



Environment and Climate Change
Environmental Stewardship Division
Environmental Approvals Branch
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October 31, 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
JULY 1 – SEPTEMBER 30, 2025**

This report summarizes progress on the North End Sewage Treatment Plant (NEWPCC) upgrades, operating under Environmental Act Licence No. 2684 RRR, from July 1 to September 30, 2025.

1. INTERIM CHEMICAL PHOSPHOROUS REMOVAL FACILITIES

Update on items from last report:

- Ferric chloride is currently being dosed at the following locations:
 - Location 1: Centrifuges
 - Location 2: Primary Sludge Line
 - Location 3: Secondary Clarifiers
- Dosing at Location 4: Waste Activated Sludge (WAS) Line (formerly referred to as CEPT) remains offline due to a leak in the WAS pipe
 - Design reviews for replacing the WAS pipe are ongoing.
- Dosing at Location 5: Hauled Sludge Line remains offline pending consultant recommendation
- [Figure 1](#) in the Appendix shows the locations of the ferric chloride dosing points.
 - Dosing into Location 3 was increased to approximately 320 litres per day on July 25, 2025, which is 15% of the consultant's recommended dose.
 - It was further increased to 350 litres per day on September 4, 2025, which is 16.5% of the consultant's recommended dose.
- The average final effluent phosphorous level over the past three-month period (July 1, 2025 through September 8, 2025) is 4.1 mg/L. Phosphorous concentrations in the final effluent remain higher due to Location 4 being shut down and additional phosphorus loading from digester cleaning.
- [Figure 2](#) in the Appendix provides historic 30-day rolling average total phosphorus effluent levels from August 21, 2021 to September 8, 2025.
- [Figure 3](#) in the Appendix provides historic annual total phosphorus effluent loads from 2004 to present.
- The estimated effluent phosphorous concentrations throughout various stages of the NEWPCC upgrades are provided in [Table 1](#) in the Appendix.

Next steps:

- The offline digester will be returned to service in early Q4 2025.
- Replacement of the WAS pipe for Location 4 is anticipated in Q4 2025.

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:

- H1 Junction Chamber: Flows from the Northwest Interceptor were redirected to the bypass and the steel liner was removed. Concrete work to occur over several months for the liner wall.
- Raw Sewage Pumping Station: Installation of metal cladding, lighting fixtures on the main floor, and epoxy coating of the north wet well is complete. Installation of piping, ducting, cabling, firestopping, drywall, and painting is ongoing.
- Grit Building: Installation of monorail system, piping, railings, ducting, cabling, and electrical equipment is ongoing.
- Fine Screening Area: Installation of screen and brush motors, insulation for rainwater piping, and epoxy coating of the screen channels is complete. Installation of cabling, monorail beams, piping, sluice system, and screen channel covers is ongoing.
- Solids Handling and Mechanical Rooms: Installation of washer compactor motors is complete. Installation piping, ducting, cabling, and painting is ongoing.
- Y4 Gallery Connection: Installation of fire alarm cabling is ongoing.
- Main Control Building: Installation of concrete walkway is complete. Installation of piping insulation, cabling, drywall, and painting is ongoing.
- Standby Generator Building: Installation of louvers, control dampers, sprinkler heads, diffusers, and supply fans is complete. Installation of ducting, insulation, and cabling is ongoing.
- Fuel Storage System: Installation of cabling is ongoing.
- Odour Control Facility: Installation of exterior wall membrane and concrete roof slab is complete. Installation of the odour control stack, exterior finishing, and placement of equipment is ongoing.
- Area Y: Installation of fencing around the transformer yard is complete. Installation of land drainage piping, water mains, and construction of roads is ongoing.
- Ultraviolet (UV) Upgrade: Notice of the upcoming shutdown of the existing UV system was provided to nearby residents, downstream First Nation communities, Treaty One Nations, and Southern Chiefs' Organization. A news release, social media posts, and a project webpage was also launched in order to reach the broader general public.

Next steps:

- H1: Continue liner wall installation.
- Raw Sewage Pumping Station: Epoxy coat the south wet well and continue installation of piping, ducting, electrical, firestopping, drywall, and painting.

