



Manitoba Environment and Climate
Environmental Stewardship Division
Environmental Approvals Branch
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April 21, 2023
Client File No.: 1071.10
Our File No.: S-972, S-1146, EMS
020-17-08-11-00
020-17-08-11-0N

Attention: Siobhan Burland Ross, Acting Director

**RE: QUARTERLY PROGRESS REPORT FOR NEWPCC UPGRADE:
JANUARY 1 – MARCH 31, 2023**

The City of Winnipeg (City) is pleased to submit the 2023 Quarter 1 Progress Report for the North End Sewage Treatment Plant (NEWPCC) operating under Environmental Act Licence No. 2684 RRR as required by Manitoba Conservation and Climate on May 28, 2021 and the Investing in Canada Infrastructure Program (ICIP) GIS-EQ-1087 letter dated June 2, 2021. The work conducted on key areas of the upgrade project for the period of January 1 to March 31, 2023 are summarized in this report.

The following key elements were advanced or completed during this period:

Power Supply

- Total Performance of the Power Supply Upgrade project will be achieved when closeout documents, such as O&M manuals, have been submitted and accepted by the City. The Design Build (DB) contractor is making progress on the submission of these documents.
- Liquidated damages are being applied to the DB contract until Total Performance is achieved.

Headworks

- Continued submission of various 60%, 90% and Issued for Construction (IFC) Design Submission packages
- Secant pile and driven pile installation in all areas are complete
- H2 (Pump Station) shaft is excavated to tunneling elevation. Excavation of H1 shaft is at approximately 11.5 metres deep (3.3 metres remain to reach tunneling elevation). Excavation of Y5 shaft will begin when the ring beam is complete
- Preparation for tunneling has begun. Subcontractor is installing the headwall and thrust block for the tunnel boring machine (TBM) at the Raw Sewage Pump Station (RSPS) – H2 Interior Shaft. Tunneling is expected to begin in April
- Grit effluent slabs, chambers and chutes at the Grit Building have been poured. Grit influent channel 1 and 2 is underway

- The overflow channel slab at the Fine Screening area is complete
- Subbase for main slab, formwork for grade beams, and drainage pipework including stormwater piping at the Solids Handling and Mechanical Rooms is underway
- Construction of precast walls and roofing panels at the Standby Generator Facility is complete
- Disposal of impacted soil to licenced facilities as approved by the Province continues as new contaminated areas are excavated. Reusable soil is being stored on site for future use
- Construction of dry storage area is complete
- Heritage Resource Assessment pile pre-drill monitoring is complete. Planning for the next phase of the heritage investigation with the Province's Heritage Resource Branch is underway

Biosolids

- Preparation of Request for Qualification and Request for Proposal documents
- The City will be obtaining a 2023 construction cost estimate to reflect current market conditions
- The results from the environmental assessment, completed in the fall of 2022, indicated additional areas of impacted soil. Further environmental delineation is ongoing
- Planning for the next phase of the heritage investigation with the Province's Heritage Resource Branch is ongoing
- The City continues to advance the detailed design drawings for a subsurface Canadian Pacific Railway (CPR) crossing between NEWPCC's Parcel A to Parcel B. Discussions between the City and CPR regarding the surface crossings are ongoing

Nutrient Removal

- On January 26, 2023 Council approved a new capital project for NEWPCC Upgrade: Nutrient Removal Facilities. Funds in the amount of \$3 million have been approved for an enhanced preliminary design
- Review of scope and defining the enhanced preliminary design (EPD) requirements is underway

Headworks Schedule Change

The contractor is currently tracking behind schedule. The graphical representation in Table 2: Earned Value compares the performance measurement baseline (baseline schedule of how they intended to do the work) to the actual schedule (work actually complete). It shows the contractor planned to be 44.4% complete by the end of February 2023, but is only 29.9% complete. The main

issues affecting the schedule are the installation of the secant piles and the lagging design submittals which is slowing construction.

Should you have any questions, please contact Colin Javra at 204-986-4480 or by email at cjavra@winnipeg.ca.

Sincerely,

A handwritten signature in cursive script that reads 'C Wiebe'.

