

**MARCH 2020 MONTHLY REPORT – SUMMARY TO REACH
SUBSTANTIAL COMPLETION
City of Thompson
Wastewater Treatment Plant Upgrades & Associated Works
MWSB 1265
Startup & Commissioning Phase
Licence No. 3118R**

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1 Milestones Achieved

The following presents a summary of the milestones achieved to date:

- The Contractor achieved Interim Substantial Completion as of February 10, 2020. The City is now responsible for operating the facility with input from the Contractor until completion of the SBR Process Acceptance Testing and award of Substantial Completion.
- The facility trouble-free mechanical testing period was successfully completed in November 2019.
- Cree Road Lift Station is complete, commissioned and in operation.
- Acceptance Testing completed for the Multirake Bar Screen, Grit System, UV Disinfection System, Biofiltration Odour Control System and Sludge Dewatering equipment.

2 Status of Process Development

The City of Thompson's WWTP Operators have taken over operation of the facility with input from the Contractor and will continue to do so until completion of Acceptance Testing and award of Substantial Completion. The Operators are conducting daily testing of effluent to monitor process development. Composite samples of the treated effluent are gathered each day for testing.

As of the end of March the process is showing signs of stabilizing:

- Effluent TSS have remained below 25 mg/L during March.
- Phosphate has increased and is generally between 1-2 mg/L with the exception of a couple of spikes. The 30-day rolling average remains above 1.0 mg/L.
- UVT has been above 55 for the month of March.
- Effluent pH has tested between 6.3 to 7.6 throughout March.
- Effluent temperatures have varied slightly through March but were generally in the range of 7-8°C. SBR Basin temperatures have remained steady around 9.5°C. Raw wastewater influent temperatures have ranged from 3-9°C over this reporting period.
- Ammonia has varied from 6 mg/L up to 14.7 mg/L and have generally been between 8 - 10 mg/L. The nitrification process does not appear to have improved significantly during March.

3 Remaining Work to Achieve Substantial Completion

SBR Acceptance Testing: The biological process has generally stabilized with the exception of Ammonia removal through nitrification. Acceptance testing of the SBR process and Aerobic Digesters are contingent on the process demonstrating that all effluent quality parameters of the licence are being met. At this time this is not expected to occur until spring of 2020. The Contractor indicates their intended plan is to allow the process to continue developing naturally through the spring melt period. Once influent temperatures improve, they will assess whether adding nitrifying bacteria culture will be beneficial to increase nitrification.

Training: Operator training for the new WWTP facility has been ongoing since fall of 2019 and the Operators have received the required training through the project to take on operation of the facility. To date, the Operators have received training on the SBR Process Operation and equipment, grit system, multirake bar screen, UV disinfection equipment, sludge dewatering equipment, lab testing, WWTP SCADA system, building HVAC and building ancillary systems. Follow up/refresher training on the SBR Process and WWTP SCADA system will be provided in an ongoing fashion throughout 2020. Only one training session for the maintenance of the SBR aeration blowers remains outstanding before the training requirements for award of Substantial Completion are met.

Deficiencies: The Contractor is working towards completion of deficiencies to close out of the Building Permit, obtain the Building Occupancy Permit and meet the requirements of the Builders Lien Act to achieve Substantial Completion. Stantec completed a review of completed deficiencies March 9th & 10th. Approximately 205 deficiencies were found to be open/incomplete at the time of the review. The Contractor is working on addressing deficiencies and submitting details of completed work for review.