



Manitoba Environment and Climate
Environmental Stewardship Division
Environmental Approvals Branch
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July 28, 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: Agnes Wittmann, Director

**RE: QUARTERLY PROGRESS REPORT FOR NEWPCC UPGRADE:
APRIL 1 – JUNE 30, 2023**

The City of Winnipeg (City) is pleased to submit the 2023 Quarter 2 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 April 1 to June 30, 2023 is summarized in this report.

The following key elements were advanced or completed during this period (see Appendix A – Figure 1 for NEWPCC Headworks site layout):

Power Supply

- Total Performance of the Power Supply Upgrade project was achieved

Headworks

- Continued submission of various 60%, 90% and Issued for Construction (IFC) Design Submission packages
- Ring beam construction, backfilling, and temporary railings at Y5 Chamber are complete
- Headwall and thrust block for the tunnel boring machine (TBM) at the Raw Sewage Pump Station (RSPS) – H2 Interior Shaft is complete
 - Tunnel 1 is complete, Tunnel 2 is approximately 41% complete and tunneling work has been paused due to the failure of the Northwest Interceptor on June 7, 2023
 - Dewatering work, recovery of materials and equipment, and clean up is progressing for both H2 and H1 shafts
 - The City and RRS continue to work on a solution to repair the Northwest Interceptor and evaluate the schedule impact
- Grit influent slabs and north grit chambers at the Grit Building are complete. Curing of concrete, and rebar and formwork for south grit chambers is underway

- Concrete pour for channel walls, pile caps, backfilling, damp proofing, concrete repair/patching, and hydrostatic testing for the east overflow channel walls at the Fine Screening area are complete
 - Void formwork, false work, and transition wall works (between RSPS and Screen) are underway
- Grade beams at the Solids Handling and Mechanical Rooms are complete. Insulation work, and void formwork are underway
- Grade beams, steel reinforcement (rebar work), electrical, drainage piping, and floor slab at the Main Control Building are complete
- Air vapour barrier installation, and dismantling of the stair tower at the Standby Generator Facility are complete Sealing of roof gaps, and insulation work are underway
- Formwork for perimeter curb of the fuel storage pad is complete
- Excavation, pile cutting, caisson pile installation, pile caps, and void formwork at the east side of the Y4 Connection Gallery are complete. Rebar work is underway
- 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
- The Provincial Heritage Resource Branch's investigation in the east Y4 tunnel area is complete. Work near the future outfall chamber is underway

Headworks Schedule

The contractor continues to track behind schedule based on key milestone; however, the substantial performance date has not changed. 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 57.6% complete by the end of June 2023, but is only 35.6% complete.

The failure of the Northwest Interceptor is expected to impact the substantial performance date. The extent of this is currently unknown and will be determined in the coming months.

Biosolids

- The City is waiting for Council approval on July 13, 2023 to use a Progressive Design Build (PDB) procurement model. In anticipation of the PDB model, the City prepared various procurement documents
- Additional impacted soils were delineated and a traffic study was completed in the spring of 2023. The results from both studies are pending
- Planning with the Province's Heritage Resource Branch for the next phases of the heritage investigations continued. The next field investigations are planned in July 2023
- Detailed design for early scopes of work such as land drainage, water main extensions, utilidor construction, and rail surface crossings continued. The City is preparing to submit the

detailed design drawings for a subsurface Canadian Pacific Railway (CPR) crossing between NEWPCC's Parcel A to Parcel B in July 2023

- Negotiations with Ostara and Cambi continued

Nutrient Removal

- A project start up meeting was held on May 29, 2023 to define the scope of work and initiate the enhanced preliminary design (EPD). A draft of the EPD is anticipated in Q4 2023

NEWPCC Upgrade Plan

- The City, with assistance from our strategic partner, is in the procurement phase of engaging a consultant for the constructability review. The work is expected to begin late summer
- The City continues to participate with other stakeholders on the Task Force on City of Winnipeg Waste Water Infrastructure and will be working with the Province to identify funding strategies to complete the NEWPCC Upgrades

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

Sincerely,



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

ATTACHMENT: Appendix A - Tables & Figures

CJ/jkm

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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
	Mar	Apr	May	Jun**			
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	85%	85%	92%	92%	Sep 30, 2022	Jun 13, 2023 Jul 24, 2023	
90% Design	33%	50%	50%	50%	Jan 23, 2023	Jul 19, 2023 Sep 14, 2023	
IFC Design	6%	7%	10%	14%	Apr 17, 2023	Oct 05, 2023 Nov 21, 2023	
Driven Piles (All Areas)	100%	100%	100%	100%	Aug 19, 2022		Mar 14, 2023
Secant Piles (H2, H1, Y5)	100%	100%	100%	100%	Sep 29, 2022		Jan 13, 2023
Microtunneling (H1 to H2 and H1 to Y5)	1%	2%	3%	25%	Dec 20, 2022	Nov 07, 2023	
Generator Building, Structural and External Finishes	0%	0%	0%	0%	Mar 14, 2023	Sep 29, 2023	
Standby Generators, Install	0%	0%	0%	0%	Aug 03, 2023	Mar 05, 2024	
Raw Sewage Pumping Station (H2), Concrete	0%	0%	0%	0%	Aug 07, 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
	Mar	Apr	May	Jun**			
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 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	

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
	Mar	Apr	May	Jun**			
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.

