



April 29, 2022

Client File No.: 1071.1
Our File Nos.: S-972, S-1146 EMS
020-17-08-11-00
020-17-08-11-0N

Environment, Climate and Parks
Environmental Stewardship Division
Environmental Approvals Branch
1007 Century Street
Winnipeg, MB R3H 0W4

Attention: James Capotosto, Director

RE: NEWPCC Upgrade Projects Report No.4 – Q1 Quarterly Report for January 1 to March 31, 2022 – Environment Act Licence No. 2684 RRR and Investing in Canada Infrastructure Program GIS-EQ-1087

The City of Winnipeg (the City) is submitting the NEWPCC Upgrade Projects Report No.4 for Q1 Quarterly Report for the period of January 1 to March 31, 2022. This report is to satisfy conditions identified in the Environmental Act License No. 2684 RRR as required by Manitoba Conservation and Climate on May 28, 2021, and Investing in Canada Infrastructure Program (ICIP) GIS-EQ-1087 letter dated June 2, 2021. The work tasks required to complete the NEWPCC Upgrades to meet the Environmental Act License requirements are summarized in this report.

The works to be conducted as part of the NEWPCC upgrades include the Power Supply and Headworks Facilities, Biosolids Facilities, and Nutrient Removal Facilities projects.

Power Supply

- Total Performance of the Power Supply Upgrade Project to 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. The system is operating without issue. The DB contractor has not provided a defined schedule for completion at this time.
- Liquidated damages are being applied to the DB contractor's contract until Total Performance is achieved.

Headworks Facilities

Currently, the contractor is tracking slightly behind schedule during this period, however there is no change in the critical path. Table 1: Tasks and Milestone – Headworks Facilities, shows the planned completion dates for major design and construction tasks. Changes in planned completion dates are not necessarily an indication of a slide in the overall schedule. The Design Builder may make changes (forward or backward) to any and all task completion dates as long as the Substantial Completion Milestone date does not change. The graphical representation (Table 2: Earned Value) compares the performance measurement baseline to the actual schedule performance. The difference between the baseline plan and actuals for this period is a function of the following:

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- Minor changes being made to the engineering deliverables based on the lead times for ordering materials.
- Advanced scope for UV duct bank relocation activities to minimize future interference.
- Unforeseen ground conditions, where grouting requirements were greater than expected. To minimize the impact, additional grouting equipment and staff were brought to site. In addition, grouting / secant pile installation will occur concurrently and secant pile/driven pile installation will occur concurrently to mitigate any delays to the critical path.

The schedule is currently progressing as planned with no significant variation in Substantial Completion.

The following are key work elements advanced or completed by Red River Solutions during this period:

- Continued work on and submittal of various 60% Design Submission packages.
- Finalization of the Issued For Construction (IFC) design for piling and secant pile installation for the identified Early Works Packages.
- Continued grit building footprint excavation.
- Completion of mobilization of equipment for secant pile installation.
- Initiated procurement of driven piles.
- Continued rock grouting at the Raw Sewage Pump Station (H2 shaft).
- Continued daylighting of the interceptors at various locations and monitoring of levels in the interceptors.
- Identification of heavy metal impacted soil on site. A remedial action plan for soil disposal at a licenced facility has been submitted to the Province for approval.

Biosolids and Nutrient Removal

- The City is working to finalize the procurement strategy for the Biosolids Facility Project.
- AECOM has completed the enhanced preliminary design report. Hanscomb, a third-party firm, has been engaged to provide an independent review for the construction estimate provided by AECOM.
- ICIP funding has been submitted to the Federal Government by the Province.
- A constructability review will be carried out after the Biosolids project is awarded.
- The Nutrient Removal Project currently remains unfunded.
- Schedule of milestones identified in Table 3.



