

Minutes

Lakes Management Advisory Committee

December 1, 2020 7:30p.m.

Present: Committee Chair Debra Oliver Dewing

Committee Members; Alpesh Amin, Ethan Grodofsky, Andy Hilton, Derek Jackson, Scott Kuehm, Jaro Mesicek, Mike Russo

Borough Manager Mitchell Stern, Solitude Lake Management representative Bob Schindler, Borough Council Liaison Tom Menard, Environmental Commission Liaison Allison Rankin

Not present: Tina Gargano, Frank Luzzi

Student Auxiliary Members: Lukas Dequina, Yash Samat, Ben Schuckman

Committee Chair Opening (Debra Oliver Dewing)

- Approval of Minutes of November 3rd meeting: Motion and Second
- Jaro received a Town citation for his 16 years of service to the community. Congratulations!
- Welcome to new member Derek Jackson
- Bob and Tom presented the 'Living Shore Line' proposal to the Borough Council and it was approved Nov 9th. April 22nd 'Earth Day' is the targeted implementation date.
- Derek and Debra attended worthwhile sessions of the NJ Rivers Conference online. May want to share what they learned at a later meeting. Recordings now available on NJ Highlands Coalition YouTube channel for others to view.
- We may need to focus on the entrance and exit to the canal between Mountain and Wildwood Lakes. Depth was 5 ½ feet at each end in June of 2013 (per 7/02/2013 Committee notes). Now it is less than a foot in some places, primarily the beach at the ML Club.
- *Know Your Lakes* Brochure, we are waiting for a response from the League of Women Voters
- We are thinking about planning a spring walk or kayak of the lakes for the Committee and Borough Council members to educate and promote interest.

Borough Manager's Report (Mitch Stern)

- The natural refilling of the lakes began December 1st. Keep in mind for 2024 drawdown that lakes were "stubborn to lower" in 2020. Boulevard end of Wildwood Lake did not draw down well, likely because of sediment fill-in.
- Island Beach retaining wall is complete
- Hydroraking will begin at Birchwood on December 11th.

Solitude Lake Management Report (Bob Schindler)

Full Year-end report on Committee website

- Overall, 2020 warmest summer on record. Less rainfall than usual.
- The lower the water levels, the more decomposition and the softer the lake bottom; the bottom layer will become thicker and the lake will look worse.
- Permit will help us next year when we won't have to distinguish the top from the bottom.
- Birchwood –
 - Hydroraking: Prior years' work has been successful and work will continue in similar fashion December 2020. Dissolved oxygen improvement, finally, due to less decomposing material as project progresses. Good goal of 5-year hydroraking program may be 90% open water, depth 3-4' throughout. Bob recommends probing depths. Do not want organic material to move into and settle in deep area.
- Crystal: Note difference between white and yellow water lilies. Yellow around island for many years; don't spread so no concern. Some white; we watch these. Water clarity 6-7' maintained. Stable overall last ten years.
- Sunset: Water lily control to be focus in 2021 so that water lilies do not change ecosystem of the lake adversely. Summer 2020 aggressively treated inlet area. Much died there but herbicide did not affect entirety of rhizomes and they spread.
- Small Basins
 - Olive, Shadow and Cove – 2020 was a better-than-average year. Plan is to continue maintenance. Cove: unique water chemistry vs other small basins. Stable, 2.5-3.5 feet water quality. Dark, almost tannic, turbid appearance but health fine.
 - Grunden's Pond: Low water level for much of the 2020 season; good aesthetic appearance; low dose maintenance treatments (here and Olive) with Earthtec were effective. Generally, Solitude finding repetitive, low dose treatments working well and using less product than less frequent, higher dose old ways.
 - Overall, significant amounts of phosphorous in these small bodies.
- Mountain Lake
 - 'Reactive' plan recommended for managing bassweed, reducing as needed for health of the lake and recreation. Suggests educating residents that bassweed is a healthy plant. The presence of this and other native submerged plants is not bad but good.
 - Alum Treatment is not planned for 2021. 2020 Sonar for Eurasian milfoil; 2015 was last time before this so product and application strategy provided good long-term control
 - Reviewed August 2nd-August 3rd surprise algae bloom. Treated promptly and subsided promptly. Was new sand at Island Beach post-renovations (and elsewhere) the contributing factor? Storm event coincides neatly with sand additions. Investigation of effect of sand (via nearby mine) on 2019 algae blooms at Lake Hopatcong may be suggesting link. Noted that blue-green algae not all about phosphorous but promoted by nitrogen, other gases being released from the bottom...

- Wildwood: issues about lake depth will be addressed next year. 2-3 acres at north end little depth. Fine sediment will need more than hydroraking to remove. 2020 a typical season. Filamentous algae a little higher; more persistent at north end.
- We must get phosphorus treatment early next year.
- Lakes Cleaning – 2 weeks is scheduled for Birchwood next week.

Please see Bob's recommendations in full detail in the Annual Report.

Questions and Additional discussion

- Bob would like to put a new, single aeration system in Olive and Shadow. We would need only one system with multiple diffusers. Replace current 3-diffuser system in Shadow with a single system of 4-5 diffusers in Shadow plus 2 in Olive. Acceleration of breakdown of organic material at bottom will help bacteria treatments work better. Aeration is an inexpensive management tool, a cost-effective way to decrease nutrient loading vs treatment.
- Debra asked if we need aeration anywhere else and is the current system in Birchwood sufficient. Bob said that the current system in Birchwood now deemed to be sufficient, doing the job it was supposed to do. (This was not the hypothesis for several years. Likely, reduction in water lily mass restoring balance and positively affecting dissolved oxygen levels in water column.)
- Bob recommends NEW program of regular dissolved oxygen profiles. Avoid waiting until a problem exists, as happened in Birchwood.
- Tom asked about the permit for dredging. We are waiting for the Engineers to get a project cost for the permits. Encourages submission by end February for August approval timeline, which would allow for late autumn hydroraking.
- Jaro asked if the treatments affect the fish in any way. Generally, no, the copper sulphate may have some affect on small spawning fish in early spring, but it doesn't stay in the water long.
- Derek asked about the budget for the dredging project and if approved will it affect our hydro raking plans. Bob said once approved we need to review what we want to accomplish and allocate resources accordingly.