

**LAKE MINNETONKA CONSERVATION DISTRICT (LMCD)
2012 Eurasian Watermilfoil (EWM) Final Harvesting Report**

A. Harvesting season data and conditions summary:

1. Harvesting Season- The 2012 season consisted of approximately nine weeks starting on Tuesday, June 12th, and ending on Thursday, August 16th. There was one day cancelled due to weather (June 14th). The length of the season, factoring in for cancelled days, was 35 working days. This was more than the 21-day season in 2011 (due to the state shutdown) and the 32-day season in 2010. The crew operated two or three LMCD harvesters and transport barge four days a week, 10 hours a day.
2. Water Level- Lake levels during the course of the 2012 season were slightly lower when compared to 2011. The lake level on the first day of the 2012 season was 929.14', compared to 929.76' in 2011. The highest lake level during the 2012 season was 929.38' on June 20th, compared to a highest lake level of 929.81' on June 22nd during the 2011 season. The lowest lake level during the 2012 season was 928.68' on August 15th, compared to a lowest lake level of 928.98' on August 16th. The largest contrast was the early spring lake levels. In 2012, the lowest lake level was 927.86 on April 13th compared to 930.26 on the same date in 2011. The LMCD Board declared a low water emergency in the early spring of 2012 and a high water emergency in the early spring of 2011. It is estimated that the early ice out and spring low water situation contributed to the early heavy EWM growth in 2012. The high lake levels and a wet /cool spring negatively impacted the amount of EWM growth for the 2011 season.
3. Acres Harvested- Total acreage harvested in 2012, including second harvest was 412. This compares to 268 acres harvested in 2011 and 384 acres harvested in 2010. Acres harvested during a season have been calculated since 2003 utilizing Global Positioning System and Geographic Information System software. In 2012, there were three bays involved in a 5-year pilot coordinated herbicide treatment project which included Phelps, Carmans and Grays Bays. There were two additional stand alone whole bay coordinated herbicide treatment projects on Gideons Bay and St. Albans Bay. Mechanical harvesting was not conducted in these areas due to the herbicide treatments. (see attached map for further details).
4. Harvester and Truck Loads- The total number of harvester loads in 2012 was 262.25, which generated 181 truck loads or 5.17 per day (see attached spreadsheet for further details). This compares to a total number of harvester loads of 145.50 in 2011, which generated 74 truck loads or 3.52 per day. In 2012, the daily average of truck loads increased by approximately 47%. This can be attributed to significantly higher milfoil growth in 2012 compared to 2011.

B. Operating Highlights

Harvesting priorities were based upon impediment to boat navigation on the lake, with higher priority given to areas of the lake where EWM has matted. Although there were some areas of the lake with significant EWM growth that was not aesthetically pleasing, we generally did not harvest them unless they were impeding boat navigation. There was a high emphasis in recovering EWM fragments. This was done through utilizing one of the harvesters as a skimmer at times. Another technique that was used was emphasizing tandem cutting and returning to areas the following day and skimming the areas with the harvesters.

The LMCD has assembled a rotating harvesting schedule for Lake Minnetonka (see attached schedule for further details). In 2012, the Lower Lake South Option was implemented. The first harvest around the lake was completed on July 16th. The program started again at the beginning of the Lower Lake South Option on July 17th. This included second harvest in some areas and first harvest in areas not previously cut due to spawning restrictions or previously did not warrant harvesting.

Similar to past seasons, a combination of clear-cutting and limited channel-cutting was utilized to address harvesting priorities. This year there was a high emphasis on tandem cutting when possible. All areas that dictated the need for harvesting were cut at least once, with high growth areas harvested twice as time permitted.

Public response to the harvesting was encouraging, with a limited number of telephone calls from the public. Harvested EWM was mainly composted at two Three Rivers Park District (TRPD) sites. LMCD staff has worked closely with TRPD staff to utilize Gale Woods Farm and Noerenberg Gardens as compost sites because of the close proximity to Lake Minnetonka. 2011 was the first year using Noerenberg Gardens which has improved trucking efficiency. This was a change from past years when the University of Minnesota Landscape Arboretum was used as the primary compost site.

C. Personnel

Judd Harper served his twelfth year as Project Manager in 2012. Mike Heiland returned in 2012 for his third year as the Site Supervisor with the program. An additional five employees were hired for the 2012 season, which included two returning and three new seasonal employees.

D. Equipment Operation and Maintenance

In 2012, there was a change in the equipment maintenance aspect of the program. Mike Heiland, the Site Supervisor performed the majority of the pre-season maintenance of the harvesting equipment and minor repairs throughout the season. Post season maintenance of the harvesting equipment will also be performed by Heiland. The program used Kirvada Fire Inc. to do an overall assessment of the equipment and perform the diesel engine maintenance and hydraulic repairs at an hourly rate. In previous years, the LMCD entered into a flat rate contract with Curfman Trucking and Repair, Inc. for maintenance and

repair of the equipment. These changes have improved maintenance consistency, documentation, efficiency and are anticipated to be an area of cost savings.

E. Status of EWM Harvesting Equipment

In the beginning of the 2012 season, the LMCD harvesting equipment consisted of two paddlewheel harvesters and a transport barge. At that time a third harvester was ordered to replace the harvester that capsized in 2011 and was deemed a total loss. During the offseason, the LMCD worked with the League of Minnesota Cities Insurance Trust and went through a competitive bid process to purchase a new harvester for 2012. A harvester was ordered from Aquarius Systems with a delivery date of July 16, 2012. The new harvester was delivered on July 24th and was utilized the remainder of the season. One of the older harvesters was taken out of service on July 31st for the remainder of the season due to a failure one of the main paddle wheel motors. This part was backordered and was not available until after the end of the season.

F. 2012 EWM Harvesting Program Budget Analysis

The overall budget for the 2012 EWM Harvesting Program was \$93,633. Estimated expenses incurred through the end of September are approximately \$77,280. There will be other expenses incurred for post season work in which invoices have not been received and paid. Funding for this program comes from a combination of levies from the 14 member cities and a grant of \$35,000 from the MN DNR.