



Manitoba Environment and Climate  
Environmental Stewardship Division  
Environmental Approvals Branch  
Box 36, 14 Fultz Blvd  
Winnipeg, MB R3Y 0L6

July 28, 2023  
Client File No.: 1069.10  
Our File No.: S-926, EMS  
020-17-08-11-00  
020-17-08-11-0N

Attention: Agnes Wittmann, Director

**RE: QUARTERLY PROGRESS REPORT FOR SEWPCC BIOLOGICAL NUTRIENT REMOVAL  
AND UPGRADE PROJECT: APRIL 1 – JUNE 30, 2023**

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The City of Winnipeg (City) is pleased to submit the 2023 Quarter 2 Progress Report for the South End Sewage Treatment Plant (SEWPCC) Biological Nutrient Removal and Upgrade Project operating under Environmental Act Licence No. 2716 RR as required by Manitoba Conservation and Climate Notice of Alteration dated April 14, 2022. The work conducted on key areas of the upgrade project for the period of April 1 to June 30, 2023 is summarized in this report.

**Area S: Secondary Clarifiers (SC) 1 & 2**

Rehabilitation and demonstration testing completed with preparation for hand over in July 2023.

**Area G: Grit and Screening Building**

The work in Area G remains at 97% complete. Ongoing automation deficiencies and document close out are being completed. Hand over to the City is expected in Q3 2023.

**Area G: Raw Sewage Pump #2**

Hand over packages are being prepared with final deficiencies being remediated in preparation for hand over in Q3 2023.

**Area K: High Rate Clarification (HRC) System**

The Contractor has completed functional and performance testing with preparation for integrated wet testing to commence in Q3 2023 and hand over expected late Q3 to Q4 2023.

**Area C: Chemical/Electrical Building**

All documents were submitted and the area was handed over to the City for operation.

**Area R: Biological Nutrient Removal (BNR)**

The Contractor is finalizing hand over packages with expected hand over in late Q3 2023.

**Area U: UV Upgrades**

The UV upgrades have been completed. The UV system can treat up to 225 MLD. The Contractor is working on automation deficiencies and preparing hand over packages.

### Areas D & T: HPO Tank Conversion to Fermenters and Biofilter

Work on the HPO Tank conversion to fermenters continued with final cleaning and concrete restoration of tanks. The completion date for commissioning and achieving full biological stability ranges from Q4 2023 to Q2 2024.

### Key Project Risks

Additional oversight and assistance by the project team continues with the contractor. This increased level of effort is required to ensure all works are completed, and priority focus on critical path items remain.

### Performance Updates

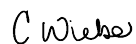
**The Total Phosphorus limit of 1.0 mg/L and Total Nitrogen limit of 15 mg/L in the final effluent are being met under normal flow conditions.**

With the SEWPCC plant converted to a BNR system, it allowed for the introduction of ferric chloride for chemical trimming of all primary effluent. This, along with the increased biological growth in the BNR tanks, has allowed the City to achieve final effluent concentrations below 1 mg/L TP and 15 mg/L TN. Laboratory results can be found on the City's website at [winnipeg.ca/wwcompliance](http://winnipeg.ca/wwcompliance).

The City continues to utilize the measures within the contract to move the contractor toward project completion in order to meet the licence requirements.

Should you have any questions on the SEWPCC Biological Nutrient Removal and Upgrade Project, please contact Colin Javra at 204-986-4480 or by email at [cjavra@winnipeg.ca](mailto:cjavra@winnipeg.ca).

Sincerely,

A handwritten signature in black ink that reads "C Wiebe".

Cynthia Wiebe, P. Eng., CAMP  
Manager of Engineering Services

### ATTACHMENT: Appendix A – Table 1

CJ/jkm

- c: Y. Hawryliuk, MSc, Environment and Climate (email)
- S. Burland Ross, M. Eng., P.Eng., Environment and Climate (email)
- N. Suresh, P. Eng., Environment and Climate (email)
- T. W. Shanks, M. Eng., P. Eng., Water and Waste Department (email)
- C. Carroll, P. Eng., Water and Waste Department (email)
- C. Javra, P. Eng., Water and Waste Department (email)
- R. Dewitt, P. Eng., Water and Waste Department (email)

**Table 1: SEWPCC Contract 4 Schedule Milestone Dates**

Area	Contract Dates	% Complete				Expected Completion	Work Remaining
		Mar	April	May	June		
Secondary Clarifiers 1 & 2	March 20, 2019	98%	99%	99%	99%	<del>Q2-2023</del> Q3 2023	Preparation for hand over in July 2023
Secondary Clarifiers 4 & 5 Demonstration Test	July 30, 2019	100%				Complete	Final close out is tied to the plant total performance
Grit and Screening Building (Area G) Demonstration Test	August 18, 2019	97%	97%	97%	97%	<del>Q2-2023</del> Q3 2023	Final testing for preparation of handover
Raw Sewage Pump #2, Demonstration Test	March 20, 2021	95%	98%	99%	99%	Q3 2023	Preparing handover packages
High Rate Clarification System, Demonstration Test	April 6, 2020	94%	94%	95%	96%	Q3 to Q4 2023	Preparation for integrated wet testing
Chemical/Electrical Building Testing	April 6, 2020	99%	99%	99%	100%	Complete	Final close out is tied to plant total performance
BNR Demonstration Test	August 10, 2020	99%	99%	99%	99%	<del>Q2-2023</del> Q3 2023	Outstanding manuals and test reports require submittal prior to hand over
HPO Tank conversion to Fermenters and Biofilter	July 18, 2021	55%	60%	65%	67%	<del>Q3-2023</del> Q4 2023 to Q2 2024	Cleaning, concrete restoration and process conversion works ongoing; testing and commissioning
Substantial Performance	August 29, 2021	82%	83%	84%	85%	<del>Q3-2023</del> Q4 2023	