



Environment and Climate Change
Environmental Stewardship Division
Environmental Approvals Branch
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January 30, 2025
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 UPGRADES
OCTOBER 1 – DECEMBER 31, 2025**

This report summarizes progress on the North End Sewage Treatment Plant (NEWPCC) upgrades, operating under Environmental Act Licence No. 2684 RRR, from October 1 to December 31, 2025.

1. INTERIM CHEMICAL PHOSPHOROUS REMOVAL FACILITIES

Update on items from last report:

- [Figure 1](#) in the Appendix shows the locations of the ferric chloride dosing points.
 - Dosing into Location 3 was increased to 20% of the consultant's recommended dose on October 2, 2025. It was further increased to 22% of the consultant's recommended dose on November 12, 2025.
 - Concurrent with construction of the new waste activated sludge (WAS) pipe, dosing at Location 4 resumed on October 20, 2025 at 8% of the consultant's recommended dose. It was further increased to 10% of the consultant's recommended dose on November 27, 2025.
 - Replacement of the new pipe started November 28, 2025.
 - Dosing at Location 5: Hauled Sludge Line remains offline pending consultant recommendation.
- The average final effluent phosphorous level over the reporting period was 3.8 mg/L, which is down from 4.1 mg/L from the previous reporting period. Phosphorous concentrations in the final effluent remain higher due to reduced dosing at Location 4 and additional phosphorus loading from sludge holding tank cleaning that took place in December.
- [Figure 2](#) in the Appendix provides historic 30-day rolling average total phosphorus effluent levels from August 21, 2021 to December 31, 2025.
- [Figure 3](#) in the Appendix provides historic annual total phosphorus effluent loads from 2004 to December 31, 2025.
- [Table 1](#) in the Appendix provides the estimated effluent phosphorous concentrations throughout various stages of the NEWPCC upgrades.

Next steps:

- Switch over to the new WAS pipe for Location 4. Completion of the replacement WAS pipe was delayed due to a contractor illness and is now anticipated by January 22, 2026.
- Continue to review and optimize dosing rates based on operating conditions.

2. HEADWORKS FACILITIES

An overall site plan for the headworks project is provided in [Figure 4](#) in the Appendix.

Update on items from last report:

- Tunnels and Chambers: Installation of the liner wall in the H1 Chamber continues.
- Raw Sewage Pumping Station: Installation of the overhead doors and pump shafts is complete. Installation of shaft guards, piping, insulation, ducting, cabling, drywall, and painting is ongoing.
- Grit Building: Installation of the grit weir plates and pressure testing of sump discharge is complete; Installation of piping, sump pumps, railings, ducting, cabling, and electrical equipment is ongoing.
- Fine Screening Area: Installation of louvers and electrical to air handling units is complete. Installation of cabling, piping, sluice system, and screen channel covers is ongoing.
- Solids Handling and Mechanical Rooms: Installation of guardrails over the grit dewatering units, louvers, and the north wall panels is complete. Installation piping, ducting, cabling, HVAC equipment, and painting is ongoing.
- Y4 Gallery Connection: Installation of unit heaters is complete; Installation of piping and fire alarm cabling is ongoing.
- Main Control Building: Pressure testing of the glycol system is complete. Installation of piping insulation, cabling, ceiling grid, drywall, and painting is ongoing.
- Standby Generator Building: Installation of steel fencing, security equipment, flex ducts, gas unit heaters, and refrigerant piping is complete. Installation of ducting, insulation, cabling, and fire safety system is ongoing.
- Fuel Storage System: Installation and testing of fuel piping is complete; Installation of cabling is ongoing.
- Odour Control Facility: Installation of exterior wall insulation, cladding, steel platform, stairs, and biofilter media is complete. Installation of the odour control stack, piping, and placement of equipment is ongoing.
- Area Y: Installation of natural gas lines to the Solids Handling building and excavation for the north storm water detention system is complete. Energization of the transformers that supply the new Headworks facility with power is complete. Installation of land drainage piping, water mains, and construction of roads and sidewalks is ongoing.
 - On December 12, 2025, during the installation of a water main for the new Headworks facility, a feeder main broke causing significant flooding on Main Street. Investigation into root cause is underway.
- Existing NEWPCC Grit Area Modifications: Modifications to Grit Tank 1 are ongoing; Grit Tank 2 was taken out of service on November 24 for modification and work is ongoing.
- Ultraviolet (UV) Upgrade: The gates and actuators to be provided under a supply contract for the UV Upgrade were not delivered by the date specified. This has the potential to affect the schedule for the UV Upgrade. Alternate gates and actuators have been ordered and are currently tracking to be delivered to allow work to be completed by March 15, 2026.

