

Mohegan Lake District Minutes  
May 26, 2004  
7:30 p.m. @ Kohinor Restaurant

Attendance:

Denis Horbatuk, treasurer .....	Mohegan Beach
Ken Belfer .....	Mohegan Colony
Glen Johnson .....	Staff
Ralph Zucker .....	Section I
Laura Anderson .....	SOLE Beach, staff
David Wright, secretary .....	Mohegan Colony
Jay Cronin .....	Alpine Woods

---

The meeting began at 7:30 p.m. Stephanie Johnson, from the Yorktown Planning Department, spent some time informally discussing the Comprehensive Plan from 7:00 p.m. to 8:30. After this, we had a short meeting.

Glen reported that we need a \$300 bond for our wetland permit to install the shed on the lots donated by Jay, to create a new aeration line. Denis felt we should not need to post a bond; in the past, since we are a Town district, the Town has not required us to give the Town a bond. Denis, Dave and Glen will follow up.

The following agenda items were discussed:

1. Vouchers and bills paid?
  - A. May's addition: Staples account closed for non-payment

Denis reported that this had been cleared up. Dave noted Laura had spent three hours making copies of materials for Michael Martin, only to find the account had been cancelled without any notice to us. Supposedly it is now fixed. Denis reminded that the account card also needs the tax exempt card so they don't charge sales tax.

2. Laura Anderson as District Clerk
  - A. Clarification of terms of employment

This was clarified not to be a guaranteed minimum, but pay is only for hours worked.

3. Aeration system – status (Glen)

Glen said Alpine should be started in about two weeks. Yorktown Electric was low bidder. Due to numerous issues, it is unknown when (if) the boathouse electric will be functional. A guy wire needed to be replaced, and apparently Con Ed and Verizon cannot agree on who does what. Thus, the Alpine and South end aeration lines are completely out of action, and will remain so. The North SOLE Beach line is operating and Mohegan Beach is on.

4. Weed harvester -- status (Glen)

A. Can Dave pull 20 tons by hand this year?

The harvester is still not operational. The peak weed season runs through about June 21, Dave reported, when most of the weeds die off, and cause a massive algae bloom and oxygen depletion. Glen reported that Eric DiBartolo will not be able to fix it. It is hoped that the machine can be taken to a welder in Putnam Valley who will look at it. Since we have no weed harvester, Dave asked if we need summer help for anything. There was also discussion of being far above our \$12,000 salary line for this year, based upon hiring Glen, Laura and Nick. We have enough money, and can ask the town board to make a budget transfer if we need to do so later in the year, but it was agreed this is not good practice. Dave said we ought to at least hire a kid to pull weeds by hand, though it is unknown what quantity they could remove; something is better than doing nothing.

5. Michael Martin - status

Mr. Martin's proposal for rendering consulting services was approved. He met with Dave and Glen for a half day on May 21. See outline of presentation, attached.

6. Web site update - status (Dave)

Still, many of the items scanned in January are not on the web site. Denis said Nick is working on it.

7. Summer help - status (Dave)

Dave reported he had solicited for summer help, and had received a few resumes or expressions of interest. There was no clear resolution.

8. Projects - there are many - can anyone take one?

A. Hans Award – not discussed

B. Boathouse repair work – not discussed

C. Stormwater detention basin – Denis felt Town should handle this. Dave said, we've tried for many years to get them to do something, as can be seen in the documents scanned but not posted on our web site. They simply refused. Martin looked at this stuff and will hopefully give us some ideas. Ken noted that the Town has just installed similar "drainage improvements"

along High Street. This will more efficiently allow pollutants to be drained into the lake. Jay noted that the Town should have sewer contractor clean siltation out Dale Street stream; Dave said we've proposed installation of check dams there, also.

D. Fish stocking – Martin will give us a quote on getting this done later in the year.

9. May 26, 2004 items

A. Budget – can we hire summer help? Apparently not. Nor is there a clear need, without a harvester and without a functioning aeration system.

B. Who should we hire? Not discussed.

C. Weed emergency. No resolution.

D. Aeration emergency. No resolution.

E. Well No. 1 to remain off until P issue resolved. No resolution.

The meeting ended shortly after 9:30 p.m. Next meeting June 24 at Kohinor at 7:30 p.m.

