

Draft Minutes of the New Durham Water Quality Committee Meeting 6-20-1

New Durham Water Quality Committee Meeting

New Durham Town Hall

June 21, 2018 6:30PM

Present: Art and Susan Hoover, Fred and Cynthia Quimby, Bill and Penny Meyer and Tom Rogenski

Fred opened the meeting at 6:32 PM

The minutes of the March 21, 2018 meeting were reviewed. Bill moved and Cynthia seconded a motion to accept the minutes as written. The minutes were approved by a unanimous vote.

Fred provided an update on certain aspects of the meeting of March 21, 2018 including the fact that Gene Young (from Alton) volunteered to become a member of the Watershed Management Plan (WMP) Working Group and participated in the selection of the WMP consultant. Of five consultants invited to respond to the WMPWG's RFQ, two invitees combined and brought in an engineering group to assist them. The WG selected a bid from Forrest Bell of FB Environmental which will work with DK Water Resources and Horsley Witten Group (engineers) to produce the Merrymeeting Lake and River WMP. The kickoff meeting was held in New Durham (Community Room) on May 31, 2018 at 6:30PM. In June Fred met David Neils who commented that this was as good a WMP group as anyone could get and that they were among the best the NH DES worked with.

Action Items:

1. Update on Milfoil. Variable milfoil was harvested and recorded by Mike Gelinis in Marsh Pond in May and brought to Fred for confirmation. Fred carried the specimen to NH DES where Amy Smagula verified that it was indeed variable milfoil. GPS coordinates for the plant's location were provided to Aqualogics Inc., on approval by Amy, and Aqualogics removed all visible milfoil from Marsh Pond in the week of June 7. Aqualogics then pulled milfoil from Jones Pond the week of June 11 and completed it by the end of the week. They were working in Downing Pond the week of June 20, 2018. Details on the quantity of this year's harvest are not yet available. The divers commented that the layer of filamentous green algae (a slime layer on the bottom of Marsh Pond) was three feet thick and made pulling milfoil very difficult.
2. Update on Cyanobacteria. Fred provided the results of the 2018 survey on Marsh, Jones and Downing Ponds which showed that Oscillatoria was first seen in Marsh pond on 6-12 only at the bottom of the pond. It was documented in Marsh and Jones Ponds on 6-16 and Anabeana was also seen in Downing Pond on that date (all at the bottom of the ponds). On 6-18 (after two days of 90+F weather) Jones pond was again surveyed and the number of organisms on the bottom was enormous, however, there was still no organisms close to the surface of the pond. Water temperature on Jones was 76F.

One sample from Marsh Pond was taken to the NH DES Labs where Amanda McQuaid confirmed the presence of Oscillatoria and identified many additional non-cyanobacteria organisms in the sample. Some of these were also potentially toxin producers. Due to the extreme amount of microscopic animal and plant diversity in Marsh Pond Bob Craycraft is thinking of having a field limnology class from UNH study the pond this summer. While the

bottom of Marsh Pond is very alive at this time and the oxygen saturation at the bottom is also high, as the summer moved on and the bottom becomes anoxic, there should be a dramatic change on the microscopic animals and plants found there.

3. Update on the Hatchery. The Hatchery Best Management Plan (BMP) working group plans a meeting on July 10, 2018 at Town Hall at 5:00PM. At this meeting Mike Gelinas will share his findings relating to the Hatchery's implementation of the Settling Ponds BMPs. Based on visual evidence that the current settling pond went anoxic in June and resulted in the creation of a floating scum layer. This floating scum eventually made its way into the outfall and into the river and was documented floating in Marsh Pond 2 days later and in Jones Pond two days after that. The PMSFH NPDES permit specifically states: "the discharge shall be adequately treated to ensure that the receiving water remains free from pollutants in concentrations or combinations that settle to form harmful deposits, float as foam, debris, scum or other visible pollutants". Mike recommends a BMP which will prevent anoxia from occurring in the settling ponds using aeration. He also believes linking two or three ponds together and never pulling any boards from any pond will retain more solids, and denitrofy some nitrates and nitrites into nitrous oxide. Unfortunately, it will not reduce phosphorus by much, only that additional phosphorus which might be bound to solids retained. Jason received a message from Fred concerning this and offered that although there was no electricity at the lower end of the hatchery he had seen aeration pumps which run on solar power.

Fred produced letters to Senators Shaheen and Hassan from the New Durham Board of Selectmen (BOS) requesting their assistance in forcing the US Environmental Protection Agency (EPA) to release the draft NPDES permit for the Powder Mill State Fish Hatchery (PMSFH). The Hatchery has been operating on an expired permit since December 2016 and the absence of another permit has prevented any further action regarding a waste water treatment facility.

Fred, Art and Russ Weldon are meeting with the Conservation Law Foundation on June 21 at noon in Concord to discuss the lack of activity being placed on remediating the phosphorus problem caused by the PMSFH.

Jason Smith (NHF&G Inland Fisheries) corresponded with Fred regarding funding for the 15% engineering plan and construction costs. Since we have passed the deadline for getting HDR Inc here to conduct these studies before July 1, Fred wanted to know if these funds can be found in the NH F&G budget in 2019 so the study can be conducted at that time. Jason said he was optimistic about these funds because he had been planning for this "under the radar".

Fred asked Matt Cochrane (HDR Inc.) and Aaron Switzer (Michigan Natural Resources) what the effect of the addition of chloride (from ferric chloride) into the river was likely to be. Both wrote back that this has not been identified as a problem but the answer is unknown at this time. Fred will ask Matt to look into this.

4. Update on the Watershed Management Plan. FBE is planning a public meeting to discuss the Action Plan for the WMP in New Durham on August 23, 2018 at 5:30PM at the New Durham

Elementary School. This date and time were chosen to attract the summer residents of Alton and New Durham and bring them, as well as permanent residents, into the discussion. Shoreline residents will have a major role in this WMP and their participation is crucial.

Fred has written to Garret Graaskamp, NH F&G, to ask for the State's involvement in correcting stormwater runoff from the Merrymeeting Lake State Boat Landing into the Merrymeeting River. He has responded that he will visit the area this summer and work on a plan for remediation of runoff.

Mike Gelinas has worked with NH DES Shoreland Protection to secure a permit for remediation of the Town's boat access to the Merrymeeting River. This plan has been accepted by the NH DES , Mike developed the engineering plan and plans to raise the funds necessary to remediate this location. Fred hoped that the project (estimated to cost around \$7000.) can be funded by Johnson's Restaurant, or some similar private institution, with the Town Landing sign acknowledging the environmental remediation was funded by that institution.

5. Fred welcomed Penny to the Committee and promised to write to the ND BOS indicating Penny has attended a meeting and the committee recommends she be made a standing member of the committee.
6. Tom Rogenski asked if there was a specific treatment for filamentous green algae. Fred responded that it will be reduced by aeration of the ponds but that our quote for this system was over a million dollars. Fred will look into alternatives.
7. Bill moved and Sue seconded a motion to adjourn. The vote was unanimous. The meeting adjourned at 7:14PM.

Respectfully Submitted,

Fred Quimby
June 21,2018