Next steps:

- Tunnels and Chambers: Continue liner wall installation in the H1 Chamber.
- Raw Sewage Pumping Station: Connect the pumps to motors and continue installation of piping, insulation, ducting, electrical, drywall, and painting.
- Grit Removal Building: Continue installation of sump pumps, electrical systems, ducting, and piping.
- Fine Screening Area: Continue installation of channel covers, piping, and ducting.
- Solids Handling and Mechanical Rooms: Continue installation of heaters, ducting, piping, electrical, firestopping, drywall, and painting.
- Y4 Connection Gallery: Continue installation of piping and fire alarm cabling.
- Main Control Building: Continue installation of piping, electrical, ducting, ceiling grid, equipment, drywall, and painting.
- Standby Generator Building: Continue installation of ducting, cabling, and fire alarm systems.
- Odour Control System: Continue installation of roofing system, piping, and control equipment.
- Area Y: Continue installation of land drainage system piping, roadways, sidewalks, and grading.
- Existing NEWPCC Grit Area Modifications: Complete modifications to Tank 1 and the remaining modifications to Tanks 2 and 3 in winter 2025/2026.
- UV Upgrade: Shutdown the existing UV system from October 1, 2025 to March 15, 2026 to allow for upgrades. Additional sampling will be undertaken as per the Provincial Notice of Alteration approval. The volume of undisinfected treated effluent will be posted on the City's website.

Schedule update:

RRS may reschedule activities at their discretion. The only dates that cannot be modified without penalties are Raw Sewage Testing, Interim Completion, and Substantial Completion. The completion dates have changed for:

- "Odour Control System, Install" has been revised from January 12, 2026 to April 1, 2026
- "Commissioning" has been revised from March 31, 2026 to July 24, 2026
- "Decommissioning – Original Equipment" has been revised from August 28, 2026 to August 31, 2026

The current project schedule is provided in [Table 2](#) in the Appendix.

3. BIOSOLIDS FACILITIES

Update on items from last report:

- The Development Partner completed the Preliminary Design Period and achieved Stage Gate #2.
- The Development Partner commenced the Intermediate Design Period and is working towards Stage Gate #3.

- The NEWPCC Piping Installation, Soil Remediation, and Site Compound Development construction continues.
- The tender for the land drainage system (LDS) was awarded on November 20, 2025.
 - The LDS subsurface railway crossing application from Canadian Pacific Kansas City (CPKC) was submitted on February 21, 2025 and is pending approval.
 - Final approval of the Heritage Resource Impact Assessment report submitted to the Heritage Resource Branch in advance of this construction is pending.
- The tender for the Northwest Interceptor (NWI) Lining was awarded on November 25, 2025.

Next steps:

- The Development Partner will create a 60% design and Class 2 cost estimate by the end of Q2 2026.
- The NEWPCC Piping Installation, Soil Remediation, and Site Compound Development tender is anticipated to be completed in Q1 2026.
- Construction for the LDS tender is expected to begin in Q1 2026.
- Construction for the NWI Liner tender is expected to begin in Q1 2026.

Schedule Update:

- The current project schedule is provided in [Table 3](#) in the Appendix.
- Achievement of “DPA Stage Gate 2 – Preliminary Period” was delayed from November 17, 2025 to December 12, 2025. This does not impact the overall Development Phase schedule.

4. NUTRIENT REMOVAL FACILITIES

Update on items from last report:

- RFP Step 1 closed on October 17, 2025. Evaluations were completed and three proponents were shortlisted.
- Development of the contaminated soils remediation plan commenced in Q4 2025.

Next steps:

- Posting of the RFP Step 2 to Shortlisted Proponents is scheduled for January 30, 2026.
- Continue seeking external funding to support the project.
- Continue discussions with CPKC for the temporary surface crossing.
- Continue the contaminated soils remediation plan including finalizing the master plan scope and structure and developing a contaminated soils ‘design guideline’ for inclusion in the contract documents.