- Grit Removal Building: Continue installation of electrical systems, ducting, and coating south effluent channel.
- Fine Screening Area: Continue installation of metal cladding, roofing, piping, electrical, and monorail.
- Solids Handling and Mechanical Rooms: Continue installation of electrical, ducting, and piping.
- Y4 Connection Gallery: Continue installation of fire alarm cabling and devices.
- Main Control Building: Continue installation of piping, electrical, ducting, and equipment.
- Standby Generator Building: Continue site grading and installation of ducting, cabling, and lighting.
- Odour Control System: Continue installation of roofing system, exterior finishing, piping, and control equipment.
- Area Y: Energize transformers and continue watermain installation, grading, and roadway preparation.
- Existing NEWPCC Grit Area Modifications: Complete modifications to Tank 1 and the remaining modifications to Tanks 2 and 3 in fall/ winter 2025/2026.
- UV Upgrade: Shutdown the existing UV system from October 1, 2025 to March 15, 2026 to allow for upgrades. Addition sampling will be undertaken as per the Provincial Notice of Alteration approval. The volume of undisinfectated treated effluent will be posted on the City's website.

Schedule update:

A budget amendment and contract over-expenditure for the NEWPCC Headworks project was approved by City Council on September 25, 2025. The budget amendment and contract over-expenditure resolves a dispute related to a contract relief event for covid related cost escalation. It also resolves other pending contract claims related to outfall condition, PLC panel changes, surge well elevations, loop drawings, and permit delays. A schedule extension was included as part of the resolution.

With the extension, the new Headworks Facility is expected to be in operation in Q2 2026 and completed in Q4 2026. Two new milestones have been added to Table 2 in the Appendix. The first milestone called "Raw Sewage Testing" is when all flows will be directed to the new Headworks facility. The second milestone called "Interim Completion" is when the 30-day performance test will be complete. The date for Substantial Completion in Table 2 has been updated to reflect the extension; however Red River Solutions will need to rebaseline their schedule to update the other target completion dates. The extension does not impact the Biosolids or Nutrient Removal Facilities projects.

RRS may reschedule activities at their discretion. The only date that cannot be modified without penalty is Substantial Completion. The completion dates have also changed for:

- "Standby Generator, Install" has been revised from Sept 17, 2025 to Mar 5, 2026
- "Odour Control System, Install" has been revised from Aug 29, 2025 to Jan 7, 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 is in the Preliminary Design Period and is working towards Stage Gate #2.
 - The preliminary design was received from the Development Partner in August 2025 and is currently being reviewed.
- The NEWPCC Piping Installation, Soil Remediation, and Site Compound Development construction continues.
- The tender for the land drainage system (LDS) was posted on September 12, 2025 and is anticipated to close on October 14, 2025.
 - The LDS subsurface railway crossing application from Canadian Pacific Kansas City (CPKC) was submitted on February 21, 2025 and is pending approval.
 - Heritage resource exploration to mitigate delays during construction of the future LDS system is ongoing.

Next steps:

- The Development Partner will create a Class 3 cost estimate in Q4 2025 based on the preliminary design.
- After completion of Stage Gate #2, the Development Partner is anticipated to start the Intermediate Design Period in Q4 2025.
- Construction work will continue for the NEWPCC Piping Installation, Soil Remediation, and Site Compound Development tender. This construction is anticipated to be completed by Q4 2025.
- Start construction of the LDS in Q4 2025.

Schedule Update:

- The current project schedule is provided in [Table 3](#) in the Appendix.

4. NUTRIENT REMOVAL FACILITIES

Update on items from last report:

- The procurement phase continues. Development of the procurement and contract documents is ongoing.
- A temporary construction surface crossing of the CPKC rail line is being sought to facilitate construction activities for the Biosolids and Nutrient Removal projects. A crossing application was submitted on September 12, 2025.
- RFP Step 1 was posted August 22, 2025 and is scheduled to close October 17, 2025.

Next steps:

- Shortlist Proponents from RFP Step 1 after the October 17, 2025 submission deadline.
- Posting of the RFP Step 2 to Shortlisted Proponents is scheduled for January 16, 2026.
- Commence the development of a contaminated soils remediation plan in Q4 2025. Plan to consider both the Nutrient Removal and Biosolids areas.

Schedule Update:

- The current project schedule is provided in [Table 4](#) in the Appendix.

