

FRIENDS OF MAYLANDS LAKES

JANUARY 2023

This edition of our newsletter is well overdue and hence longer than usual, in part because considerable remediation work has been undertaken over that time. This includes:

- Installation, twelve-month trial and subsequent purchase of 2 floating solar-powered ultrasonic units on lake Brearley. These emit ultra-high energy waves, purportedly destroy the harmful blue-green algae cells pervading the lake (fish, animals and plants are unaffected). It is unclear how effective the units are as the bacteria persists.
- Installation in late 2021 of a mixer on each of the lakes (as recommended by GHD Engineers). These are designed to inhibit algae growth via destratification. They continuously mix the water (deep with shallow) to eliminate the temperature differential in the water column. The mixers are located at the deepest point in each lake, so that water from the extremities gravitates to them. Water temperature monitoring indicates the units are mixing the water relatively close to them, effectively (on Brearley more so than Bungana – it is hypothesised this is due to the differing shapes of the two lakes). However, monitoring is yet to take place over a larger radius.
- Dredging of Lake Brearley in early 2022. Unfortunately, the lake was only partly dredged over a period of 6 weeks (compared to 4 months for Bungana) despite concerted efforts by the FOML committee for a 10-12 week dredging program (as recommended by the dredging contractor). Moreover, not all the hard wall perimeters (shallows in which the midge is known to breed) were dredged. Ultimately an estimated 17% of the target volume of sediment was removed. However, the nutrient concentrations within that sediment, were considerably higher than expected.
- Ongoing treatment of Lake Brearley with mosquito Larvicide, to the maximum allowable level under licence, as midge numbers persist. While the number of midges is less now than earlier this summer, drying clothes inside remains necessary for the fifth consecutive year. The same applies to entertaining outdoors in the evening.
- Installation of a rain garden in Tourer Court. It receives storm water from one of the two drains in that street, which would otherwise flow directly into Lake Brearley.
- Another large revegetation project was undertaken in May (adjacent to the northernmost Gazebo on Lake Bungana). Due to the size of the area planted, it was completed over two consecutive weeks. The project, part funded by a \$30K State Government grant (courtesy of Lisa Baker) and strongly supported by our hard-working volunteer planters, was a huge success, despite numerous sedges being subsequently uprooted out by the pesky purple swamp hens. The new native vegetation will in time transform that stretch of the Lake's perimeter, providing much needed biodiversity along the foreshore. Our sincere thanks to the City of Bayswater for the substantial site preparation works, including removal of large tracts of matted root mass from the shallows. Special thanks also, to Councillor Giorgia Johnson for her assistance as a volunteer planter and to Councillor Catherine Ehrhardt for bringing along her much sought-after chocolate brownie cake.
- 400 sedges were planted along the hard wall perimeter of Lake Brearley (between Tranby Rd and Tourer Court) in May last year. These are thriving and are expected to multiply sufficiently to contribute significantly to nutrient removal.

- One dose of Aquaritin was applied to Lake Bungana in late October. Four doses were applied in rapid succession to Lake Brearley in November. The clarity of water in Lake Bungana appears to have improved since the treatment. Little if any change has been observed in lake Brearley. Aquaritin is a short-term fix, which treats the symptoms rather than the cause. The benefit of continuing to apply it, is questionable, including from a cost perspective.

Our thanks to Patrick Gorman for the \$450K one-off federal government grant towards improving the water quality of the Maylands Lakes. While the funds have not yet been earmarked for any specific works, potential initiatives are currently being considered. Patrick's continued interest in the welfare of the Maylands Lakes is greatly appreciated.

FOML strongly supported the recent amendments to the City's "Keeping and Control of Cats Local Law", adopted by Council in 2022, albeit it is yet to be ratified by the State Government. The Maylands Lakes precinct is one of the 43 natural areas where domestic cats are now prohibited from roaming 24/7. There is also a new clause 2.2 "Cats in Other Places" which requires that cats should not be in a public place unless under "effective control" (held by a person who is capable of controlling the cat, securely tethered, secured in a cage, or controlled by any other means to prevent escape). We are hopeful the new law will help to reduce the carnage caused to local native fauna, by roaming domestic cats.

Despite virtually all the remediation measures recommended by the independent "Stage 2 Management Report" in 2016 and the GHD "Management Options Report" in 2020 having finally been implemented, the water quality in Bungana and Brearley lakes remains substandard, with nutrient levels considerably higher than the ANZG 2018 guidelines (according to the water quality monitoring report released by Urbaqua in

April 2022). Of particular concern, is the high level of blue-green algae, a bacteria that poses a significant health risk.

We have now reached the stage where other interventions must be explored. Ranking high among these is the urgent need to reduce nutrient inflow to the lakes primarily from numerous stormwater drains. The Cormorant population inhabiting "shag island" (Lake Brearley) and now spreading to the other islands, also contributes and estimated half a tonne of guano (high phosphate content) per year to the Lake. Moreover, the population of these birds is increasing exponentially. Revegetation of the islands with endemic shrub-like vegetation is currently being considered to eliminate this source of contamination. The revegetation would also provide much needed safe habitat for a variety of other water birds domiciled on the lakes.

Finally, at the committee's recent AGM, I relinquished my role as Chairman after six years at the helm, albeit I remain as a committee member. It has been a privilege to represent the Maylands Lakes community and I look forward to continuing to do so in my new capacity. I take this opportunity to sincerely thank you for your invaluable contribution to the remediation efforts and for your support of the FOML. Special thanks to the committee members for their unwavering support and I welcome the incoming Chairman, Kevin Hamersley who has been stalwart in his support for several years. Kevin's efforts have, among other things, resulted in around \$100K of government and private sector grants being secured by the FOML for the rehabilitation of the Lakes and their surrounds. He has also played a key role in the recent installation of a drinking fountain on Bungana Lake and designing interpretive signage about to be erected around the Lakes.

Geoff Trott

P.S. We encourage you to continue following our website at www.friendsofmaylandslakes.org for up-to-date information regarding the Maylands Lakes. You are welcome to contact us via the website with any questions you may have or information you wish to convey to FOML.