Schedule Update:

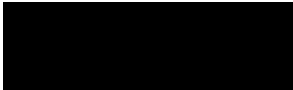
- The current project schedule is provided in [Table 4](#) in the Appendix.
- “Procurement – Post RFP Step 2” has been revised from January 16, 2026 to January 30, 2026 to allow for inclusion of project control terms stemming from the City's audit in the contract documents.

5. NEWPCC UPGRADE PLAN UPDATE

The City awaits comments from the Province on the February 28, 2025 report.

Should you have any questions, please contact me at 204-986-5210 or by email at cwiebe@winnipeg.ca.

Sincerely,



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

ATTACHMENTS: Figures and Tables

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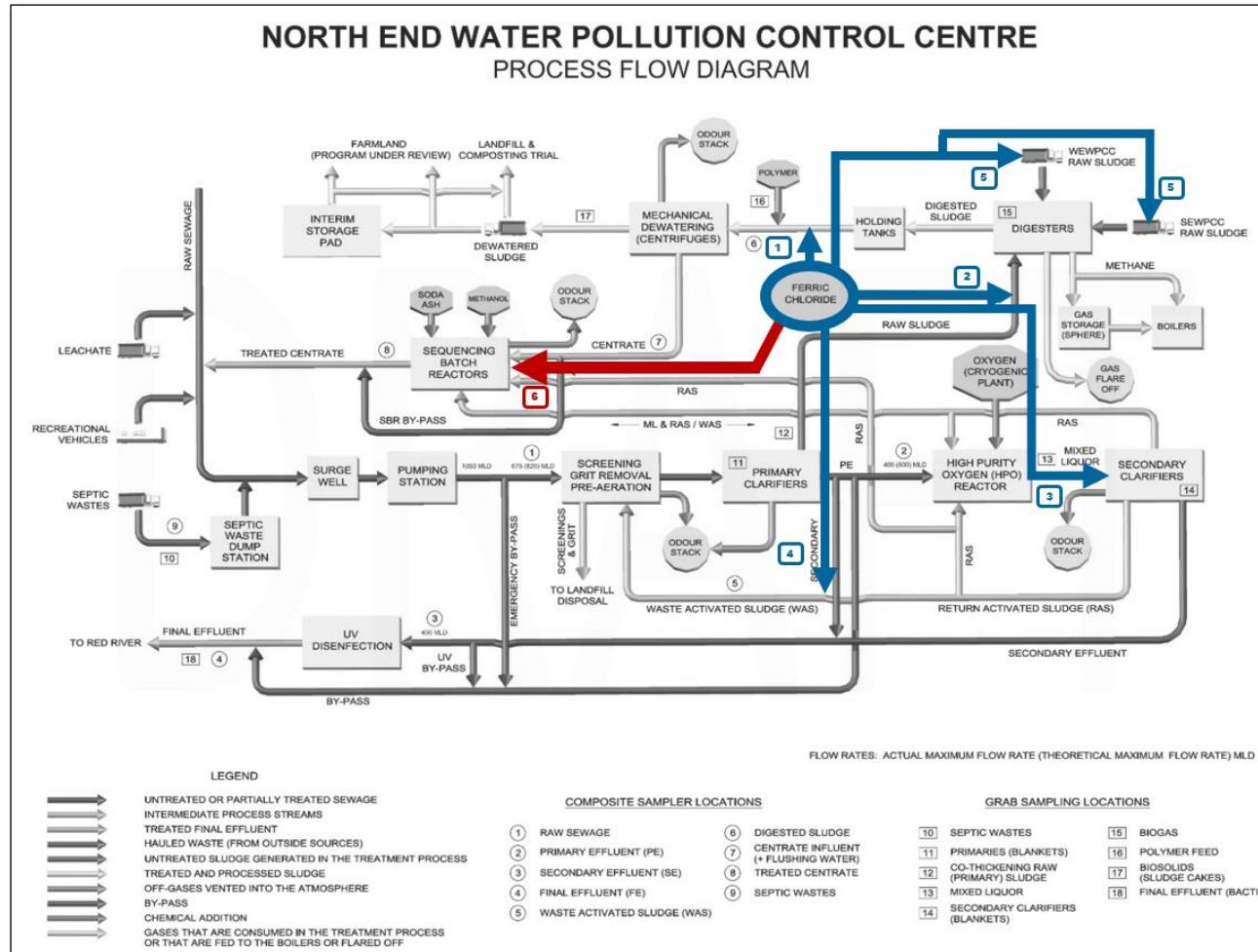