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

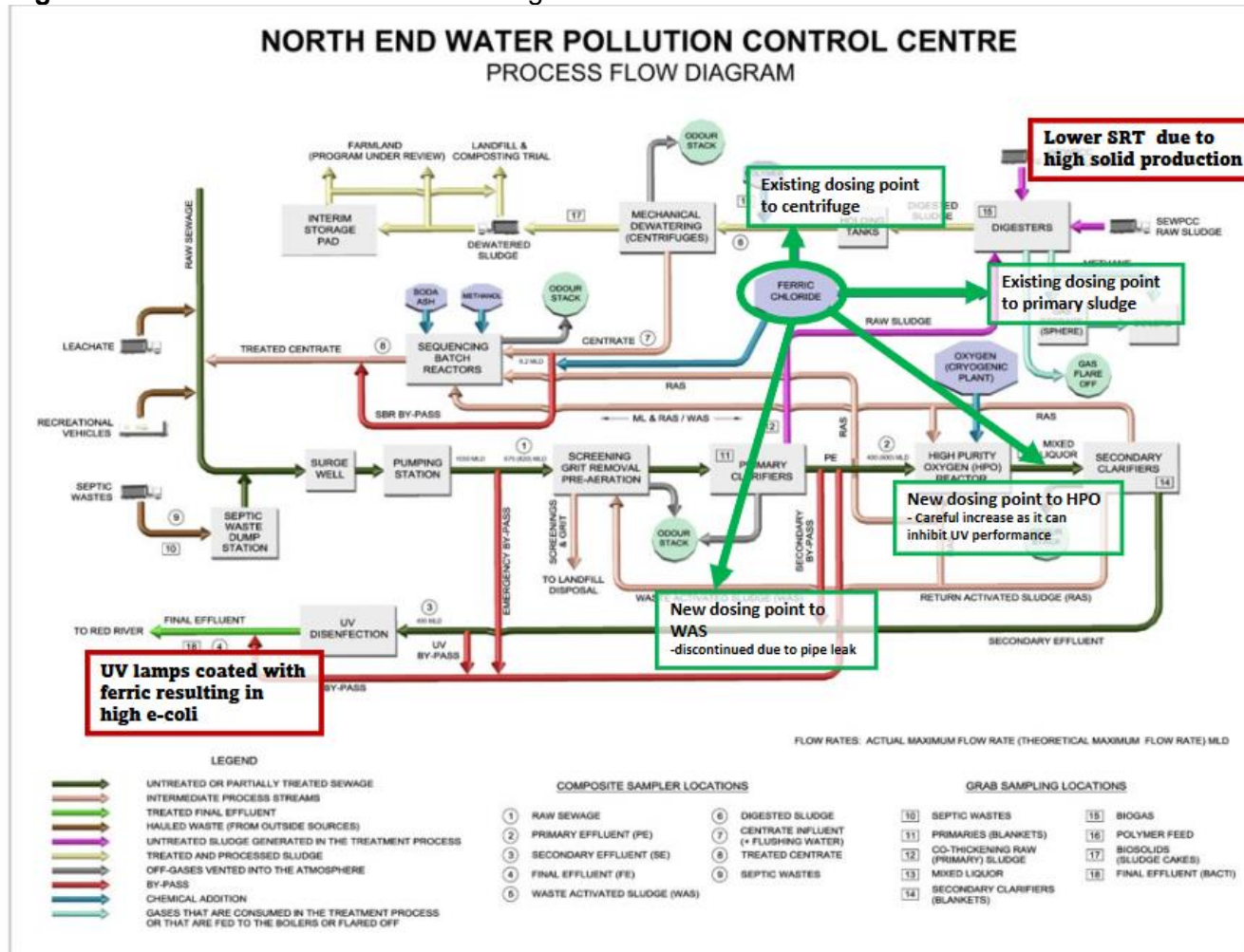
ATTACHMENTS: Figures and Tables

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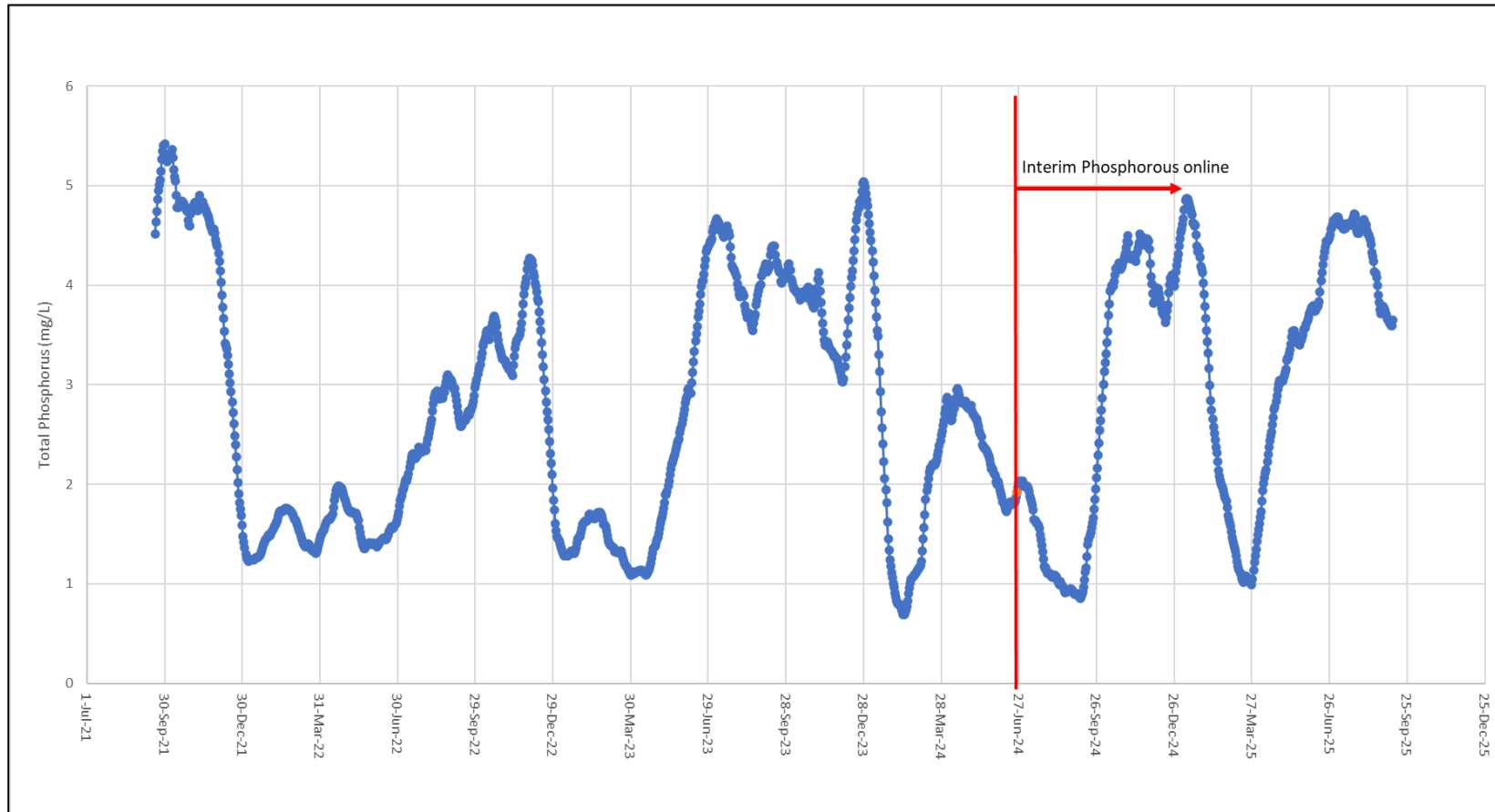
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|---|---|
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Figure 1: NEWPCC Ferric Chloride Dosing Points



