

Highland Creek Treatment Plant (HCTP) Neighbourhood Liaison Committee (NLC)

Meeting Minutes Summary Meeting # 36

Thursday, June 15, 2023 @ 7:00 pm
Highland Creek Treatment Plant
51 Beechgrove Drive
Administration Building Training Room (Enter through Entrance A)

The discussion captured at the meeting is summarized below. Answers were provided by City staff in attendance.

1. Welcome and Introductions (7:00 p.m.)

- Frank Moir (Co-Chair and Resident) called meeting into order

2. Review of Agenda and June 15, 2022 Minutes (7:10 p.m.)

- Action Item: Scheduling of Plant Tour

	Action Item	Responsibility	Status and/or follow-up
1.	Look into potential tour of Highland Creek plant tour for the committee	Martin Shigeishi	Touring the Highland Creek Treatment Plant could be restricted due to the active nature of the incinerator building. Tour for NLC members will take place of the liquid side of the plant. Tentative date July 14 at 2:00pm

- Members update from Co-chair Frank Moir:
 - Frank is stepping down as co-chair, but will continue to attend to meetings.
- Plant update from Martin Shigeishi:
 - Frank Quarisa, Director of Wastewater Treatment, is leaving the City of Toronto and sends his regrets as he couldn't attend tonight. He sent a letter, read by Martin Shigeishi as follows:

Dear NLC members,

I regret that I'm not able to attend your meeting this evening to announce my departure from Toronto Water and to thank you personally for the support you have provided me and the staff at the Highland Creek Treatment plant over the years. You have been a pleasure to work with, and I will forever admire your hard work and dedication on behalf of your community and the City of Toronto.

I want to pay special tribute to Frank Moir for his many years of dedicated work as chair, as well as Barbara McElgunn and the late Allen Elias. All three have demonstrated tremendous dedication and passion for the NLC and the community and have left their mark on how Toronto Water operates and manages the Highland Creek Treatment Plant.

Thank you everyone.

Frank Quarisa

- Martin Shigeishi will be retiring at the end of the month, Anthony Pigaidoulis is the acting Plant Manager.

3. Election of New Community Chair (7:15 p.m.)

- No nominations or statements were received from interested parties. Frank Moir will continue to co-chair until a replacement is found.

4. Plant Updates (7:30 p.m.)

Martin Shigeishi provided a brief summary of the Plant Performance and Operations:

i. Odour Complaints Received

The Highland Creek Treatment Plant has received a total of seven complaints in 2021, consisting of four odour-related complaints and three noise-related complaints. In 2022, the number of complaints decreased slightly, with a total of six complaints, including two related to odour and four related to noise. As of the current year, 2023, no complaints have been received thus far.

ii. Sewage Bypass Events

There have been no sewage bypass events at the Highland Creek Treatment Plant in 2021, 2022, or as of the current year, 2023.

iii. Power Interruptions & Impact on Operations

In terms of power interruptions and their impact on operations, the Highland Creek Treatment Plant encountered a total of nine incidents in 2021. Among these, eight were due to power interruptions, while one was caused by a mechanical failure. In 2022, the number decreased to five, with four being power interruptions and one being a mechanical failure. As of the current year, 2023, there has been one power interruption reported to date.

iv. Ash Lagoon Cleaning

In 2021, approximately 4,519 tonnes were removed from both lagoons combined. In 2022, the cleaning operation continued, resulting in the removal of approximately 3,564 tonnes from both lagoons. As of the current year, 2023, the cleaning process is currently underway, specifically focusing on the south lagoon. The expected completion date for the cleaning of the south lagoon is June 23, 2023.

v. Biosolids Haulage for Off-site Disposal

There has been no biosolids haulage for off-site disposal from the Highland Creek Treatment Plant in 2021, 2022, or as of the current year, 2023.

vi. Stack Emission Testing

In August 2022, the contractor (RWDI) conducted annual source testing of the emissions from the incinerator at the Highland Creek Treatment Plant. The results of the testing demonstrated that the emissions were well below the regulated compliance limits specified by the Ministry of the Environment, Conservation and Parks (MECP) for both the regulated and voluntary parameters.

For the regulated testing, the following results were obtained:

- Dioxins and Furans: 25.8% of the standard limit
- Mercury: 33.4% of the standard limit

Regarding the voluntary testing, the following results were achieved:

- Particulate Matter (PM): Less than 1% of the standard limit
- Nitrogen Oxides (NOx): 6% of the standard limit
- Sulfur Dioxide (SO₂): 6% of the standard limit

As for the stack emission testing in 2023, it is currently in progress and is expected to be completed on June 16, 2023.

Q: Is the information regarding these statistics publicly available online?

Martin Shigeishi and Anthony Pigaidoulis have both verified that emission testing results are not published. However, the annual report of plant operations for the year 2022 can be accessed on the official website of the City of Toronto and emission data will continue to be shared at regular meetings.

5. Capital Projects (7:45 p.m.)

Beechgrove Influent Chamber

The new influent chamber and sewer connection work, originally part of the Headworks project, was de-scoped and re-tendered as a separate project.

Current status: Awarded to Clearway Construction in June 2020 and substantial completion awarded February 10, 2022. Final construction is complete Q1 2023. Only outstanding work is potentially some repairs to their landscaping caused by an Enbridge gas line repair.

2. Cleaning & Rehab of Anaerobic Digesters and Waste Gas Burners

Includes cleaning of 3 digesters, complete replacement of the existing (aging) waste gas burners (i.e. new building and equipment), cleaning and replacement of gas proofing of four digesters and all appurtenances (heat exchangers, pumps, piping) and upgrade of all related control systems.

