

Approved Minutes

New Durham Water Quality Committee

Wednesday June 16,2021

Community Room 6:30PM

Present: Fred and Cynthia Quimby, Bill and Penny Meyer, Keith Barnard, Maureen Knepp and Mike Gelinas

Absent: Casey Buell

New Business:

1. The meeting was called to order by Fred Quimby at 6:33PM.
2. The Draft Minutes of April 21,2021 were circulated and after a brief discussion Bill Meyer moved and Maureen Knepp seconded a motion to accept the Minutes as amended. The vote in favor was unanimous.
3. Fred mentioned that Amy Smagula has recently surveyed the Merrymeeting River for Variable Milfoil and found it present in Marsh, Jones and Downing Ponds. A map showing the density was received and shared with our divers along with GPS coordinates of the Milfoil. Mike asked why the patch in Downing Pond always stays the same and Fred didn't know. Amy saw this problem last year and made the divers go back and pull again, but the milfoil seems very resilient there. Fred mentioned that Variable Milfoil seems to be spreading upstream in Marsh Pond probably because boaters travel south and pick some up and drag it back on their way to the Boat Access point. Mike pointed out that there is now milfoil on the other side of the large beaver dam on Marsh Pond.
4. After briefly reading the rest of the meeting's agenda Fred mentioned that Bob Craycraft only mentioned a single item to be corrected in the future. Those collecting Deep site samples must write the actual collection depth on the bottle for the deepest sample collected. Fred mentioned that he marked bottom= on these bottles and feels this was confusing and several people thought this was a statement rather than a spot where a depth must be written. Otherwise, this was a very successful first month of sampling.
5. Mike Gelinas reviewed a meeting in which the Director of NH Fish and Game (NH F&G), Mr. Mason, reported that due to some proactive steps taken by Powder Mill Hatchery (PMH) staff, the water leaving the hatchery is between 14 and 17 ug/L. Later Mike talked to Edward Malone, PMH Supervisor, who told him they were liming the water before discharge.
6. Fred then asked the group to look at Table 1 and 2 which he prepared yesterday from the EPA ECHO national database. Table 1 shows the total annual pounds of TP, Total Nitrogen (TN), Total Suspended Solids (TSS), Ammonia and Biological Oxygen Demand (BOD) for the years 2015 to date. This year is based on 5 months of data. After 5 months in 2021 the numbers are much lower than any previous year's numbers for all variables tested. Next Fred asked to look at Table 2 which is the amount of fish feed fed by month, in 2020 and the first 5 months on 2021. In 2020 the first 5 months represented only 27% of the year end total feed. Fred then went back and calculated what the end of year numbers would be assuming the first 5 months represented 27% of the total. This showed that the TP would be the same as it was in previous years but that the TN would be much lower. Fred's conclusion was that either the 27% correction was not accurate or that liming had its greatest effect on nitrogen. Bill Meyer concurred.