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

ATTACHMENT: Appendix A - Tables & Figures

CJ/jkm

- c: Y. Hawryliuk, MSc, Environment and Climate (email)
- E. Beshada, Ph. D, P.Eng., Environment and Climate (email)
- N. Suresh, P.Eng., Environment and Climate (email)
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APPENDIX A - Table 1: NEWPCC Upgrade Project Milestones - Headworks Facilities

Task Description	% Complete				Original Targeted Completion Date	Revised Targeted Completion Date	Actual Completion Dates
	Dec	Jan	Feb	Mar**			
Procurement and Contract Award	100%	100%	100%	100%	Jun 30, 2021		Jun 11, 2021
DB Mobilization Complete	100%	100%	100%	100%	Dec 31, 2021		Dec 15, 2021
30% Design	100%	100%	100%	100%	Dec 14, 2021		Dec 14, 2021
60% Design	67%	67%	67%	85%	Sep 30, 2022	Mar 31, 2023 Jun 13, 2023	
90% Design	6%	6%	13%	33%	Jan 23, 2023	Jun 20, 2023 Jul 19, 2023	
IFC Design	2%	2%	4%	6%	Apr 17, 2023	Sep 29, 2023 Oct 05, 2023	
Driven Piles (All Areas)	75%	89%	91%	100%	Aug 19, 2022		Mar 14, 2023
Secant Piles (H2, H1, Y5)	82%	92%	100%	100%	Sep 29, 2022		Jan 13, 2023
Microtunneling (H1 to H2 and H1 to Y5)	0%	0%	0%	1%	Dec 20, 2022	Nov 07, 2023	
Generator Building, Structural and External Finishes	0%	0%	0%	0%	Mar 14, 2023	Sep 28, 2023 Sep 29, 2023	
Standby Generators, Install	0%	0%	0%	0%	Aug 03, 2023	Mar 04, 2024 Mar 05, 2024	
Raw Sewage Pumping Station (H2), Concrete	0%	0%	0%	0%	Aug 07, 2023	Nov 08, 2023 Nov 09, 2023	

APPENDIX A - Table 1: NEWPCC Upgrade Project Milestones - Headworks Facilities continued...

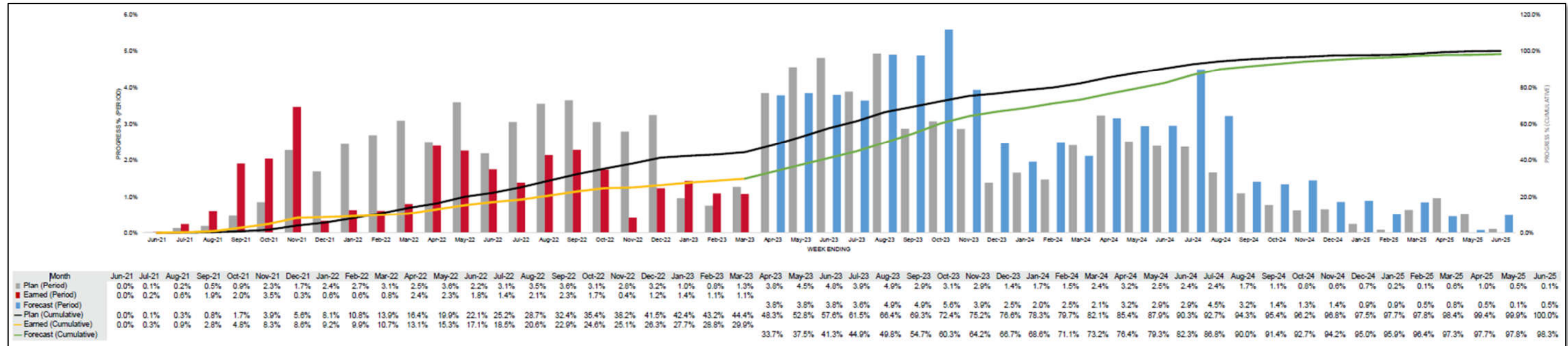
Task Description	% Complete				Original Targeted Completion Date	Revised Targeted Completion Date	Actual Completion Dates
	Dec	Jan	Feb	Mar**			
H1 Chamber	0%	0%	0%	0%	Sep 5, 2023	Jul 22, 2024	
Standby Generator Facility and Fuel Storage System, Complete	0%	0%	0%	0%	Sep 15, 2023	Apr 16, 2024 Apr 17, 2024	
Grit Removal System, Install	0%	0%	0%	0%	Sep 18, 2023	Jan 10, 2024	
Y5 Chamber	0%	0%	0%	0%	Dec 07, 2023	Oct 23, 2024	
Raw Sewage Pumps, Install	0%	0%	0%	0%	Jan 23, 2024	Apr 25, 2024	
Fine Screens, Install	0%	0%	0%	0%	Mar 26, 2024	Jun 13, 2024	
Headworks Building, Structural and External Finishes	0%	0%	0%	0%	Jun 07, 2024	Jun 14, 2024	
Odour Control System, Install	0%	0%	0%	0%	Jul 08, 2024	Jul 09, 2024	
Civil Works and Landscaping	0%	0%	0%	0%	Jul 26, 2024	Apr 11, 2025	
Headworks Building, Complete	0%	0%	0%	0%	Nov 05, 2024	Feb 04, 2025	