Respectfully submitted,

---

David Wright

Addendum:

DW Meeting with Michael Martin  
Notes of DW Presentation to Martin  
with some of Martin's initial comments  
May 21, 2004

1. History of the Lake
2. 1970s and the formation of Lake District (1975)
3. Dr. Cardenas (Carpenter Environmental Associates, NJ) 1972 and 1977 reports recommended aeration system and dredging  
Paul Roland helped to design and install aeration undersized and generally inoperative, 1979 to 1989  
sporadic monitoring 1979 - 1989  
1982 bought first weed harvester, operated sporadically 1982 - 1989

4. 1982 KV Associates study – in connection with sewers feasibility study
  - said septic a minor contributor of P (Martin questions this)
  - need to control stormwater
    - a. We subsequently identified all storm drain catch basins, and diverted one pipe. But we did not solve major pollution source, the Christine Road catch basin.
  - hydraulic rate 1.75 years, virtually stagnant
  - 85% of water in and out is via groundwater
  - outlet is not always an outlet
  - consider 1970s DOT road work on Rte 6 culvert - is this a culprit?
  - should dredge
  
5. 1990s studies, Ten Year Plan
  - joined C-SLAP, more data collection generally
  - Gerry Smith data
    - a. experimented with low-dose alum treatments. His study showed that alum application significantly *increased* the presence of P. He never could explain this impossible result.
    - b. He recommended alum treatment. We did not do it because it was huge expense (\$32,000), and not likely to last more than a few months, since we have huge watershed contribution of P
  - Ken Wagner report (fish survey - biomanipulation) 1996
    - a. recommended removal of most of small panfish to help restore zooplankton population
    - b. we did some of this, but not much. Stocked about 3,000 walleye over the following five years. They lived. We never did the netting. Need and update, and netting and finish stocking program now.
  - Tinkered and upgraded the aeration system, not fully up to initial design (1.2 cfm per acre)
  - 1996 - the best water quality ever recorded. We used SONAR to control milfoil, and had spectacular water clarity for almost the entire season. Nobody knows why.
  - 1998 - started installing sewers. This project will be completed in 2004, with over 800 homes on east and west sides of the lake on sewers. If only we could stop people from using lawn fertilizer.
  
6. Current status and Plan
  - a. aeration now meets our design goals, but is not turned on due to endless bureaucratic and paperwork snafus. We feel this is useful (though we have no data to prove it, and have never had a full season when it has operated at design potential). It definitely brings up the bottom nutrients, but hopefully is reducing the release of P by oxygenating the bottom sediments. Also helps fish survive. Also stimulates aerobic bacteria to digest sludge. Electricity is a major cost, being reduced this year with PASNY rates.
  - b. weed harvesting - we are removing 15 to 20 tons per year. We consider ourselves well ahead of this problem.

- c. alum (2002) - we applied alum and had spectacular clarity for about half a season. DEC came and decided they are now regulating alum. We had gotten a letter stating alum was not regulated. Allied Biological did the treatment. We would like to use alum while working on a longer-term solution (see dredging, below). We want to start the process for 2005 now, and budget money to do the applications (2) next year.
- d. water clarity is poor, most of the time. 1 meter or less secchi. We no longer have the support for a "big ticket" project like dredging. Most people no longer swim in the lake, and many consider it to be hazardous.
- e. we would like to dredge, but DEC imposes too many expenses, due to the presence of copper in some samples. We tried to do a 4 acre pilot project (six feet of sediment), but could not afford the testing costs, let alone the actual dredging work.
  - 1. We would like to experiment with "bio-dredging," installing aeration jet to oxygenate the sediments in situ, like a wastewater treatment plant, but never leaving the lake. Sediment curtain to contain the turbidity. In the alternative, hydraulically dredge the sediments to shoreline facility (using a Keen mini-dredge) to do the same thing. Glen and I want to do a one-acre project this summer, and expand it next year. I feel this could remove 90% of the sediments at 10% of the cost of traditional dredging. This is a low-cost, low-tech possible solution to our problems.
- f. We want to finish the stormwater project ASAP. This is a large point source of P.
  - 1. But is a mere detention basin sufficient? Or should we install a P removal technology? Gave Martin the Stormwater information.
- g. We want to update the fish survey this year and do the netting/stocking program.
- h. We want to use our well, but the P content is too high. Fear the loss of inflow, once all the homes are on sewers (probably by 2005). Groundwater has high P content approx. 300 ppb P. We will turn it back on with a P filter.