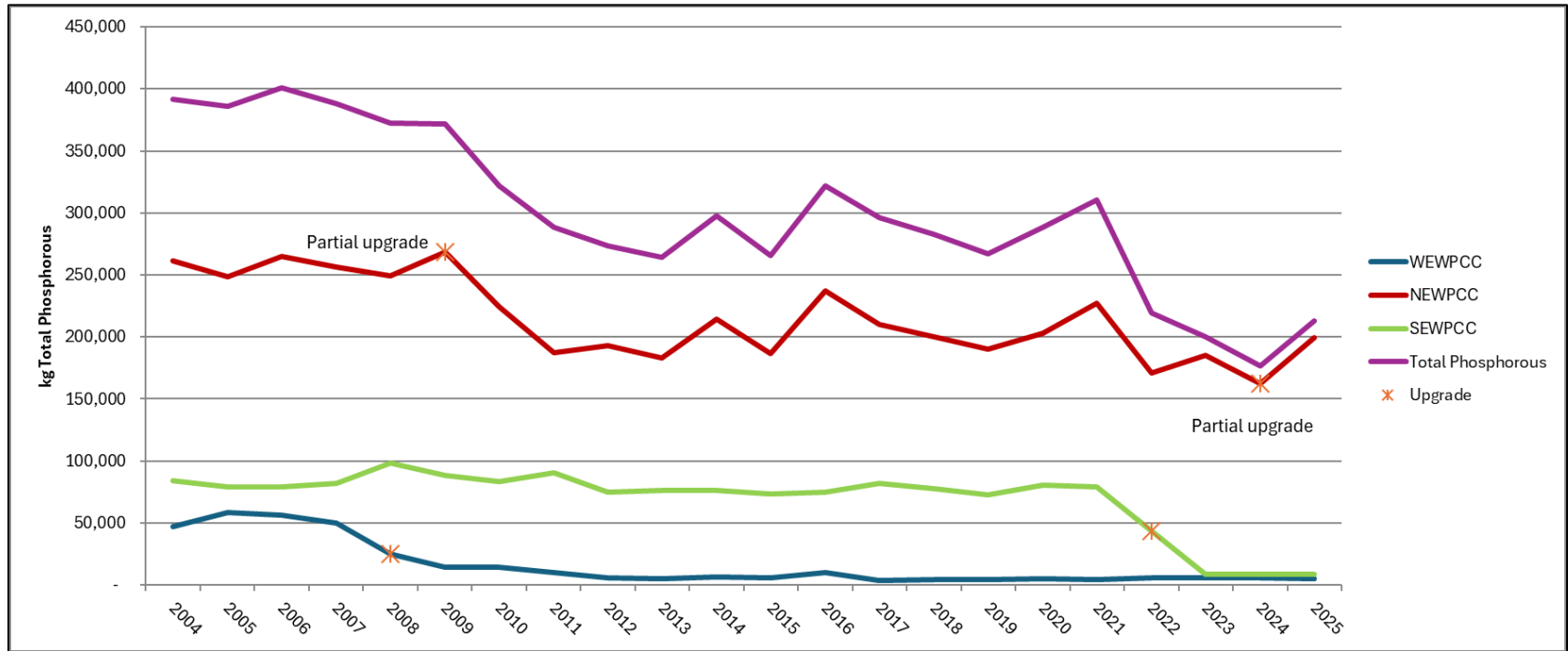
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Figure 2: 30-Day Rolling Average Total Phosphorous in the NEWPCC Final Effluent from Aug 21, 2021 to Sep 8, 2025.



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Figure 3: Historic Annual Total Phosphorus Effluent Loads from 2004 to Present¹



¹2025 data is an estimate and is based on the total phosphorus loads to date and historic trends

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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	3.1 mg/L ⁵
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.

