

**Minutes – Standing Policy Committee on Finance and Economic Development –
October 14, 2025**

REPORTS

**Item No. 5 NEWPCC Upgrade: Power Supply and Headworks Facilities,
Project ID: 2031001304, 2031001310 and 203110013B,
Quarterly Project Status Report No. 40
For the Period Ended July 31, 2025**

STANDING COMMITTEE DECISION:

The Standing Policy Committee on Finance and Economic Development concurred in the recommendation of the Winnipeg Public Service and received the financial status of the NEWPCC Upgrade: Power Supply and Headworks Facilities project, as contained in this report, as information.

**Minutes – Standing Policy Committee on Finance and Economic Development –
October 14, 2025**

DECISION MAKING HISTORY:

Moved by Councillor Lukes,

That the recommendation of the Winnipeg Public Service be concurred in.

Carried

ADMINISTRATIVE REPORT

Title: NEWPCC Upgrade: Power Supply and Headworks Facilities,
Project ID: 2031001304, 2031001310 and 203110013B,
Quarterly Project Status Report No. 40
For the Period Ended July 31, 2025

Critical Path: Standing Policy Committee on Finance and Economic Development

AUTHORIZATION

Author	Department Head	CFO	CAO
C.D. Wiebe, P. Eng., CAMP, Manager Engineering Services	T. W. Shanks, M. Eng. P. Eng. Director, Water and Waste	T. Graham	J. Dunford

EXECUTIVE SUMMARY

Project On Schedule: Yes ☐ No ☒

Project On Adopted Budget: Yes ☐ No ☒

Percent of Schedule Complete: 77%

Percent of Adopted Budget Spent: 68%

The amended Capital Budget for the North End Sewage Treatment Plant (NEWPCC) Upgrade: Power Supply and Headworks Facilities project is \$517.855 million. Expenditures to date are \$354.311 million including a total of \$20.3 million spent during this reporting period.

Headworks Facilities

During this reporting period, Red River Solutions (RRS) has focused on the following construction activities:

- Completion of all masonry works for the Raw Sewage Pumping Station excluding the main control room
- Installation of Variable Frequency Drive (VFD) equipment within the Raw Sewage Pumping Station electrical room
- Hydrostatic testing of wet wells for the Raw Sewage Pumping Station and influent channels in the Fine Screening Area and Grit Building
- Installation of formwork and placement of concrete in the H1 Chamber
- Installation of air handling units and electric unit heaters for the Standby Generator Building
- Installation of electrical and automation equipment, cabling, and ductwork throughout the facility

A total of 141 milestones have been reviewed and paid to the contractor, including 23 this reporting period.

The Public Service will be advancing a budget amendment request and over-expenditure report for consideration by Council in September to resolve a dispute related to a contract relief event for COVID related cost escalation and other forthcoming claims.

RRS has estimated that the potential tariff impact on the project could be up to \$3.6 million. Efforts to mitigate the impact are being considered to reduce potential costs.

Distributed Control System (DCS) Migration

The second area, Primary Clarifiers, was migrated. The control panel for the Digesters, the third area to be migrated, is built and is on-site.

The General Construction Contractor is installing the control panel for the Digesters and is working on the pre-wiring of the new cables.

The DCS Migration is expected to be completed in Q4 2027.

Primary Clarification Upgrade

The construction tender for the construction of a scum dewatering building was awarded to M.D. Steele Construction Ltd. on May 29, 2025.

The Primary Clarifier Upgrade is expected to be completed in Q3 2027.

Ultraviolet Light (UV) Upgrade

The construction tender for the UV upgrade was awarded to Red River Solutions, an Oscar Renda General Partnership on May 30, 2025. All bids received were below the pre-bid estimate. The additional funds held for the work have been returned to the contingency allowance.

The UV Upgrade is expected to be completed in Q4 2026.

NEWPCC Upgrade Audit

The Public Service is actively engaged in addressing and implementing the audit recommendations. KPMG continues to develop a fit-for-purpose governance structure for the NEWPCC Upgrade projects. The governance structure is expected to be considered by Council in late Q4 2025.

The Advisory Committee has reviewed this report and recommends that the report be sent to the Standing Policy Committee on Finance and Economic Development.

RECOMMENDATIONS

That the financial status of the NEWPCC Upgrade: Power Supply and Headworks Facilities project, as contained in this report, be received as information.