Figure 1: NEWPCC Ferric Chloride Dosing Points

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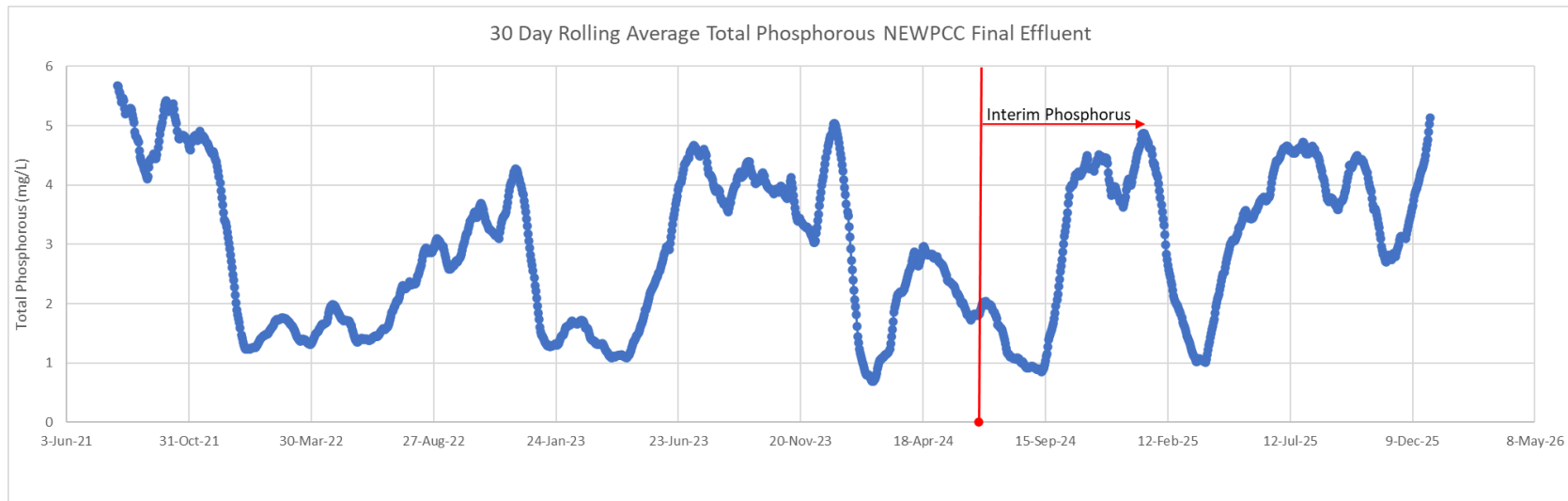


Figure 2: 30-Day Rolling Average Total Phosphorous in the NEWPCC Final Effluent from Aug 21, 2021 to December 31, 2025.

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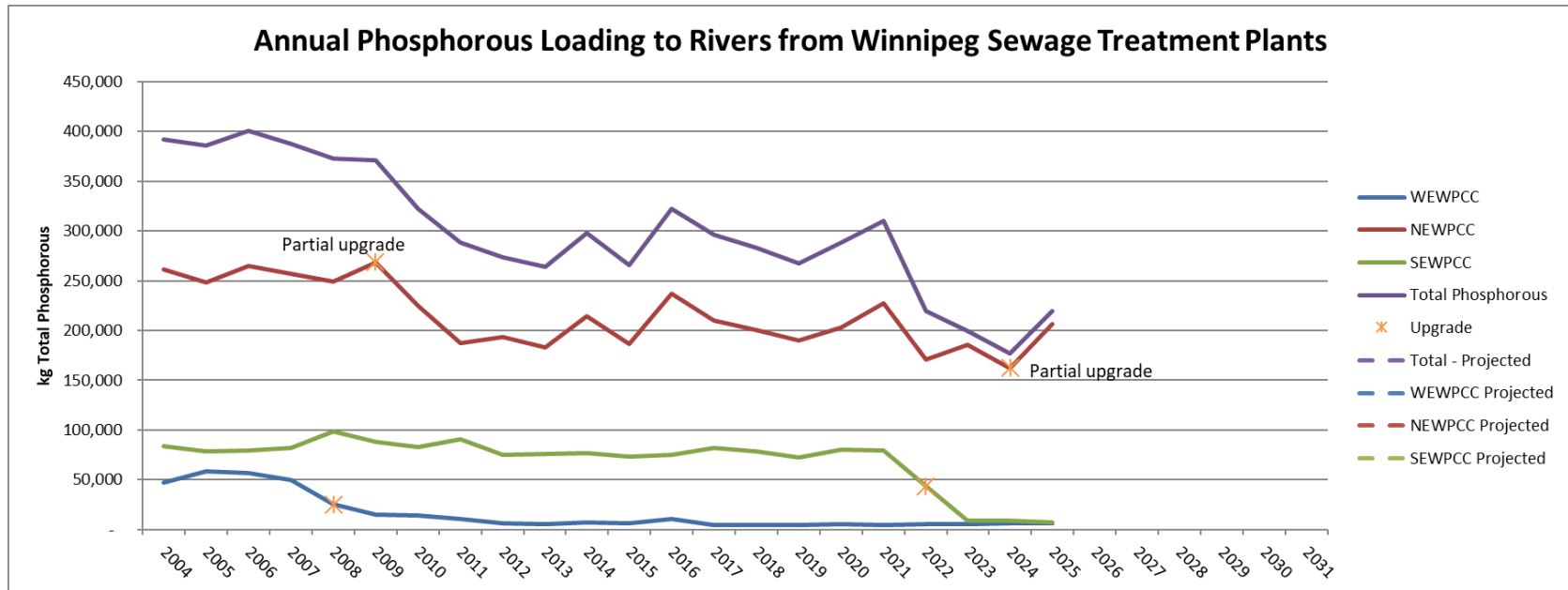


