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Date: September 15, 2008

To: Chris McCooe, Lynn Arnold & Chris Haller – LOC & HRA
From: Gerry Smith; President/Aquatic Biologist
Re: **Aquatic Management Program Update – Hamilton Reservoir**

Following our inspection of the lake on August 27th with Chris McCooe and Steve Proko, I was asked to prepare a brief summary of the 2008 Aquatic Management Program.

- Overall, the lake looked very good. I'd estimate that overall control/reduction of invasive watermilfoil weed throughout the lake following our June 20th chemical treatment to be >99% .
- The only area where milfoil was observed in the lake's north basin was a patch (estimated at ~25Ft x 75 ft.) in the inner-most part of the cove bounded by Island Rd., to the south and Sunset Lane to the north.
- Throughout the lake's southern basin, milfoil was only seen in the far southern end, where the stream/brook enters from the east. That area of milfoil was small as well. Continuous flowing water that occurs during/following chemical treatment in this area makes effective milfoil treatment impossible.
- The lake supports an important under-story of native submersed and floating-leaved plants. Submersed species are dominated by *Najas* (naiad), *Vallisneria* (tapegrass or wild celery) , *Utricularia* (bladderwort) and *Nitella* (muskgrass). Floating - leaved species include *P. epiphydrus* (ribbon-leaf pondweed), *Brasenia* (watershield) and *Nuphar* (spatterdock or yellow waterlilies).
- The growth of native species (for the most part) appeared to be in reasonable balance. Most of the submersed species were predominantly found growing at or near the bottom, where they wouldn't substantially impair swimming or other water contact activities. Maintaining native plant cover is very important to maintaining the lake's ecological balance and providing cover and habitat for fish. Management and treatment of watershield or tapegrass/wild celery should focus only in those areas areas of the lake where the plants are a significant nuisance for swimming or are encroaching on open-water.
- Spot-chemical treatment of several different areas where tapegrass/wild celery is locally abundant, should be strongly considered for 2009. Spot-treatment of a few areas of watershield in the lake's southern basin is recommended to occur sometime during the next several weeks. A more intensive post-treatment plant and field survey will be performed during September, with a year-end, project completion report to be prepared and submitted in the fall.
- For 2009, in addition to our existing contract with the Town of Holland and recommendations made above, we continue to recommend that HRA or LOC retain us to also perform base-line water quality sampling and analyses for the lake. The scope and costs for that sampling have been submitted previously to HRA/LOC and would cost about \$2,500 annually.