LAKE MINNETONKA CONSERVATION DISTRICT (LMCD)
2011 Eurasian Watermilfoil (EWM) Final Harvesting Report

A. Harvesting season data and conditions summary:

1. Harvesting Season- The 2011 season consisted of approximately five weeks starting on Monday, June 27th, and ending on Thursday, August 18th. The length of the season, factoring in for cancelled days, was 21 work days. This was significantly less than the 32-day season in 2010. This was due to three extraordinary factors:
    a) The program was scheduled to start the week of June 13th -16th. However, it was delayed until June 27th due to low early season EWM growth.
    b) The annual Aquatic Plant Management permit the LMCD receives from the Minnesota Department of Natural Resources was suspended on July 1st due to the State shutdown. During this period, the LMCD had one week off planned due to the July 4th holiday. However, the LMCD had to suspend the EWM Harvesting Program the weeks of July 11th and 18th.
    c) On July 26th, one of the three harvesters capsized. The following work day was cancelled for the contract mechanic to do a safety analysis of the remaining two harvesters.

2. Water Level- Lake levels during the course of the 2011 season were slightly higher than the conditions in 2010. The highest lake level during the 2011 season was 929.76' on June 27th, compared to a highest lake level of 929.36' on June 18th during the 2010 season. The highest lake level in the early spring of 2011 was 930.31' on April 30th, compared to 929.43' on May 14th 2010. In 2011, early spring lake levels were extremely high compared to recent years. 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 2011, including second harvest was 268. This compares to 384 acres harvested in 2010 and 350 acres harvested in 2009. Harvested acres have been calculated since 2003 utilizing Global Positioning System and Geographic Information System software. In 2011, there were three bays involved in a 5-year pilot coordinated herbicide treatment project which included Phelps, Carmans and Grays Bays. There was an additional private coordinated herbicide treatment project on Gideons and St. Albans Bays. 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 2011 was 145.50, which generated 74 truck loads or 3.52 per day (see attached spreadsheets for further details). This compares to a total number of harvester loads of 251.25 in 2010, which generated 137 truck loads or 4.15

per day. In 2011, the total number of harvester loads decreased by approximately 42% and the total number of truck loads decreased by approximately 46%. This can be attributed to low milfoil growth, the reduction of work days, and the loss of one harvester 15 of the 21 work days.

B. Operating Highlights

Harvesting priorities were based upon impediment to boat navigation on the lake, with higher priority given to areas of the lake were milfoil has matted. Although there were some areas of the lake with significant milfoil 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 milfoil 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 2011, the North Upper Lake Option was implemented. At the beginning of the season, the program deviated from the schedule to harvest Cooks Bay and Upper Lake prior to Maxwell Bay, Crystal Bay and North Arm. The basis for this decision was matted EWM growth on Cooks Bay and lack of significant growth in the scheduled bays. Similar to past seasons, a combination of clear-cutting and limited channel-cutting was utilized to address harvesting priorities. This year there was a higher 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 milfoil 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 eleventh year as Project Manager in 2011. Mike Heiland returned in 2011 for his second year as the Site Supervisor with the program. An additional five employees were hired for the 2011 season, which included one returning and four new seasonal employees.

D. Equipment Operation and Maintenance

The LMCD contracted with Curfman Trucking and Repair, Inc. for their eleventh year for maintenance of the EWM harvesting equipment.

E. Status of EWM Harvesting Equipment

In the beginning of the 2011 season, the LMCD harvesting equipment consisted of three paddlewheel harvesters and a used transport barge purchased from Aquarius Systems in 2003 to improve the efficiency of the program. The three paddlewheel harvesters were purchased prior to the 2000, 2003, and 2005 seasons. On July 26th, Harvester #5 which was purchased in 2000, capsized and was deemed a total loss. During the remainder of the season, the program operated with the two remaining harvesters and transport barge. The LMCD is currently working with the League of Minnesota Cities Insurance Trust and evaluating whether to replace the capsized harvester.

F. 2011 EWM Harvesting Program Budget Analysis

The overall budget for the 2011 EWM Harvesting Program was $91,221. Estimated expenses incurred through mid October are approximately $69,000. There are a few other expenses incurred during the 2011 season 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 $32,800 from the MN DNR.