Table 1: Tasks and Critical Milestone for NEWPCC Upgrade Projects – Headworks Facilities

Task Description	% Complete Q4 Report	% Complete January Report	% Complete February Report	% Complete March Report	Original Targeted Completion Date	Revised Targeted Completion Date	Actual Completion Dates
Procurement and Contract Award	100%	100%	100%	100%	June 30, 2021		June 11, 2021
DB Mobilization Complete	100%	100%	100%	100%	December 31, 2021		December 15, 2021
30% Design	N/A	N/A	N/A	100%	December 14, 2021		December 14, 2021
60% Design	N/A	N/A	N/A	30%	September 30, 2022		
90% Design	N/A	N/A	N/A	0%	January 23, 2023		
IFC Design	N/A	N/A	N/A	0%	April 17, 2023		
Driven Piles (All Areas)	N/A	N/A	N/A	N/A	August 19, 2022		
Secant Piles (H2, H1, Y5)	N/A	N/A	N/A	N/A	September 29, 2022		
Microtunneling (H1 to H2 & H1 to Y5)	N/A	N/A	N/A	N/A	December 20, 2022		
Generator Building, Structural & External Finishes	N/A	N/A	N/A	N/A	March 14, 2023		
Standby Generators, Install	N/A	N/A	N/A	N/A	August 3, 2023		
Raw Sewage Pumping Station (H2), Concrete	N/A	N/A	N/A	N/A	August 7, 2023		
H1 Chamber	N/A	N/A	N/A	N/A	September 5, 2023		
Standby Generator Facility & Fuel Storage System, Complete	N/A	N/A	N/A	N/A	September 15, 2023		
Grit Removal System, Install	N/A	N/A	N/A	N/A	September 18, 2023		
Y5 Chamber	N/A	N/A	N/A	N/A	December 7, 2023		
Raw Sewage Pumps, Install	N/A	N/A	N/A	N/A	January 23, 2024		
Headworks Building, Structural & External Finishes	N/A	N/A	N/A	N/A	June 7, 2024		
Odour Control System, Install	N/A	N/A	N/A	N/A	July 8, 2024		
Civil Works & Landscaping	N/A	N/A	N/A	N/A	July 26, 2024		
Headworks Building, Complete	N/A	N/A	N/A	N/A	November 5, 2024		
Commissioning	0%	0%	0%	0%	March 31, 2025	February 26, 2025	

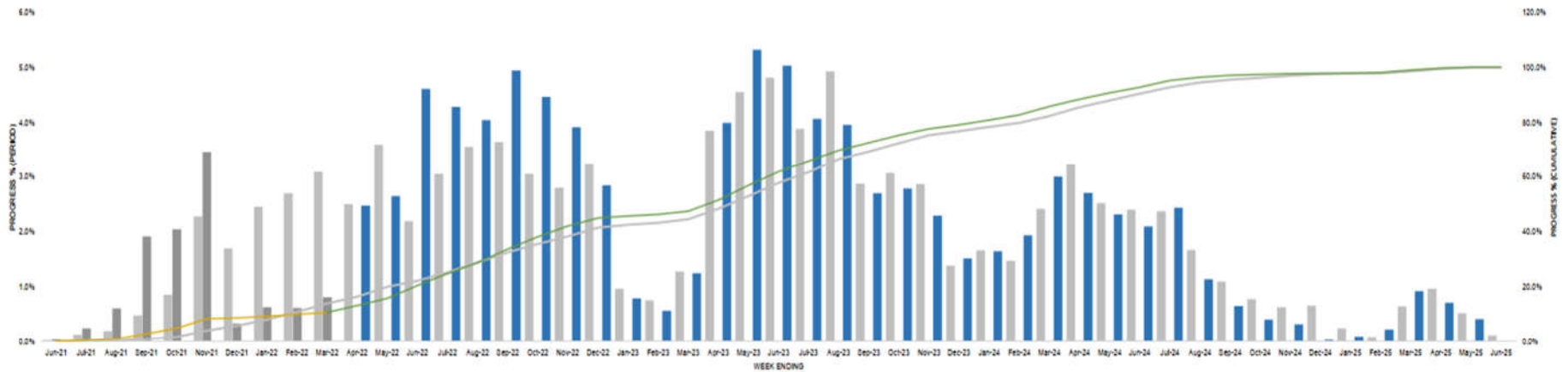


Decommissioning	0%	0%	0%	0%	May 14, 2025		
*Substantial Completion	0%	0%	0%	0%	June 30, 2025	May 22, 2025	

Note: The table has been updated for Headworks Facilities and therefore some tasks and critical milestones will show N/A as we don't have percentages for the previous months.