Current status: Substantial completion was awarded in June 2020. Final commissioning and training for high pressure digester gas system to be completed Q3 2023.

Firm Capacity Upgrades (Contract 1 & 2)

Contract 1

The purpose of Contract 1 is to allow reliable operation until completion of new NE Plant and address more immediate needs regarding mechanical, electrical and structural repairs to the primary/secondary clarifiers and tunnels. It also includes replacement of NW & SW primary sludge & scum collection systems, as well as upgrades to aeration tanks and the phosphorus removal process.

Current status: Awarded to Bennett Mechanical in September 2019. Construction is ongoing. Start-up of new primary sludge and scum collection system is complete in the 75% of Primary Tanks and Final Tanks in the west plant are complete. 50% treatment trains in the southeast plant are complete with the majority of the new blowers commissioned and running. Final completion is expected in Q1 2025.

Contract 2

The purpose of Contract 2 is to construct a new northeast plant consisting of primary, aeration and secondary systems as well as to address other long term structural repairs to galleries/tunnels throughout the facility. It will include an additional high voltage electrical feed from Toronto Hydro and a new High Voltage Substation.

Current status: Detailed Design for the base scope nearly complete, with tender drawings under review now. Some additional design scope has been added to the project and is expected to be ready for review soon. Tendering is expected in Q3 2023 and construction commencing by Q3 2024.

Disinfection and Electrical Upgrades

Upgrades to disinfection and dechlorination chemical dosing systems and various electrical upgrades.

Current status: Contract was awarded to Bennett Mechanical in September 2021. Anticipating commissioning in Q3 2023 with completion Q2 2024.

Sludge Storage Tanks Cleaning and Biofilter Upgrades

This project involves the regular cleaning and inspection of the Sludge Storage Tanks (SST), upgrades to Thickened Waste Activated Sludge (TWAS) pumping system as well as upgrades to the Biofilters serving both the SST and TWAS systems.

Current status: Awarded to AECOM on July 19, 2021. Detailed design is ongoing. Currently coordinating with Transportation Services to assess what is required to install sidewalks along Beechgrove, allowing safe pedestrian access to all HCTP gates and parking facilities as part of this project.

Fluidized Bed Incinerators (FBIs) and South Facility Upgrades (SFU) Projects

The FBI project involves construction of two pre-purchased FBIs and related equipment as well as upgrades to the dewatering facility and general building improvements to support the new equipment. The SFU project includes the architectural, structural, building mechanical, and electrical upgrades to bring the other areas of the Dewatering building and tunnel up to a state of good repair to match the new FBI building. Both the FBI and SFU projects have been awarded to Jacobs for design. Both projects will be tendered together as one construction project.

Current status: Awarded to Maple Reinders. Construction is underway. Anticipated completion date Q2 2029.

The construction sequence is expected to occur in four phases:

- Phase 1 – Process equipment relocations and Phase 1 of the SFU scope (Q3 2022 – Q3 2024)
- Phase 2 – Partial building demolition (Q3 2024 – Q1 2025)
- Phase 3 – New FBI Building construction (Q1 2025 – Q2 2028)
- Phase 4 – Phase 2 of the SFU scope (Q2 2028 – Q1 2029)

Q: What are the benefits of Fluidized Bed Incinerators?

Fluidized bed incineration technology presents significant advantages over the older multiple hearth technology. Firstly, it eliminates the bottleneck associated with handling solids, which can negatively impact the overall performance of the entire plant. By employing fluidized bed technology, the combustion of biosolids becomes more efficient, resulting in reduced fuel usage and enhanced energy efficiency. The new facility will be more reliable, leading to reduced downtime and increased operational stability.

The implementation of fluidized bed technology brings about an overall reduction in emissions of all contaminants, ensuring a cleaner and more environmentally friendly operation. Additionally, it eliminates the risk of emitting unscrubbed flue gas (spill), thereby mitigating potential hazards. Another benefit is that the utilization of fluidized bed technology will eliminate the need for the existing stack, allowing for potential removal in the future, offering additional operational flexibility and cost-saving opportunities.

It is important to note that fluidized bed incineration technology is recognized as state-of-the-art for efficient biosolids management and is successfully employed in wastewater treatment plants across Canada, the United States, and Europe. Staff have reviewed lessons learned from Dufferin Creek and Peel Region.

Q: Is the flow increasing?

Anthony Pigaidoulis stated that the flow rate can be misleading due to increased water conservation efforts and the plant has noticed an increase in the strength of the incoming wastewater over time, while flow rates are stable at just less than 80% of the rated capacity.

Q: Does City Planning take the infrastructure capacity into consideration?

Tracy Manolakakis stated that the City's Official Plan sets out growth and development requirements. All development applications are reviewed by the City to be in accordance with requirements for ensuring there is capacity in the system.

7. Other Business (8:15 p.m.)

There was no other business discussed.

8. Adjourn (8:30 p.m.)

Next Meeting: October 2023

Attendees

Residents:

Frank Moir (NLC Co-Chair)

Kathy Rowe

Don York

Victoria Schei

Per Inge Schei

Barbara McElgunn

Staff:

Martin Shigeishi, Plant Manager, HCTP

Anthony Pigaidoulis, Plant Manager (Acting), HCTP

Rob Deobald, Senior Engineer

Tracy Manolakakis, Public Consultation Unit

Amanda Ratych, Public Consultation Unit

Rumaanah Unia, Public Consultation Unit

Daniella Marchese, Councillor McKelvie's Office