REASON FOR THE REPORT

Major Capital Projects are required to report quarterly to the Standing Policy Committee on Finance and Economic Development. The threshold for reporting is reviewed at the beginning of each multi-year budget cycle and revised, if required, for Council consideration. For the 2024-2027 multi-year budget cycle Council approved that the threshold be maintained at \$25

million. The Standing Policy Committee on Finance and Economic Development may also request reporting on any capital project.

IMPLICATIONS OF THE RECOMMENDATIONS

No implications.

HISTORY/DISCUSSION

See Appendix C – Key Project Events (History)

Construction (Update from last report)

NEWPCC Upgrade: Power Supply and Headworks Facilities

Headworks Facilities Design Build Execution

Request for Proposal (RFP) 659-2018B:

Significant construction continues on site. Highlights include:

- Installation of VFDs and flow meters for the raw sewage pumps and all masonry work in the Raw Sewage Pumping Station, excluding the main control room, are complete. Installation of exterior wall finishes, cable trays, conduits, wiring, and piping continues.
- Hydrostatic testing of wet wells for the Raw Sewage Pumping Station and influent channels in the Fine Screening Area and Grit Building is complete.
- Construction of the concrete liner wall and interior structures in the H1 Chamber is ongoing, with multiple pours to occur over several months.
- Installation of exterior wall membrane and insulation, piping, cable, and cable trays is ongoing in the Fine Screening Area.
- Installation of monorail beams, piping, ductwork, cables, electrical instrumentation, and terminations are ongoing in the Grit Building. The installation of the fiberglass reinforced plastic covers are complete.
- Pours for the concrete pads in the Solids Handling and Mechanical Room boiler room are nearing completion. Installation of metal cladding, ductwork, piping, cabling, terminations, and painting is ongoing.
- Installation of piping insulation, electrical panels, cables, lighting fixtures, drywall, painting, and application of firestopping is ongoing in the Main Control Building.

- Installation of air handling units and electric unit heaters for the Standby Generator Building is complete. Installation of ductwork, acoustic exhaust louvres, cabling, and terminations is ongoing.

RRS has applied for a total of 141 milestone inspections to the Independent Certifier and all have been paid.

Relief Events under Discussion

The Public Service will be advancing a request for budget amendment and over-expenditure report for consideration by Council in September to resolve a dispute related to a contract relief event for COVID related cost escalation and other forthcoming claims (see Subsequent Events).

On May 16, 2025, RRS submitted a follow-up correspondence on tariffs indicating that the potential tariff impact on the project could be up to \$3.6 million. Efforts to mitigate the impact are being considered. External legal has been engaged on this issue.

Relief Event² Costs to Date:

Description:	Cost to Date
1. Contaminated soils (to date):	3.16 million ¹
2. Differing ground conditions:	8.16 million
3. Design Code Change:	2.03 million
4. Area E Shoring Underground:	0.043 million
Total:	13.39 million

Notes:

1. The total cost of contaminated soil remediation will increase as excavation work continues.
2. This table only includes relief events, not all changes are considered relief events.

RFP 102-2017: External legal and expert cost review services were provided for the COVID related cost escalation relief event. External legal services were also provided for the tariff relief event.

Other Power Supply and Headworks Facilities Projects

DCS Migration

- **RFP 76-2023:** Schneider Electric Systems Canada Inc. is working on the following integration tasks:
 - Finalizing closeout documents for the second area (Primaries) that was successfully migrated.
 - Constructing and testing programmable logic controller (PLC) panel for area B (Boilers).

- Developing the PLC and HMI programs for area D (Digesters).
- **Tender 385-2023:** Centec Electric and Controls Ltd. is working on the following general construction tasks:
 - Pre-wiring and installation of the PLC panel for area D (Digesters).
 - Reviewing the commissioning plan for area D (Digesters).

Primary Clarification Upgrade

- **RFP 785-2020:** Professional consulting and contract administration services are ongoing.
- **Tender 721-2024:** The construction tender closed on April 16, 2025, with five bids being received. The contract was awarded to M.D Steel Construction Ltd. on May 29, 2025.
- **Tender 1003-2022:** Fabrication of the scum dewatering equipment is complete with the equipment expected to arrive on site in July 2025. The equipment will be stored by the City until the construction contractor is ready for installation.

UV Upgrade

- **RFP 182-2015:** Professional consulting and contract administration services are ongoing.
- **Tender 30-2025:** The construction tender closed on May 9, 2024, with three bids being received. All bids received were below the pre-bid estimate. The additional funds held for the work have been returned to the contingency allowance. The contract was awarded to Red River Solutions, an Oscar Renda General Partnership.