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

Table 2: Earned Value



Month	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25				
Plan (Period)	0.0%	0.1%	0.2%	0.5%	0.9%	2.3%	1.7%	2.4%	2.7%	3.1%	2.5%	3.0%	2.2%	3.1%	3.5%	3.6%	3.1%	2.8%	3.2%	1.0%	0.8%	1.3%	3.8%	4.5%	4.8%	3.9%	4.9%	2.9%	3.1%	2.9%	1.4%	1.7%	1.5%	2.4%	3.2%	2.5%	2.4%	2.4%	1.7%	1.1%	0.8%	0.6%	0.7%	0.2%	0.1%	0.2%	0.9%	0.7%	0.4%	0.1%			
Earned (Period)	0.0%	0.2%	0.6%	1.9%	2.0%	3.5%	0.3%	0.6%	0.6%	0.8%																																											
Forecast (Period)											2.5%	2.8%	4.8%	4.3%	4.0%	4.9%	4.5%	3.9%	2.8%	0.8%	0.6%	1.2%	4.0%	5.3%	5.0%	4.1%	4.0%	2.7%	2.8%	2.3%	1.5%	1.6%	1.9%	3.0%	2.7%	2.3%	2.1%	2.4%	1.1%	0.8%	0.4%	0.3%	0.0%	0.1%	0.2%	0.1%	0.8%	0.7%	0.4%	0.1%			
Plan (Cumulative)	0.0%	0.1%	0.3%	0.8%	1.7%	3.9%	5.6%	8.1%	10.8%	13.9%	16.4%	19.0%	22.1%	25.2%	28.7%	32.4%	35.4%	38.2%	41.5%	42.4%	43.2%	44.4%	48.3%	52.8%	57.6%	61.5%	66.4%	69.3%	72.4%	75.2%	77.5%	79.0%	80.7%	82.6%	85.6%	88.3%	90.6%	92.7%	95.1%	96.3%	96.9%	97.3%	97.6%	97.7%	97.8%	98.0%	98.9%	99.4%	99.9%	100.0%			
Earned (Cumulative)	0.0%	0.3%	0.9%	2.8%	4.8%	8.3%	8.6%	9.2%	9.9%	10.7%																																											
Forecast (Cumulative)											13.1%	15.8%	20.4%	24.7%	28.7%	33.6%	38.1%	42.0%	44.8%	45.6%	46.2%	47.4%	51.4%	56.7%	61.7%	65.8%	69.8%	72.4%	75.2%	77.5%	79.0%	80.7%	82.6%	85.6%	88.3%	90.6%	92.7%	95.1%	96.3%	96.9%	97.3%	97.6%	97.7%	97.8%	98.0%	98.9%	99.4%	99.8%	100.0%	100.0%	100.0%	100.0%	

Table 3: Tasks and Critical Milestones for NEWPCC Upgrade Projects – Biosolids Facilities & Nutrient Removal Facilities

Deliverable	Description	% Complete Q4 Report	% Complete January Report	% Complete February Report	% Complete March Report	Original Targeted Completion Date	Revised Targeted Completion Date	Actual Completion Dates
Biosolids Facilities	Updated Preliminary Design & Procurement Strategy	85%	85%	87%	95%	December 31, 2021	April 1, 2022	
	Procurement and Contract Award	0%	0%	0%	0%	December 31, 2023		
	Substantial Completion	0%	0%	0%	0%	September 30, 2029	*December 31, 2030	
Nutrient Removal Facilities	Updated Preliminary Design	0%	0%	0%	0%	September 30, 2023		
	Procurement and Contract Award	0%	0%	0%	0%	June 30, 2026		
	Substantial Completion	0%	0%	0%	0%	June 30, 2032		

*Pending funding approvals



Water and Waste
Eaux et déchets

Should you have any questions please contact me at 204-986-4480 or by email at ciavra@winnipeg.ca.

Sincerely,


Colin Javra, P. Eng
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CJ/dr

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Figure 1: Main Site Overview



Figure 2: Excavation of Grit Building



Figure 3: Drilling and Grouting at H2 Area