Figure 3: Historic Annual Total Phosphorous Effluent Loads from 2004 to December 31, 2025

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Table 1: Estimated Phosphorous Concentrations through NEWPCC Upgrade Stages

Stage	Period	Estimated Total Phosphorous Concentration in NEWPCC Final Effluent ^{1,2}	Monitoring Data: Total Phosphorous (NEWPCC Final Effluent)
Stage 1: Phosphorous reduction with existing infrastructure	Until Aug 2021	Approximately 4.0 to 4.5 mg/L on average	3.6 mg/L (Average from 2017 – 2021)
Stage 2: Maximized phosphorous reduction through optimization with existing infrastructure	Aug 2021 to Jun 24, 2024	Approximately 3.5 mg/L on average	2.5 mg/L (Average from 2022 to June 24, 2024)
Stage 3: Phosphorous reduction with Interim Chemical Phosphorous Facilities	Jun 25, 2024, to Dec 2030	Approximately 2.5 to 3.0 mg/L on average ³	3.3 mg/L (Average from June 25, 2024 to December 31, 2025)
Stage 4: Phosphorous reduction with commissioned Biosolids Facilities	Jan 2031 to Jan 2032	1 mg/L until Jan 2032 ⁴	
Stage 5: Ongoing phosphorous reduction with commissioned Nutrient Removal Facilities	TBD	1 mg/L	

¹ Based on the 'NEWPCC Interim Phosphorous Removal and Detail Review and Bench Scale Testing Report, December 2020

² The modelled data is a conservative estimate of total phosphorous concentrations. The model was developed based on historical wastewater loadings and factored in the projected impacts of upgrades at SEWPCC. Actual results are dependent on many variables, such as:

- the overall health and performance of the treatment bacteria
- the performance of various processes
- wet weather flow
- changes in development
- industrial activity (especially high strength industry)
- ongoing capital improvements

Phosphorous concentrations in the final effluent are reported in the NEWPCC's monthly compliance reports and can be found online at winnipeg.ca/wwcompliance.

³Phosphorous levels may increase as City growth consumes sludge processing capacity

⁴Phosphorous levels may increase after January 2032 dependent on sludge loading levels (assuming maximum sludge generating scenario)

