf pondweed (CPW) in 2009 and Variable Leaf Milfoil (VLM) in 2013. The PLA works with AquaLogic, a company specializing in milfoil harvesting with APA approved methods. This is the fourth consecutive year that the PLA has worked with AquaLogic and they performed the majority of the Eurasian Milfoil harvesting during the 2020 season. One of the PLA’s long-range goals this past year was to increase the number of volunteers and provide a robust training program for the volunteers. Our volunteers work both independently and also provide surface support and marking of invasive plants for the AquaLogic divers. Our training program had three components: to increase awareness of aquatic invasives and how they spread, to teach more people how to identify and mark plants and to train volunteers on the proper technique for removing and disposing of plants.

AquaLogic continues to concentrate their efforts in the three most affected areas in the lake as outlined below. Our trained divers (volunteers) supplemented AquaLogic with additional harvesting in the less affected areas of the lake where scouts identified small patches and/or individual plants. They also did follow-up surveillance in the areas where AquaLogic did their harvesting.

AquaLogic began their work on June 1, 2020 with a lake survey accompanied by one of our volunteer divers. They began their first harvesting work on June 8, 2020 and finished their work on October 8, 2020. They were hired to perform 150 hours of harvesting blocks of days as indicated in the attached reports. During each visit they were supported by a contingent of volunteers from the PLA who collected fragments and assisted in marking plants.

There are still three primary sites that continue to yield the most EWM plants (see Upper Lake Invasive Zone Map.pdf and Lower Lake Invasive Zone Map.pdf).

The eastern end of the lake, including zones 2 and 23, continues to be the largest area of infestation and over the past several years EWM has been found in deeper water (up to15 ft.). We continue to find a large number of plants as well as fragments in the lily pads and in the inlet. This area is our biggest concern as it seems to be very conducive to the growth of EWM and we were unable to clear all of the plants in these zones in the 2020 season. The other two areas are: the periphery of Grass Island (zone 26), and the narrows (zones 11 – 15), just west of the Peaked Hill Pond trailhead on both shores. This year EWM was identified in two additional zones in the Lower Lake (the western basin): the outlet and south shore near the Southwoods Camp. We have a group of volunteers that is conducting shoreline surveys of the Lower Lake as well as monitoring these new areas regularly.

Please refer to the *EWM 2017 – 2020 comparison.xlsx* located in the Appendix section of this report for a general description of the control activities at each site*.* This can be cross referenced with the map, which provides a pictorial illustration of the zones used for logging and reporting purposes. The report provides 4 years of data for comparison purposes. AquaLogic reports plants by the gallon whereas our volunteers report by the individual plant and can vary greatly in size. While this information is certainly helpful, it is only one piece of the puzzle and the PLA uses this in addition to more subjective and on-going observation and surveillance. Additionally, the AquaLogic reports provide GPS locations, but this is typically a starting point where they begin their harvesting activities. However, in reality they often cover multiple zones in a given day. For the 3 large sites it is somewhat helpful to look at the summarized data for these areas. We are working with AquaLogic to develop strategies to capture volume by zone more accurately.

The PLA volunteers continue to hand harvest of the CPW, which has been present in the lake for a number of years. There are a few identified areas, with the most concentrated area in zone 20 of the map. PLA trained volunteers have addressed this area with an annual group harvest early in the season, prior to the plant laying down.

This past season the PLA utilized (2) certified divers to supplement Aqualogic’s efforts. There were also trained PLA volunteers that provided support by snorkeling and hand harvesting in shallow water where divers were not necessary and cannot work effectively.

Low-water levels throughout the season made it much easier for our scouting efforts this year. The estimated overall EWM harvesting was probably comparable to the previous year, but difficult to confirm because many of the plants vary greatly in size and many of the plants toward the end of the season were smaller. The total number of PLA harvested plants was 3,528 EWM and 50 CPW. AquaLogic harvested 910 gallons of EWM.

The current PLA method of disposal of the plant is performed in two manners, either by bagging and transporting to a landfill, or burying in a wooded area at least 150 yards from the lake and any creeks or streams. AquaLogic has its own means of disposal previously approved by the APA.

The PLA will continue working closely with Aqualogic this upcoming year. The PLA volunteer divers will perform follow-up dives to access the effectiveness of the AquaLogic methods. This will help provide additional direction, monitor progress and provide additional information for annual comparison reporting. Our scouts will continue marking EM prior to AquaLogic dives, which contributes to a more effective harvest. We will promote additional volunteer assistance with AquaLogic’s efforts and continue performing additional volunteer harvesting throughout the lake.

 Submitted by: Nancy Girling

 PLA Invasive Chair