Table 1 – Contracts

Contracts (open or Recently Closed Contracts over \$250,000.00)							
Bid Opportunity #	Company Name	Description	Original Contract Award Value (GST & MRST extra as applicable)	Total Approved Over-Expenditures (Over-Expenditure amount only)	Date of Award	Date of Total Completion	Estimated % Complete
182-2015 (Phase 2)	AECOM Canada Ltd	Engineering Services for Headworks Upgrade – Phase 2	\$ 7,992,827	\$ 1,654,424.00	8-Oct-2020	-	57
182-2015 (DCS Migration)	AECOM Canada Ltd	Engineering Services – DCS Migration	\$ 2,698,331	\$ -	8-Oct-2020	-	64
182-2015 (UV Upgrade) ¹	AECOM Canada Ltd	Engineering Services – UV Upgrade	\$ 3,503,000	\$ -	30-Oct-2023	-	46
102-2017 ¹	Blakes Cassels & Graydon LLP	External Legal Counsel - NEWPCC Upgrade Project	\$ 387,504	\$ 468,125.00	23-Nov-2017	-	33
659-2018 B ¹	Red River Solutions	Design Build of NEWPCC Upgrade: Headworks Facilities	\$ 271,611,000	\$ 56,971,909.00	11-Jun-2021	-	79
785-2020	AECOM Canada Ltd	Engineering Services - Primary Clarification Upgrades	\$ 2,166,775	\$ 1,623,375.00	7-Jun-2021	-	50
64-2021 ²	Altus Group Limited	Independent Certifier Services	\$ 274,350	\$ -	21-Jul-2021	-	81
92-2022 ¹	Centec Electric & Controls Ltd	NEWPCC DCS Migration - Fibre Supply and Installation	\$ 1,333,196	\$ -	16-Jun-2022	-	99
740-2022	Peguis Consultation & Special Projects Inc.	Archaeological and Environmental Monitoring Services	\$ 75,000	\$ 475,000	31-Aug-2022	-	53
1003-2022 ¹	Fournier Industries	NEWPCC Primary Clarifiers - Procurement of Scum Presses and Associated Controls	\$ 1,155,405	\$ -	2-May-2023	-	10
76-2023 ¹	Schneider Electric Systems Canada Inc.	DCS Migration - Integrator Supply and Services	\$ 11,950,000	\$ -	27-Nov-2023	-	33
385-2023 ¹	Centec Electric & Controls Ltd	DCS Migration - General Construction	\$ 3,925,375	\$ -	6-May-2024	-	14
975-2023 ¹	Trojan Technologies ULC	UV Upgrade - Supply of Ultraviolet Disinfection Equipment	\$ 7,283,811	\$ -	6-May-2024	-	20
756-2013 (Extension 2) ¹ / PO 737847	EECOL Electric	UV Upgrade - Supply of Motor Control Centres	\$ 460,100	\$ -	12-Dec-2024	-	0
1015-2025	Flocor Inc.	UV Upgrade - Supply of Slide Gates and Weir Gates for Wastewater	\$ 421,500	\$ -	20-Feb-2025	-	0
51-2022	BFL Canada Risk and Insurance Services Inc.	Owner-Controlled Insurance	\$ 1,979,639	\$ -	4-Nov-2022	-	99
30-2025 ¹	Red River Solutions	NEWPCC Ultraviolet (UV) Upgrade	\$ 8,795,603		30-May-2025		0
721-2024 ¹	M.D. Steele Construction Ltd.	NEWPCC - Primary Clarification Upgrade Project	\$ 19,473,421		29-May-2025		0
		Total	\$ 345,486,836.85	\$ 61,192,833			

¹The Original Contract Award Value includes MRST.²This is a biparty agreement with cost shared equally between the design builder and the City. Only the amount related to City is indicated.

Schedule (Update from last report)

Table 2 – Milestones

Project Milestones					
Deliverable		Original Targeted Completion Date	Revised Targeted Completion Date	Actual Completion Date	Estimated % Complete
1	Project Definition Report ¹	2017 Q2	2017 Q2	2017 Q2	100
2	Preliminary Design Report	2018 Q1	2018 Q3	2018 Q3	100
3	Cost Report ²	2018 Q3	2018 Q3	2018 Q3	100
4	Design Build RFP	2020 Q1	2020 Q1	2020 Q1	100
5	Design Builder Contract Award	2020 Q4	2021 Q2	2021 Q2	100
6	Design Build Substantial Completion	2025 Q4	2026 Q1	-	86
7	Design Build Final Completion	2026 Q4	2026 Q2	-	83
8	DCS Migration Substantial Completion	2027 Q4	-	-	45
9	Primary Clarification Upgrade Substantial Completion	2023 Q4	2027 Q2	-	-
10	UV Upgrade Substantial Completion	2026 Q4	-	-	-

