



Environment and Climate Change  
Environmental Stewardship Division  
Environmental Approvals Branch  
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January 30, 2024  
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: OCTOBER 1 – DECEMBER 31, 2023**

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This report summarizes progress on the South End Sewage Treatment Plant (SEWPCC) upgrades, operating under Environmental Act Licence No. 2716 RR, from October 1 to December 31, 2023.

**Area G: Grit and Screening Building**

All new and upgraded equipment is currently in service and operational; the system is performing as designed. Outstanding deficiencies and documentation are being worked on with hand over to the City anticipated in Q1 2024.

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

Demonstration testing of the HRC system has been completed. The Project Team is working on optimizing the HRC system performance in anticipation of 2024 wet weather flows. The Contractor is addressing outstanding deficiencies.

**Area C: Chemical/Electrical Building**

Area has been handed over to the City. Chemical skid testing to be completed in conjunction with the commissioning of the fermenters. Final testing of the electrical portion of the building will be completed once the entire plant load is connected to the system.

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

Area has been handed over to the City.

**Area U: UV Upgrades**

The Contractor continues to work on the control system automation and final demonstration testing of the system is anticipated to be completed Q1 2024.

**Areas D: HPO Tank Conversion to Fermenters**

Concrete refurbishment and application of chemical resistant coating is ongoing and was anticipated to be completed Q1 2024. Delamination of coatings in some areas has been observed. The extent and cause of the delamination is under investigation and the impact on the schedule is being evaluated. Installation of electrical and mechanical process equipment is being conducted in parallel. Commissioning was expected to be completed by Q2 2024, but will be re-evaluated once a plan to address the delamination issue is determined.

### **Areas T: Biofilter Odour Control**

Construction works continue. Commissioning was anticipated to commence Q1 2024 but the delamination of concrete coatings in some areas has impacted this. Once a plan to address the delamination issue is determined, the commissioning date will be re-evaluated.

### **Key Project Risks**

- Risk (ongoing): Failure of the Contractor to meet critical path items.  
Mitigation: The Project Team continues to work with and provide additional oversight to the Contractor in order to achieve key critical path items. This has resulted in increased level of outputs by the Contractor.
- Risk (ongoing): Final installation fails to meet specified quality requirements.  
Mitigation: Project Team continues to work with the Contractor on effective quality management systems in order to complete the final works within specifications.
- Risk: Delamination in certain areas of the fermenters and odour control tanks has been observed.  
Mitigation: This is currently under review.

### **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 me at 204-986-5210 or by email at [cwiebe@winnipeg.ca](mailto:cwiebe@winnipeg.ca).

Sincerely,



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

**ATTACHMENT: Table 1**

RD/dr

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

Area	Contract Dates	% Complete			Expected Completion	Work Remaining
		Oct	Nov	Dec		
Secondary Clarifiers 1 & 2	March 20, 2019				Complete	
Secondary Clarifiers 4 & 5 Demonstration Test	July 30, 2019				Complete	
Grit and Screening Building (Area G) Demonstration Test	August 18, 2019	99%	99%	99%	Q4 2023 Q1 2024	Final documentation
Raw Sewage Pump #2, Demonstration Test	March 20, 2021				Complete	
High Rate Clarification System, Demonstration Test	April 6, 2020	99%	99%	99%	Q4 2023 Q1 to Q2 2024	System performance optimization, minor deficiencies, and final documentation.
Chemical/Electrical Building Testing	April 6, 2020				Complete	
BNR Demonstration Test	August 10, 2020	99%	99%	100%	Complete	
HPO Tank conversion to Fermenters and Biofilter	July 18, 2021	86%	87%	87%	Q2 2024*	Construction works and commissioning, including resolution of delamination issue being encountered.
Substantial Performance	August 29, 2021	91%	91%	91%	Q2 2024*	

- \*To be re-evaluated once a plan to address the delamination issue is determined