7. Fred presented the year-to-date water quality data sent by Craycraft in the past week. The first table showed the results of testing at Site 1, the town boat access, each month from 2017 to present. On months where there was more than a single sample collected the table presents the average followed by the number of samples in parentheses. Fred pointed out that this year each value for TP at this site was lower than any previously sample for this specific month since 2017. Bill Meyer pointed out that the May 2021 sample was pretty close to the May 2019 sample and that the June 2021 value was pretty close to the June 2017 sample. Fred agreed.
8. Next Fred presented a table of water quality values from deep sites throughout the town from 2019 to present. For each year all samples taken at a single site were combined and an average for the year presented except for 2021 where there was only a single sample taken in May. Fred explained that at each meeting he will modify this table to present the averages for the year as they unfold. He will also create another table showing how these values change monthly throughout 2021. Fred drew attention to the increasing TP in Marchs Pond and the decrease in TP in Shaws Pond in 2021. One tributary to Marchs Pond called Country Lane brook, had 30ug/L last month and may have contributed to the problem in Marchs Pond early in the Spring. This brook probably dries up during the summer and this effect will disappear. We will repeat the sample in Country Lane brook in July-August and follow the changes in TP in Marchs each month to be sure there is no permanent problem. Fred explained that he was not particularly concerned because the transparency in Marchs Pond was 4.5 M which placed it clearly in the oligotrophic range. Chalk Pond had a transparency of only 2.7M but Mike Gelinas said this was a clear-to-bottom test result in a shallow spot accounting for the low number of Meters. Marsh and Jones Ponds had very low transparency and Maureen Knepp stated that this is a true representation of those sites where little visibility was noted. Mike Gelinas provided some insight into this by explaining that these two ponds have had a marked reduction in surface filamentous green algae allowing the sunlight to penetrate much deeper than before. This may cause other algae to grow in below 1M down reducing visibility. Maureen thought this Table along with an explanation should be presented to the residents of New Durham so they can see the effort the Committee is putting into maintaining water quality in town. There was a discussion about the best manner to publicize this information. Fred mentioned that we should wait a couple more months to be sure any trends we present are not chance effects and he thought, if the PMH continued to dump cleaner water into the river, that this may be mentioned as well. Committee members expressed some reservations about Fred's latter suggestion.
9. Maureen presented an update concerning her and Chrissy Morell's efforts in the Lake Observation by Citizen Scientists and Satellites (LOCSS) program. Members from the University of Massachusetts-Amherst came to both Shaws and Marchs Ponds and erected Lake Water Gauges. They report when the satellite is passing over the lake and Maureen and Chrissy read the level off the gauge and report the data. This is a trial to validate the use of satellites to calculate lake water volumes around the world. Chrissy has the campers reading the gauge multiple times a day and reporting the data to the program headquartered at the University of North Carolina. Maureen mentioned the website for the program and some of the program details.
10. Fred mentioned that the NH Department of Transportation (NHDOT) tried to remove a beaver dam built across the opening under the Merrymeeting Road Bridge and dislodged some granite blocks on the sides of the opening which fell onto the dam. This section of beaver dam and

granite has been left. Fred asked Don Kretchmer to look at this and he did and said that a new place for this stream gauge must be found. There was a brief discussion about this and the Committee decided not to place this stream gauge anywhere else for the time being.

11. New Durham was the recipient of a Piscataqua Region Environmental Planning Assessment (PREPA) Grant from the Strafford Regional Planning Commission (SRPC) to reevaluate the Towns setbacks for 1-4 order streams. They have invited the NDWQC to send a member to represent them in this evaluation, Fred asked for a volunteer. Bill went on to further explain the PREPA program details. Fred asked if Bill wanted to represent the Committee and he did not. Mike Gelinas went on to further clarify some of the findings from the meeting last night. Fred asked if Mike wanted to represent the NDWQC and he did. Fred asked the group if anyone was opposed to this appointment and nobody was, so Mike will represent the NDWQC in this effort.
12. Amanda McQuaid has already reported cyanobacteria blooms in the southern portion of the State, to date we have not seen it in any New Durham waters.
13. The Town has sent all the budget information to me in the past week and asked that I begin the 2022 budget from the Committee. Fred plan to use the 10-year budget projections he was asked to create two years ago to assemble the budget this year. Once it is assembled Fred will share it with the entire Committee and take recommendations until the full committee agrees with the budget. Committee members agreed with this approach.
14. Fred reported that the s319 grant BMPs for stormwater improvements continues to move along into the development of bidding documents but construction in 2021 is unlikely. The New Durham Highway Department saw numerous retirements and resignations during the pandemic and is short on staff. While they have hired several new employees, they are still short two employees and are unlikely to be in a position to start construction in September 2021. So, we will shoot for construction in 2022 and try to take care of all non-construction issues by hiring subcontractors this year. For instance, it is our aim to hire a company this summer to remove all the trees and their stumps necessary to perform the construction next year.
15. Keith asked Mike if he would assist him on the June 28 deep site testing on Downing Pond, since Bill will be away. Mike agreed to help. Fred will bring all the equipment and bottles to Downing Pond on the 28th. Fred will also bring all the equipment and bottles to Mike Gelinas on Friday June 18, 2021 for the testing in Chalk, Marsh and Jones Ponds.
16. Bill Meyer moved and Penny Meyer seconded a motion to adjourn. The vote in favor was unanimous. The meeting adjourned at 7:25PM.

Respectfully Submitted,
Fred Quimby, chairman