

**LAKE MINNETONKA CONSERVATION DISTRICT (LMCD)  
2009 Eurasian Watermilfoil (EWM) Final Harvesting Report  
(October 19, 2009)**

**A. Harvesting season data and conditions summary:**

1. Harvesting Season- The 2009 season consisted of approximately nine weeks starting on Friday, June 12th, and ending on Friday, August 14th. There were five days of harvesting cancelled due to the July 4th holiday, weather (August 7<sup>th</sup>), and shore conveyor failures (July 23<sup>rd</sup> and 24<sup>th</sup>). The length of the season, factoring in for cancelled days, was 41 working days. This was greater than the 35-day season in 2008 and the 38-day season in 2007. The crew operated the three LMCD harvesters and high-speed transport barge five days a week for up to 10 hours a day.
2. Water Level- Lake levels during the course of the 2009 season were quite low when compared to 2008. The lake level on the first day of the 2009 season was 928.57', compared to 929.53' in 2008. The highest lake level during the 2009 season was 928.57' on June 10<sup>th</sup>, compared to a highest lake level of 929.53' on June 23<sup>rd</sup> during the 2008 season. The lowest lake level during the 2009 season was 927.80' on August 6<sup>th</sup>, compared to a lowest lake level of 928.83' on August 14<sup>th</sup>. Overall, it appears that 2009 lake levels were down approximately one foot in 2009 when compared to 2008.
3. Acres Harvested- Total acreage harvested in 2009, including second harvests was 350. This compares to 309 acres harvested in 2008 and 372 acres harvested in 2007. Acres harvested during a season has been computed since 2003 utilizing a Global Positioning System and Geographic Information System software.
4. Harvester and Truck Loads- The total number of harvester loads in 2009 was 337.50, which generated 170 truck loads or 4.15 per day (see attached spreadsheets for further details). This compares to a total number of harvester loads of 192.50 in 2008, which generated 97 truck loads or 2.77 per day. In 2009, the total number of harvester loads increased by approximately 75% and the total number of truck loads increased by approximately 50%. 2008 is not a good season for comparison purposes due to the low EWM growth that year. A more appropriate season is 2007 because it had more similar EWM growth. In 2007, the total number of harvester loads was 282.25, which generated 148.00 truck loads or 3.89 per day. Comparing statistics from 2009 to 2007, the total number of harvester loads increased by approximately 11% and the total number of truck loads increased by approximately 7%.

**B. Operating Highlights**

Harvesting priorities were based upon impediment to public boat navigation on the open water, with higher priority given to areas of the lake that were 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 public boat navigation.

The LMCD has assembled a rotating harvesting schedule for Lake Minnetonka (see attached spreadsheet for further details). In 2009, the South Upper Lake Option was implemented. After harvesting on the the Upper Lake was completed around the July 4<sup>th</sup> holiday, this schedule was deviated to harvest Lower Lake South prior to Lower Lake North. The basis for this decision was EWM growth and the discovery of flowering rush at the end of June on some bays in Lower Lake North. Similar to past seasons, a combination of clear-cutting and channel-cutting was utilized to address harvesting priorities. 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 in general was encouraging, with a limited number of telephone calls from the public. Harvested milfoil was mainly composted at the University of Minnesota Landscape Arboretum, with occasional loads composted either at the Leuther Farm or Gale Woods Park. These three sites are a convenient distance from Lake Minnetonka, generally less than 10 miles from most offload sites.

### **C. Personnel**

Judd Harper served his ninth year as Project Manager in 2009. Jeff Schmidt returned in 2009 for his seventh year with the program and fourth year as Site Supervisor. An additional six employees were hired to round out the five seasonal crew positions for the 2009 season, with a mixture of new and returning seasonal employees.

### **D. Equipment Operation and Maintenance**

The LMCD contracted with Curfman Trucking and Repair, Inc. for their ninth year for maintenance of the EWM harvesting equipment. The efforts made by Curfman Trucking and repair the past nine years has generally resulted in improved efficiency and decreased downtime of the harvesting equipment.

### **E. Status of EWM Harvesting Equipment**

In 2009, the harvesting equipment consisted of three paddlewheel harvesters and a used high-speed 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. The 2009 season was the fourth year that the used high-speed transport barge was available to support the transporting of vegetation from the harvest site to the off-load site. The primary goal of the high speed transport barge was to increase the amount of work time (primarily harvesting time) and to decrease the amount of down time (primarily on site travel time). 2009 was the first year that statistics were collected on this (see attached spreadsheet), with staff needing to refine necessary statistics for comparison purposes in 2010.

**F. 2009 EWM Harvesting Program Budget Analysis**

The overall budget for the 2009 EWM Harvesting Program was originally \$109,000. This budget was later amended to \$100,000 with a reduction in grant funds approved by the MN DNR, as well as an anticipated reduction in interest income. Expenses incurred through mid October are approximately \$99,000. There are possibly a few other expenses incurred during the 2009 season in which invoices have not been received and paid.

**H. Overview of 2009 Challenges/Issues**

**Challenges/Issues**

**2010 Corrective Actions**

- Staffing
  1. Shortage on a few days- created primarily by floating position  
Investigate switching from 5-day work weeks to 4-day work weeks (10-hour work days)
  2. Early season and late season coverage  
Eliminate floating position (with employment expectations communicated up front)
  3. Improve daily start-ups and shut-downs  
Investigate options on extending the length of the season
  4. Clarification of duties and responsibilities of the Project Manager and the Executive Director  
Investigate options on better start-up and shut down times
  
- Harvester (transport barge) & truck travel times
  1. Travel time is problematic to off-load sites from certain areas of the Lake  
Investigate increasing the number of off-load and compost sites with the LMCD member cities and the private sector
  2. Travel time is problematic to compost sites from certain areas of the Lake
  
- Risk management
  1. Slippery surfaces of the equipment  
Mandatory inflatable PFD's for all LMCD employees
  2. Contracted truck preparations  
Re-evaluate truck preparation procedures
  3. Shore conveyor equipment (in particular in its upright position)  
Evaluate improvements to hydraulic and other safety options to shore conveyor equipment

**Challenges/Issues**

**2010 Corrective Actions**

- **Equipment Needs**
  1. Communication problems in the field
  2. Broken canopies on the harvesters, with no canopy on the transport barge
- **Consistency with policies and procedures**
  1. Preventive maintenance on outboard motors, harvesters, and transport barge
  2. Cutting options (clear-cutting vs. channel cutting)
  3. Cutting methods (tandem vs. Individually)
- **Shoreline Fragments**
  1. Fragments as a result of LMCD harvesting equipment
  2. Fragments not as a result of LMCD harvesting equipment

Fix or upgrade existing radios and canopies

Re-evaluate existing policies and procedures (update in writing)

Investigate options to address fragments as a result of LMCD harvesting equipment

Update policy relating to shoreline clean-up not as a result of LMCD harvesting equipment