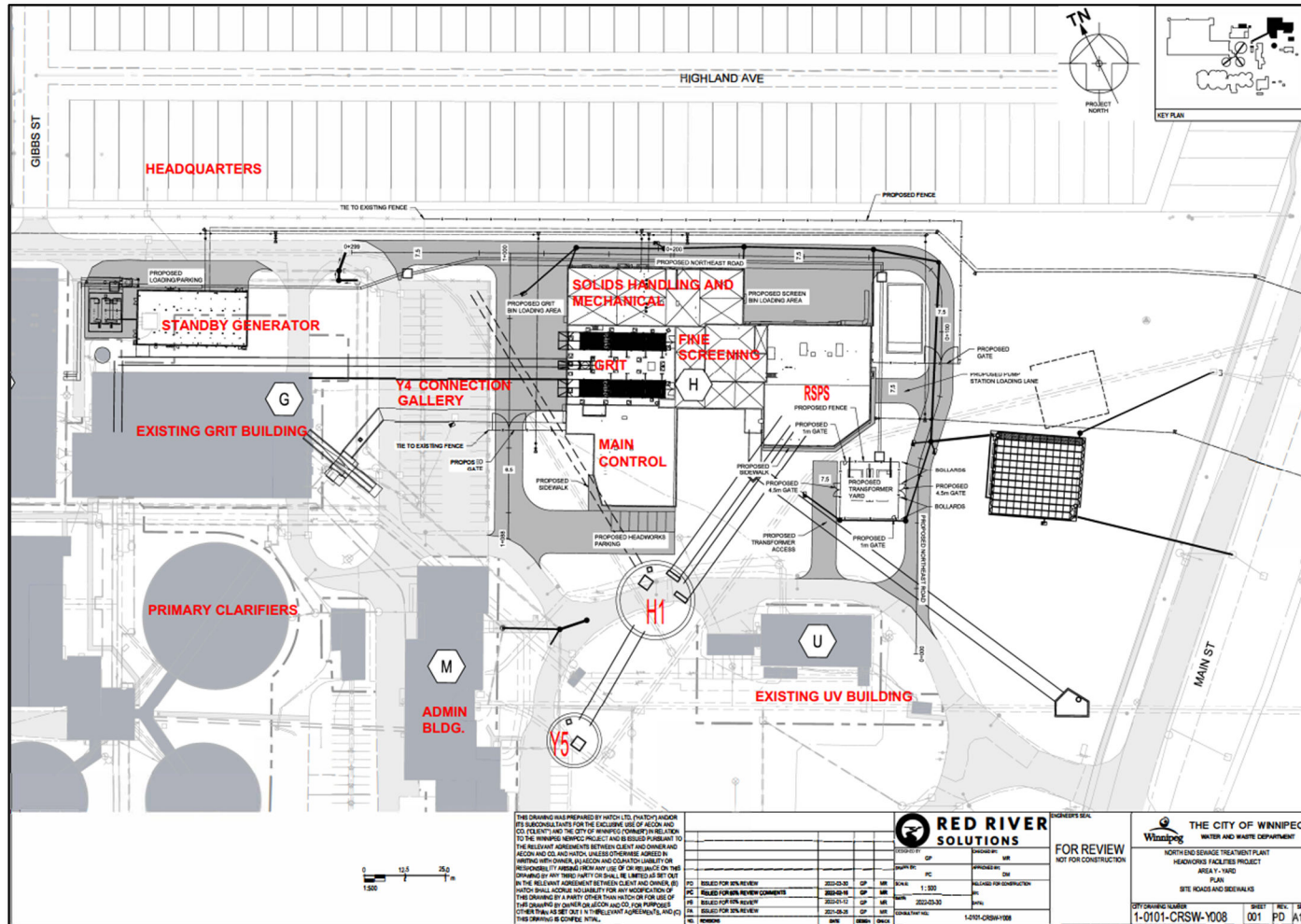
APPENDIX A - Table 3: NEWPCC Upgrade Project Milestones – Biosolids Facilities

Task Description	% Complete				Original Targeted Completion Date	Revised Targeted Completion Date	Actual Completion Dates
	Mar	Apr	May	Jun			
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 RFP Step 1 (Following Council Approval for a PDB procurement strategy)	85%	85%	90%	95%	July 2023		
Shortlist Proponents	0%	0%	0%	0%	Sept 30, 2023		
Post RFP Step 2	66%	68%	70%	75%	Oct 31, 2023		
Contract Award of Development Phase Agreement	N/A	N/A	N/A	0%	June 30, 2024		
Contract Award of Design Build Agreement	0%	0%	0%	0%	TBD		
Substantial Completion	0%	0%	0%	0%	TBD following DBA – by December 31, 2030		

APPENDIX A - Table 4: NEWPCC Upgrade Project Milestones – Nutrient Removal Facilities

Task Description	% Complete				Original Targeted Completion Date	Revised Targeted Completion Date	Actual Completion Dates
	Mar	Apr	May	Jun			
Updated Preliminary Design	0%	0%	0%	0%	TBD		
Procurement and Contract Award	0%	0%	0%	0%	TBD		
Substantial Completion	0%	0%	0%	0%	TBD		

APPENDIX A – Figure 1: Site Plan for NEWPCC Headworks Facilities Project



APPENDIX A - Figures 2 & 3: Tunnel 1 complete at the Raw Sewage Pump Station – H2 Interior Shaft to H1 Chamber and Tunnel 2 has commenced



APPENDIX A - Figure 4: Y4 Connection Gallery (east side)



APPENDIX A - Figure 5: Standby Generator Building



APPENDIX A - Figure 6: Overview of site (left side: Main Control Building, right side: Grit Building, north side: Y4 Connection Gallery)