¹Owner's Advocate Class 5 Estimate

²Cost Consultant Class 3 Estimate

Risk (Update from last report)

No new risks were identified in this reporting period. The following are updates for ongoing risks:

- RRS has estimated that the potential tariff impact on the project could be up to \$3.6 million. Efforts to mitigate the impact are being considered to reduce potential costs.
- The project team and RRS have reached an agreement, subject to Council approval, on the contract relief event for COVID related cost escalation and other forthcoming claims. A budget amendment and over-expenditure report will be considered by Council in September.
- The tender for the UV Upgrade closed with all bids received being under the pre-bid estimate for the work. No project deferrals or budget amendment for the Primary Clarification Upgrade or UV Upgrade projects are required and this risk is now closed.

Table 3 – Significant Risks and Mitigations Strategies

NEWPCC Upgrade: Power Supply and Headworks Facilities Project	
Significant Risks and Mitigation Strategies	
Risk Statement and Explanation	Risk Mitigation Management Plan
<u>New:</u>	
-	-
-	-
<u>Ongoing:</u>	
RRS has submitted a relief event notice regarding tariffs and their potential cost impacts on the project.	Project requirements include tariffs within the definition of change in law which would be treated as a relief event if it occurs. Determine outstanding equipment and material that may be subject to tariffs. Determine if alternate country of origin sources exist that meet quality requirements and supply timelines. A budget amendment may be required for this risk.
Potential for heritage resources to be uncovered during excavation resulting in work stoppages and cost and schedule impacts.	Conduct archaeological test pitting of excavation areas in advance. Engage heritage resource monitors as required.
Delays in access to the existing Grit Area to complete tie-in work which may affect the commissioning schedule for the new Headworks Facility.	Consider options to allow access to the existing Grit Area earlier to mitigate potential schedule impacts.
RRS has submitted a claim for cost increases for labour, material, equipment and subcontractors.	Review claims as they occur and determine if there is entitlement to relief under the Design Build Agreement. A budget amendment and over-expenditure report to be considered by Council for this issue.
Budget and schedule risks associated with the NWI failure.	A budget amendment was approved for the additional costs associated with the NWI failure. The City is working with insurers to determine level of coverage. The delay associated with the NWI failure has extended the overall project schedule and the date of substantial completion has been revised. There is potential this may cause coordination issues with future construction projects. Close coordination with other projects is being undertaken.
Impacted soils were discovered by RRS during soil stripping and early excavating work. More impacted soils may be uncovered during next phases of excavation.	Disposal locations for impacted soils have been identified as GFL or Prairie Green depending on the level of contaminant. Disposal plans have been reviewed and approved by the Province. Transportation of impacted soil to disposal sites is in progress. Site delineation plan and Phase 2 environmental soil sampling testing will be conducted for any future impacted soils discovery. The project team will investigate the lowest cost options for soil disposal if required.
Due to multiple construction activities occurring at NEWPCC and construction work occurring in a congested site, limited site access and schedule conflicts/delays may occur affecting tie-ins and shutdowns during construction.	There is regular communications between project managers and consultants to ensure regular coordination of projects at NEWPCC.
NEWPCC is a continuously operating sewage treatment plant, the design builder may cause unintended shut downs or disruptions resulting in failure to meet the Environment Act Licence.	Project requirements include details on how the design builder coordinates with the City prior to tying in to the existing plant. Payment adjustments are included in the contract if unintended shut downs or disruptions occur.
There could be excess noise, dust, and light during construction as a result of the project.	The project requirements include construction requirements related to noise. The design builder is also required to have a community impact mitigation plan to avoid such issues.