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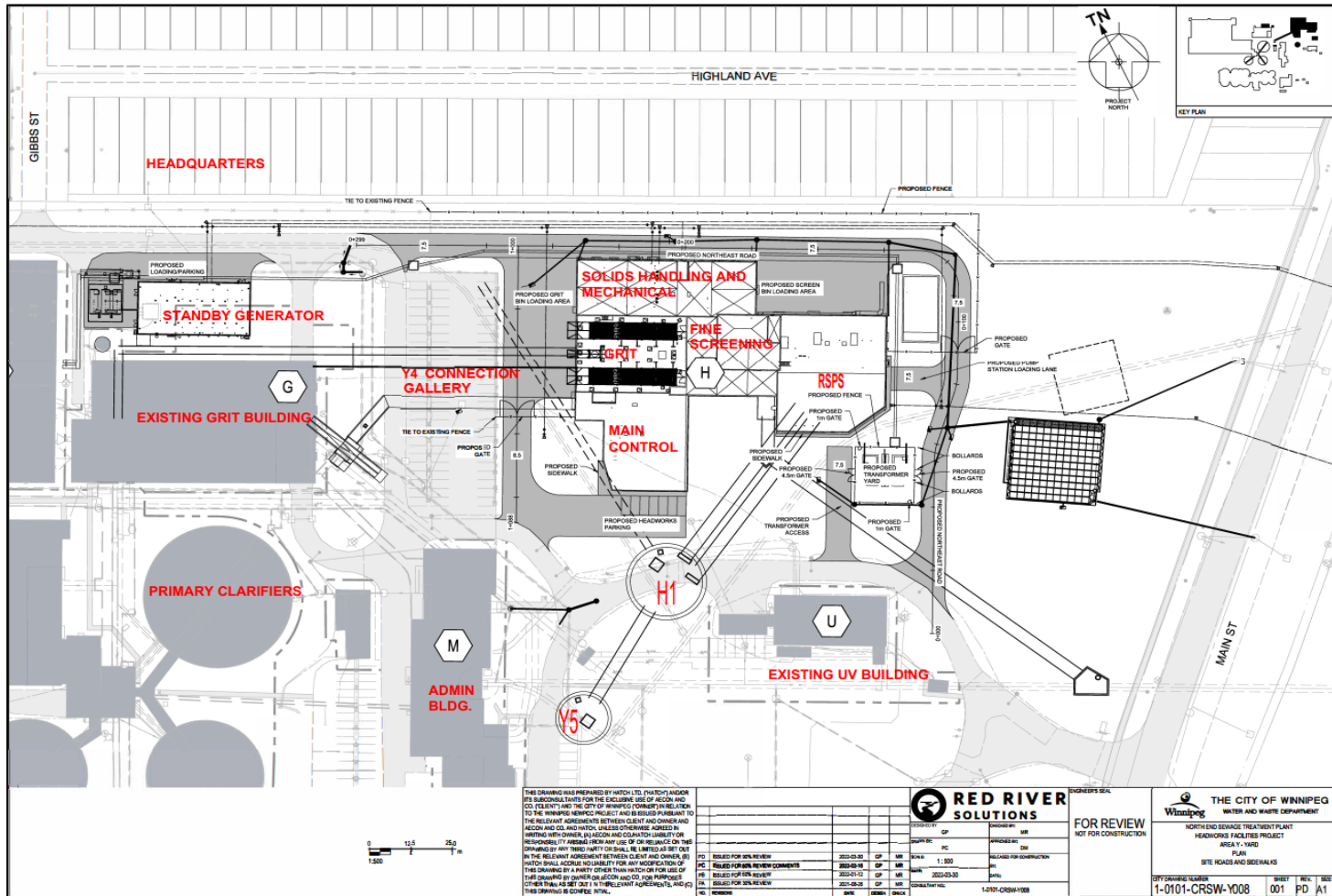


Figure 4: Headworks Facilities – Site Plan

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Table 2: Headworks Facilities – Project Milestones

Task Description	% Complete**			Original Targeted Completion Date	Revised Targeted Completion Date	Actual Completion Dates
	Oct	Nov	Dec			
Procurement and Contract Award	100%			Jun 30, 2021		Jun 11, 2021
DB Mobilization Complete	100%			Dec 31, 2021		Dec 15, 2021
30% Design	100%			Dec 14, 2021		Dec 14, 2021
60% Design	100%			Sep 30, 2022		May 22, 2024
90% Design	100%			Jan 23, 2023	Nov 30, 2024	Oct 29, 2024
IFC Design	100%			Apr 17, 2023	Jan 30, 2025	Jan 6, 2025
Driven Piles (All Areas)	100%			Aug 19, 2022		Mar 14, 2023
Secant Piles (H2, H1, Y5)	100%			Sep 29, 2022		Jan 13, 2023
Microtunneling (H1 to H2 and H1 to Y5)	100%			Dec 20, 2022	Feb 28, 2025	Mar 24, 2025
Generator Building, Structural and External Finishes	100%			Mar 14, 2023	May 30, 2025	May 30, 2025
Standby Generators, Install	100%			Aug 3, 2023		Oct 30, 2022
Raw Sewage Pumping Station (H2), Concrete	100%			Aug 7, 2023	May 30, 2025	May 31, 2025
H1 Chamber	79%	80%	80%	Sep 5, 2023	Aug 28, 2026	
Standby Generator Facility and Fuel Storage System	97%	98%	98%	Sep 15, 2023	Mar 5, 2026	

Table 2: Headworks Facilities – Project Milestones continued...