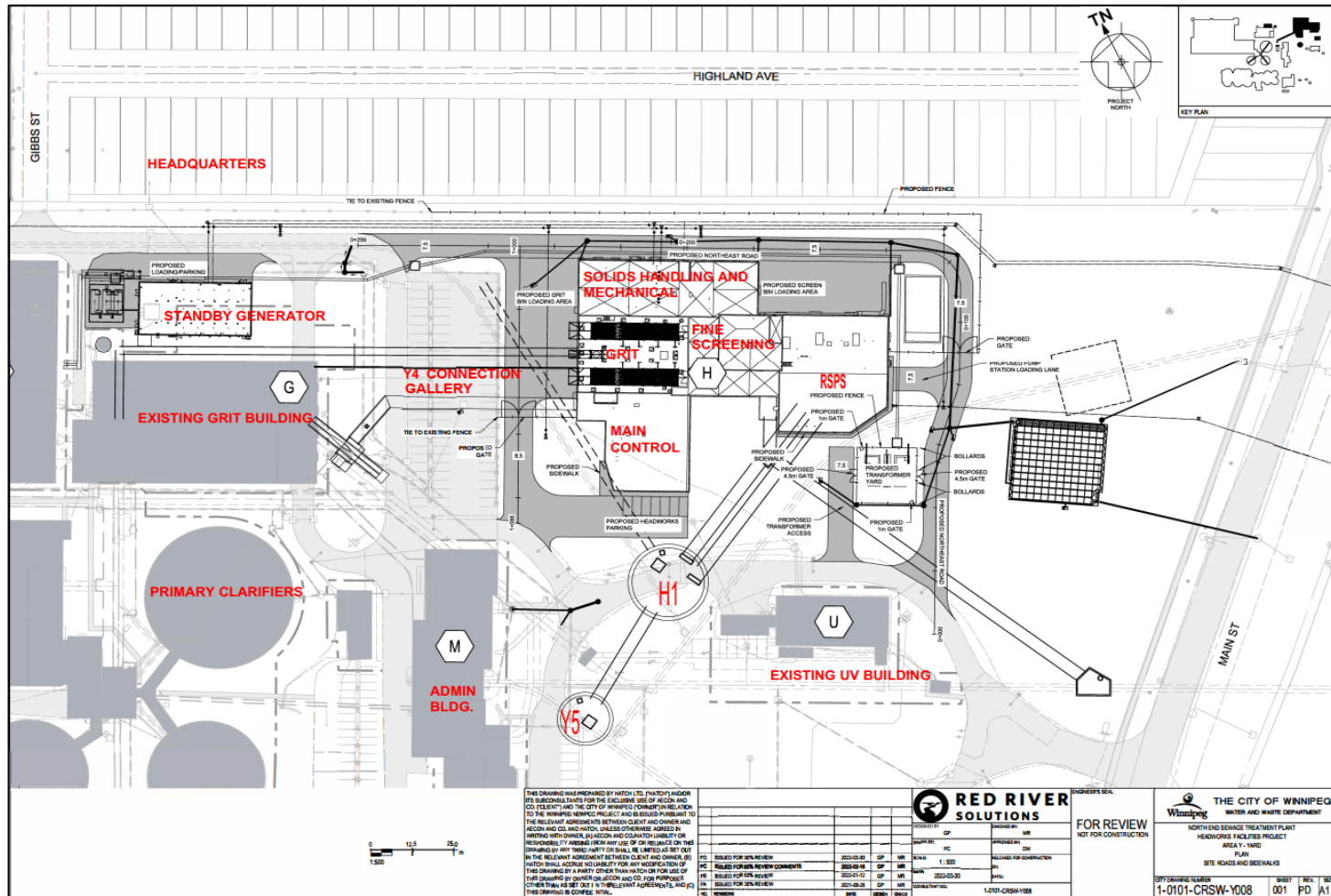
³Phosphorous levels may increase as City growth consumes sludge processing capacity

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

⁵ Average final effluent phosphorous level for June 25, 2024 to September 8, 2025

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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
	July	Aug	Sept			
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	69%	71%	75%	Sep 5, 2023	Aug 28, 2026	
Standby Generator Facility and Fuel Storage System	95%	96%	96%	Sep 15, 2023	Sept 17, 2025 Mar 5, 2026	

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

Task Description	% Complete**			Original Targeted Completion Date	Revised Targeted Completion Date	Actual Completion Dates
	July	Aug	Sept			
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	75%	100%		Jun 7, 2024	Aug 27, 2025	Aug 27, 2025
Odour Control System, Install	37%	44%	55%	Jul 8, 2024	Aug 29, 2025 Jan 12, 2026	
Civil Works and Landscaping	30%	40%	50%	Jul 26, 2024	Aug 28, 2026	
Headworks Building, Complete	78%	81%	83%	Nov 5, 2024	Mar 31, 2026	
Commissioning	0%	0%	0%	Mar 31, 2025	Mar 31, 2026	
Decommissioning – Original Equipment	0%	0%	0%	May 14, 2025	Aug 28, 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	Mar 31, 2026 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
	July	Aug	Sept			
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	56%	67%	78%	Sep 12, 2025	Nov 17, 2025	
DPA Stage Gate 3 – Intermediate Period	0%	0%	0%	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
	July	Aug	Sept			
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	80%	100%		Aug 22, 2025		Aug 22, 2025
Procurement – Shortlist Proponents	0%	0%	0%	Nov 21, 2025		
Procurement – Post RFP Step 2	45%	50%	65%	Jan 16, 2026		
Contract Award – Development Phase Agreement	0%	0%	0%	Oct 16, 2026		
Substantial Completion				Dec 31, 2032		

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