

Water and Waste Eaux et déchets

July 26, 2021

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Manitoba Conservation and Climate Environmental Stewardship Division Environmental Approvals Branch 1007 Century Street Winnipeg, MB R3H 0W4

Attention: Laura Pyles, A/Director

RE: INTERIM PHOSPHOROUS REMOVAL QUARTERLY REPORT FOR APRIL, MAY, JUNE 2021

The City of Winnipeg is submitting a Quarterly Report for the periods of April, May, June (second Quarter) of 2021 in accordance with the conditional approval of its Notice of Alteration for the North End Sewage Treatment Plant (NEWPCC).

<u>April</u>

In April the City's consultant, AECOM, reviewed and analyzed data and laboratory results collected during the spring to estimate the impacts of wet weather flow on interim phosphorous removal.

The City also initiated a project for the design and construction of Interim Phosphorous Removal equipment at the NEWPCC. This included identifying working group members from the City's operations, maintenance, and engineering staff.

On April 30, 2021 the City submitted a Notice of Alteration for NEWPCC Interim Phosphorous Removal to the Province, as requested by the Province.

<u>May</u>

In May AECOM submitted a draft report on maximum month flows for City review and comment.

The City also received conditional approval of its Notice of Alteration.

The City continued its work in developing procurement documents for the design and construction of Interim Phosphorous Removal.

<u>June</u>

In June the report on maximum month flows was finalized and submitted to the Province.

The City also started drafting a request for proposal (RFP) for the design and construction of Interim Phosphorous Removal.

Below is the schedule for Interim Phosphorous Removal, current to the end of June 2021.



Table 1. Schedule of Interim Phosphorous Removal

| Deliverable | Description | Contractual Dates | % Previously Reported | % Currently Complete | Originally Projected Date | Revised or Completed Date | Work Remaining |
|--|--|--|-----------------------------|-------------------------|------------------------------|---------------------------------|--|
| Consultant RFP | Draft, review, post for tender | N/A | | 50% | July 2021 | | Project tender documents to be finalized prior to posting |
| | Evaluation, Admin Report, Approvals, Award | N/A | | 0% | Q3 – 2021 | | |
| Preliminary Design | PD plus reviews and approval by WWD | To be confirmed when contract awarded | | 0% | Q1 – 2022 | | |
| Detailed Design | DD plus reviews and approval by WWD | To be confirmed when contract awarded | | 0% | Q2 – 2022 | | |
| Construction Tender | Draft, review, post for tender | To be confirmed when contract awarded | | 0% | Q2 – 2022 | | |
| | Tender posting period | | | 0% | Q2 – 2022 | | |
| | Award Recommendation, Admin Report, Approvals, Award | | | 0% | Q2 – 2022 | | |
| Construction and Commissioning | Substantial Performance | To be confirmed when contract awarded | | 0% | Q2 – 2023 | | |
| | Total Performance | | | 0% | Q3 – 2023 | | |
| | Warranty Period | | | 0% | Q4 – 2024 | | |
| Full Scale Testing and Implementation | Process review, dosing estimates, trouble shooting, optimization | To be confirmed when contract awarded | | 0% | Q4 – 2024 | | |
| Closeout | Certificate of Acceptance | To be confirmed when contract awarded | | 0% | Q4 – 2024 | | |

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Phosphorous Optimization in Sequencing Batch Reactors

The NEWPCC Operators have begun to experiment with increased chemical dosing in the Sequencing Batch Reactors in May and June. Digester cleaning efforts, which had been postponed from 2020 due to COVID, have limited the amount of chemical that could be added to the system. Table 2 shows the results of the increased dosing so far. The Sequencing Batch Reactors continue to exceed phosphorous removal requirements specified in the NEWPCC licence.

Table 2. Results of increased ferric chloride dosing in Sequencing Batch Reactors

| Year (May/June period) | 2019 | 2020 | 2021 |
|-------------------------|------|------|------|
| TP load (kg/d) | 50.4 | 45.8 | 43.0 |
| TP concentration (mg/L) | 24.5 | 19.4 | 18.6 |

Should you have any questions on this report, please contact me at 204-986-5210 or by email at <u>cwiebe@winnipeg.ca</u>.

Sincerely,

Cynthia Wiebe, P. Eng., CAMP (original as signed)

CW/dr

c: Eshetu Beshada, P. Eng., Manitoba Conservation and Climate (email) Yvonne Hawryliuk, MSc, Manitoba Conservation and Climate (email) M.L. Geer, CPA, CA, Water and Waste Department (email) R. Grosselle, Water and Waste Department (email) C. Javra, P. Eng., Water and Waste Department (email) M. Paetkau, P. Eng., Water and Waste Department (email)