Task Description	% Complete**			Original Targeted Completion Date	Revised Targeted Completion Date	Actual Completion Dates
	Oct	Nov	Dec			
Grit Removal System, Install	100%			Sep 18, 2023	Jul 31, 2024	Jul 19, 2024
Y5 Chamber	50%	50%	50%	Dec 7, 2023	Aug 28, 2026	
Raw Sewage Pumps, Install	100%			Jan 23, 2024	Nov 25, 2024	Oct 23, 2024
Fine Screens, Install	100%			Mar 26, 2024	Jan 17, 2025	Nov 25, 2024
Headworks Building, Structural and External Finishes	100%			Jun 7, 2024	Aug 27, 2025	Aug 27, 2025
Odour Control System, Install	60%	70%	73%	Jul 8, 2024	Jan 12, 2026 April 1, 2026	
Civil Works and Landscaping	57%	60%	65%	Jul 26, 2024	Aug 28, 2026	
Headworks Building, Complete	85%	87%	90%	Nov 5, 2024	Mar 31, 2026	
Commissioning	0%	0%	0%	Mar 31, 2025	Mar 31, 2026 July 24, 2026	
Decommissioning – Original Equipment	0%	0%	0%	May 14, 2025	Aug 28, 2026 Aug 31, 2026	
Raw Sewage Testing*	0%	0%	0%	May 29, 2026		
Interim Completion*	0%	0%	0%	Jul 24, 2026		
Substantial Completion*	0%	0%	0%	Jun 30, 2025	Aug 31, 2026	

*These are the only milestones that are contractual and cannot slide without penalty

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

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Table 3: Biosolids Facilities – Project Milestones

Task Description	% Complete			Original Targeted Completion Date	Revised Targeted Completion Date	Actual Completion Dates
	Oct	Nov	Dec			
Updated Preliminary Design and Procurement Strategy	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)	100%			Jul 13, 2023		Jul 14, 2023
Shortlist Proponents	100%			Sep 30, 2023	Dec 4, 2023	Dec 1, 2023
Post RFP Step 2	100%			Oct 31, 2023	Dec 4, 2023	Dec 11, 2023
Contract Award of Development Phase Agreement (DPA)	100%			Jun 30, 2024	Sep 27, 2024	Sep 23, 2024
DPA Stage Gate 1 – Start-Up Period	100%			Feb 6, 2025		Jan 31, 2025
DPA Stage Gate 2 – Preliminary Period	89%	95%	100%	Sep 12, 2025	Nov 17, 2025 Dec 12, 2025	Dec 12, 2025
DPA Stage Gate 3 – Intermediate Period	0%	0%	7%	Apr 20, 2026	Jun 22, 2026	
Contract Award of Design Build Agreement	0%	0%	0%	Sep 18, 2026		
Substantial Completion				TBD following DBA – by Dec 31, 2030		

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Table 4: Nutrient Removal Facilities - Project Milestones

Task Description	% Complete			Original Targeted Completion Date	Revised Targeted Completion Date	Actual Completion Dates
	Oct	Nov	Dec			
Nutrient Removal Technology Selection	100%			Oct 19, 2023		Oct 12, 2023
Updated EPD	100%			Jun 30, 2024	Oct 18, 2024	Oct 21, 2024
Revised Class 3 Cost Estimate	100%			Sep 30, 2024	Nov 15, 2024	Nov 12, 2024
Procurement – Post RFP Step 1	100%			Aug 22, 2025		Aug 22, 2025
Procurement – Shortlist Proponents	50%	100%		Nov 21, 2025		Nov 14, 2025
Procurement – Post RFP Step 2	75%	85%	95%	Jan 16, 2026	Jan 30, 2026	
Contract Award – Development Phase Agreement	0%	0%	0%	Oct 16, 2026		
Substantial Completion	0%	0%	0%	Dec 31, 2032		

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