

October 13th, 2020
Pillings Pond Committee Meeting

- Introduction of newest Member: Darlene Kumar. Who has a background in Micro-Biology and will be a great resource to the Sub-Committee.
- Joe Onorato from Water & Wetland attending this meeting to provide an update to 2020 treatment and 2021 schedule.
- Follow up items from last meeting:
 - Bellevue Island: Kirsten McRae of Board of Health sent letter to owner of Bellevue Island. No response. Sent 2nd letter
 - Hazard Trees hanging from Bellevue island- Trees are responsibility of the Island. Town can't demand that they cut the trees.
 - Assessor's office: Water view tax inquiry. Used to be a separate line item and it's no longer there. Meredith Stone at town of Lynnfield will follow up to Kirk
 - Bank Restoration & Erosion controls allowed will be presented next week to ConCom for approval to publish
- Introduction of Joe Onorato – Water & Wetland
 - Took over late summer 2020 for Town Treatments of Pillings Pond
 - Pond was inundated with microscopic material
 - 2020 was a reactive year, later than Water & Wetland would have liked to have done proactively
 - Algae was a major concern and it was tackled late in the year.
 - Copper Sulfate was used that is also used in Drinking Water reservoirs. No restrictions were created by this treatment
 - Split into 3 treatments (can't treat it less than twice)
 - Dissolved oxygen was OK – no risk to fish kill
 - Clarity was sub 2.5 feet – pretty bad!, clarity improved to 5 feet at second treatment. Spiny Naid treatment was completed in partial area of the pond due to the late start and town budget.
 - Treatments were a factor for increased clarity over lack of rain/runoff
 - Question from Joe DiBlasi – Spiny Naid concerns with seed drop in the fall. Is there a challenge for next year now?
 - Answer: unlikely to affect 2021 treatment. Will start treatment earlier in the year and tackle the problem early, Diquat was the chemical used.
 - Hydro-raking – is about 10,000 an acre vs a few hundred an acre with chemical. Hydroraking doesn't remove seed bed and creates a lot of fragments of spiny naid. Would only be worthwhile for a beach area or around a dock etc.
 - Don Gentile asked about Copper Sulfate vs Alum
 - Alum addressed the source – phosphorous
 - Copper Sulfate attacks the problem – Algae
 - Joe would need to see more water quality and sediment samples to provide a proper recommendation

- Alum may be worthwhile for long term strategy as copper can accumulate on the bottom but it takes many, many (hundreds) years to have an effect since the copper is so low that is used in treatment and naturally does exist in the pond.
 - Joe Onorato recommends EarthTech – a copper sulfate that specializes in distributing copper in the water column and floating there rather than sinking. This limits the need for repetitive treatments for algae.
 - Question on what an appropriate budget would be for proper treatment:
 - Joe O: \$15,200 is proposed budget for 2021 which includes EPA filing.
 - This would sufficiently maintain the health of the pond with EarthTech (drinking water approved)
 - Joe O would like to see more detailed water testing for algae, etc before and after treatments
 - EarthScience (manufacturer of EarthTech) is providing free testing.
- When should we be testing the water:
 - Recommended during the course of treatment, multiple water quality test during April – September
 - Also after heavy storms
- Bates Book filtration? Joe O recommends Bio-Char (activated charcoal) that could filter Bates Brook coming into Pillings Pond from King James and West Peabody. Think of a fridge water filter. These filters are cheap, about \$50 each for a Bio-sock. Worth investigating.
- Antonio presented on Dredging. Materials provided to Kirk for ConCom's review. Estimated total of dredging is \$5 million for 45 acres for the half of the pond that hasn't been dredged. Expected cost of \$5 million for material hauling. Unknown costs for engineering plans.
- Drawdown – Emily still working with Consultant and DPW regarding drawdowns. Concerns with excess vegetation growth if drawdown is overextended.
- When is DPW lowering the dam so boater have notice to take their boats out. Mark McDounough's boat was in the mud one year because there was no notice of the the dam being opened up for winter.
- Next meeting schedule for November 10th.