Commissioning	0%	0%	0%	0%	Mar 31, 2025	May 11, 2025	
Decommissioning - Original Equipment	0%	0%	0%	0%	May 14, 2025	Jul 28, 2025	
*Substantial Completion	0%	0%	0%	0%	June 30, 2025		

*Substantial Completion: This is the only milestone that is contractual and cannot slide without penalty.

**Data source: Red River Solution's Monthly Report.

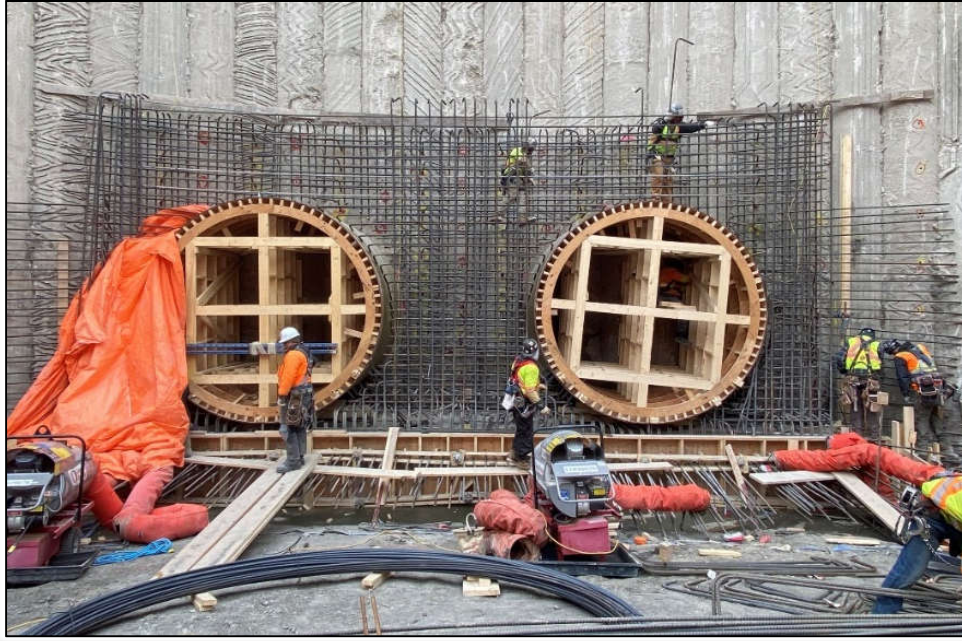
APPENDIX A - Table 2: Earned Value



APPENDIX A - Table 3: NEWPCC Upgrade Project Milestones – Biosolids Facilities

Task Description	% Complete				Original Targeted Completion Date	Revised Targeted Completion Date	Actual Completion Dates
	Dec	Jan	Feb	Mar			
Updated Preliminary Design and Procurement Strategy	100%	100%	100%	100%	Dec 31, 2021	Apr 1, 2022	Apr 14, 2022 Council Approved Jul 21, 2022
Post RFQ	70%	75%	80%	85%	Mar 31, 2023	Apr 30, 2023	
2023 Cost Estimate	N/A	N/A	0%	25%	May 30, 2023		
Preselected Proponents Named	0%	0%	0%	0%	Aug 31, 2023	Sep 30, 2023	
Post RFP	60%	62%	64%	66%	Oct 31, 2023		
Contract Award	0%	0%	0%	0%	Dec 31, 2023	Nov 30, 2024	
Substantial Completion	0%	0%	0%	0%	Sep 30, 2029	Dec 31, 2030	

APPENDIX A - Figures 1 & 2: Preparing for Tunnel Boring Machine at the Raw Sewage Pump Station – H2 Interior Shaft



APPENDIX A - Figure 3: Grit Building



APPENDIX A - Figure 4: Standby Generator Building

