**2017 Eurasian Watermilfoil Harvest Report**

**Anvil Lake Association**

Submitted to:

Anvil Lakes Association and Wisconsin Department of Natural Resources

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November 5, 2017

**Introduction:**

The Anvil Lake Association invested in the components to build a Diver Assisted Suction Harvesting (DASH) unit for use on Anvil Lake in 2016. This summer was the first summer the DASH was available for the entire summer. The DASH unit was used to manage Eurasian watermilfoil (EWM) in the North Bay of the lake and other approved areas. A permit was granted to the Anvil Lake Association on June 2017 by the Wisconsin Department of Natural Resources to allow mechanical harvesting on 12 acres in the north bay of the lake and other selected areas. The DASH unit remained on Anvil Lake for the harvest season.

**Dive Methods:**

The divers have had several years of experience hand-harvesting EWM from Anvil Lake. Three main divers utilized the unit during the 2017 harvest season. During harvest, one or two people were present on the DASH boat deck to handle the boat duties and bagging system. The addition of the DASH unit has improved the efficiency of EWM removal from the North Bay. To begin the work with the DASH unit a general overall plan was developed to work along the entrance of the bay in a general depth of 7-10 feet and other areas where clusters were present. The approach allowed the harvest team to work one area from a fixed beginning point and systematically move from that location. Additional sites, outside this depth, were determined based upon identification of emergent plants. In general, the boat was anchored in one location and the diver was able to harvest within the 50-foot radius of the boat during one harvest session.

The DASH unit was most effective in areas when the EWM was concentrated. In these locations the divers were able to hover above the plants or descend to the lakebed to remove the EWM plant and root. The mass was then feed through the suction hose and into the bagging system located on the DASH pontoon boat. The plants were either fed into the suction hose by the root ball or top of the plant. The plant moves through the suction hose and is “caught” in bags. The bagging system used 40-pound mesh bags, typically sold for storage of onions or potatoes. The boat is designed to allow for the discharge hose to be pivoted between two mesh bags. When one bags is filled the discharge hose is pivoted to the second bag. While the second bag is being filled the full bag is tied, remove from the stand, and moved to a storage section of the pontoon. An empty bag is place in the collection station. This process continues throughout harvest. During the harvest a sample bags is used to determine the quality of the harvest. This sample is weighed, and separated into EWM and non-EWM material. At the end of the harvest day, the bags are removed from the DASH pontoon and loaded on a trailer. The collected materials are taken to a local farmer who is testing the application of EWM as a source of fertilizer.

**Harvest Summary:**

A total of 129 hours were clocked on the water utilizing the DASH unit. During this time the divers removed approximately 23,740 pounds of EWM. The harvest sample indicated the overall season percent harvest of EWM to be near 95%%. Two harvest data logs are attached to the report.







