

Markham Sub-Committee Meeting Minutes

May 11, 2023, 2:00 PM - 4:00 PM
Council Chamber

Sub-Committee Members	Regional Councillor Alan Ho (Chair) Councillor Karen Rea Councillor Andrew Keyes Councillor Amanda Collucci Mayor Frank Scarpitti (Ex-Officio) Regional Councillor Jim Jones (Ex-Officio) Regional Councillor Joe Li (Ex-Officio)
Regrets	Deputy Mayor Michael Chan (Ex-Officio)
Council Members	Councillor Ritch Lau Councillor Juanita Nathan Councillor Isa Lee

1. CALL TO ORDER

The Markham Sub-Committee convened at 2:05 PM with Regional Councillor Alan Ho in the Chair.

2. DISCLOSURE OF PECUNIARY INTEREST

There were no disclosures of pecuniary interest.

3. SWAN LAKE REPORT AND PRESENTATIONS

3.1 ANNUAL WATER QUALITY REPORT (STAFF)

Robert Muir, Manager, Stormwater, introduced Kumar Prathapan, Senior Manager, Infrastructure, Zahra Parhizgari, Engineer, Environmental Services, and Tammy Karst-Riddoch, Aquatic Scientist from AECOM. Mr. Muir provided an overview of the agenda and provided a presentation to detail the Swan Lake location and historical context.

Zahra Parhizgari presented the 2022 Water Quality results detailing current processes and improvements to the water quality. Ms. Parhizgari detailed the recurring algae growth in 2022, which she noted as possibly due to reduced precipitation as well as the absence of aquatic vegetation in the Lake. Ms. Parhizgari also provided an update on chloride concentrations within the lake which she noted will vary from year to year depending on the amount of snow and salt application but confirmed that chloride concentrations dropped considerably in 2022 as a result of the stormwater management system maintenance.

3.2 REVIEW OF THREE RESEARCH INITIATIVES (STAFF)

Zahra Parhizgari, Engineer, Environmental Services, provided an overview of City Staff's response to Friends of Swan Lake Park's various proposals for Swan Lake Park. Ms. Parhizgari outlined how some of the current processes address issues outlined by Friends of Swan Lake Park, such as oxygen level improvements. She explained why the oxygen enhancement research proposal was not supported due to the potential for toxicity as well as high costs. The proposal for research into chloride treatment was recommended as there is no feasible way to remove chloride that is not cost-prohibitive and this research, if successful, would be a valuable tool. Ms. Parhizgari also advised that a phytoplankton identification was already undertaken, noting that there would not be a further benefit of surveying lower-level aquatic life at this time, as suggested by Friends of Swan Lake Park. Ms. Parhizgari confirmed that there may be further research opportunities with Trent University.

3.3 TOWARDS A COMPREHENSIVE RESTORATION PLAN FOR SWAN LAKE (FOSLP)

Fred Peters, Friends of Swan Lake Park (FOSLP), shared a brief video of Swan Lake before delivering a presentation entitled "Three steps to restoration," detailing proposed restoration initiatives for Swan Lake. Mr. Peters noted that FOSLP's current request is to approve a process that will lead to an objective assessment of what level of water quality is attainable for Swan Lake and how it could be best accomplished. Mr. Peters suggested a process involving various stakeholders to identify options and objectives, before preparing a comprehensive plan to be submitted in 2025 / 2026. Mr. Peters provided some visioning of what could be reviewed at a future workshop, including current initiatives and new initiatives for 2023.

3.4 REVIEW OF FOSLPS TOWARDS A COMPREHENSIVE RESTORATION PLAN FOR SWAN LAKE AND THE 2023 PLAN (STAFF)

Zahra Parhizgari provided an overview of Staff's response to Friends of Swan Lake Park's (FOSLP) proposed restoration initiatives, detailing implications and clarifying some content within FOSLP's 'comprehensive restoration plan'. Ms. Parhizgari detailed how some proposed activities at Swan Lake could impact other water systems throughout the City. Ms. Parhizgari also noted that sediment removal is not recommended by Staff as sediment is needed to grow aquatic plants, dewatering and sediment removal will impact the park environment and usage, and that disrupting the sediment could release contaminants, while being costly to remove and store or dispose. Ms. Parhizgari confirmed that the City's team include all the expertise required, and suggested considering a workshop with external experts after Phase 1 completion around 2025/ 2026 to ensure a meaningful workshop following additional studies and treatment.

2023 Plans and Recommendations

Robert Muir, Manager, Stormwater, outlined planned activities at Swan Lake Park in 2023/ 2024 including core and complementary measures and alternative measures. Mr. Muir advised that the planting of submerged aquatic vegetation was originally planned for Phase 2 but confirmed that this element was advanced to Phase 1, which will compete with algae for nutrients, provide habitat for zooplankton and secure sediment.

The Committee provided the following feedback:

- Requested clarification on the sediment removal not being recommended by Staff, noting that sediment removal was undertaken at Toogood Pond. Staff confirmed that in the case of Toogood Pond, there was excessive sediment buildup affecting the aesthetic and depth of the pond, which Staff noted are not concerns at Swan Lake. Staff confirmed that the recommendation against sediment removal from Swan Lake considers contamination of that sediment.
- Questioned why Staff do not support aeration of Swan Lake. Staff clarified that mechanical aeration is not supported at Swan Lake because it would disturb the sediment, causing it to incorporate with the water in the lake. Staff noted that chemical oxygenation is possible but may cause a toxicity issue and will be expensive.
- Encouraged Staff to continue to meet and provide updates on progress throughout the year during the project.
- Agreed that a workshop could be held with community stakeholders toward the end of Phase 1, noting that consultation with the community could continue prior to the workshop.

Moved By Councillor Andrew Keyes
 Seconded By Councillor Karen Rea

1. THAT the report entitled “Swan Lake- 2022 Water Quality Status and Updates” be received;
2. AND THAT Staff continue to implement the Long-term Management Plan for Swan Lake approved by Council in December 2021, including advancement of submerged aquatic vegetation, research into chloride treatment, and flow diversion evaluation (previously in Phases 2 and 3 of the Plan);
3. AND THAT Staff report back annually on water quality results and evaluation of adapted Core and Complementary measures for consideration in Phase 2 of the Plan through the Markham Sub-Committee with the participation of the Friends of Swan Lake Park;
4. AND THAT the next review of the Plan will be in 2026 (after the completion of Phase 1 and other measures as listed under item 2);
5. AND THAT Staff be authorized and directed to do all things necessary to give effect to this resolution.

Carried

4. ADJOURNMENT

Moved By Councillor Andrew Keyes
 Seconded By Councillor Karen Rea

That the Markham Sub-Committee meeting adjourn at 4:06 PM.

Carried