Due to construction occurring around existing infrastructure, destabilization or damage to existing structures may occur resulting in increased costs and potential schedule delays.	Project requirements include detailed requirements for working around existing infrastructure.
Accidents may occur on an active project construction site resulting in injuries and damaged property causing project delays and reduction in productivity.	Project requirements includes details on safety measures and the design builder is required to be COR certified.
There may be unknown conditions that may be associated with reusing existing facilities.	The DB agreement includes mechanism to deal with unforeseen conditions of existing facilities.
Unknown existing conditions related to geotechnical, environmental, and hazardous material may be encountered during construction causing schedule delays and additional costs.	Geotechnical investigations and environmental impact assessments are being carried out prior to construction to minimize unknowns.
Mitigated:	
Risk of failure of the Main Street Interceptor during construction.	A steel liner was installed within the Main Street Interceptor to minimize the risk of the interceptor failing during construction.
The existing automation system requires migration to an updated automation system as it is at end of life. Due to the age, there may be unforeseen circumstances resulting in quality issues, schedule delays and operational impacts.	This risk is best handled by the City; as a result, the scope was separated as a stand alone design bid build project. This risk also requires knowledgeable and qualified personnel. As part of Phase 2 of their existing contract, the design consultant will carry out the work due to their qualifications and extensive knowledge and experience on the existing automation system.
Closed:	
Potential for insufficient budget to complete the NEWPCC Primary Clarification Upgrade Project.	City awarded a new tender with a revised scope of work. A budget amendment or deferral of project was not required.
Bid prices for other contracts within the Headworks Facilities budget may be higher due to existing market conditions as result of the pandemic.	All major procurements have been awarded. A budget amendment or deferral of project was not required.
The standard good equipment provider has stated a significantly increased price and delivery timeline for motor control centers (MCC).	The standardized agreement for motor control centres was renewed after the award of the Headworks project and has affected the standardized pricing. An over-expenditure was considered in November 2024 for this item.
Differing ground conditions as defined by the Design Build Agreement were encountered in two of the deep shafts. As a result, the contractor is claiming an increase in costs and a delay.	An over-expenditure was approved for the additional costs associated with the differing ground conditions. The schedule substantial completion date has been revised to account for the delay.
Excavation work under the UV outfall filled with water. RRS believes it is secondary effluent. The City disagrees as sampling results are more indicative of groundwater. The City rejected the claim for costs related to additional investigations but RRS has still proceeded. RRS may come back with further claims as a relief event depending on the findings of their investigation.	Additional excavation and sampling occurred and confirmed the water encountered was groundwater.
The Public Service submitted funding application for NEWPCC Headworks DB project for the Federal and Provincial funding under the Investing in Canada Infrastructure Program based on Council approval. Delay of the funding agreement or an agreement in principle may result in loss of a construction season causing increase in project costs and schedule delays.	This risk is now closed as the ICIP funding was approved and the design build agreement was executed before the proposal validity period.
No existing legislation on odour release threshold causing potential impact and complaints from neighbors resulting in post - construction renovations or changes in operation at additional cost.	A field study with dispersion modelling has been carried out. Since this risk is mainly applicable to the NEWPCC Upgrade: Nutrient Removal Project it will be identified at the start of that project.

* Not every risk need be disclosed but those significant in nature to the project should be disclosed and monitored. Risks should be in order from higher to lower assessed risk and revised on an ongoing basis.

Financial (Update from last report)

For further information, refer to Appendix B – Financial Forecast

The City continues to work with their Insurers to determine the level of coverage for the Northwest Interceptor (NWI) failure. An additional advance of \$4 million has been approved, bringing the total insurance advance to \$7 million. Of the \$7 million approved, the City has received \$6.8 million with payments coming in pieces from Insurers.

Funding (Update from last report)

N/A

Table 4 – Project Funding Forecast

Funding Forecast			
Funding Source	Adopted Budget¹ (in millions)	Amended Budget² (in millions)	Committed (in millions)
Class of Estimate	Class 5	Class 3	Class 3
NEWPCC Upgrade:			
Power Supply			
Retained Earnings ⁷		20.03	20.03
Environmental Projects Reserve ⁷		32.25	32.25
Total Power Supply		52.28	52.28
Headworks Facilities			
Retained Earnings ⁶	87.64	87.08	87.08
External Debt ^{3, 6}	690.29	147.72	147.72
Environmental Projects Reserve ^{3, 4}	17.66	17.91	17.91
Federal Government ^{3, 5}		116.11	116.11
Provincial Government ^{3, 5}		96.75	96.75
Total Headworks Facilities	795.59	465.57	465.57
Total	795.59	517.85	517.85

¹ Council adopted budget in 2016

² On February 28, 2019 Council approved the existing project be amended to consist of three projects. Project 1: Power Supply and Headworks Facilities; Project 2: Biosolids Facilities; Project 3: Nutrient Removal Facilities.

³ In a letter dated April 1, 2021, the Province of Manitoba confirmed that funding for Headworks Project would be reduced to \$96.749 million from \$100.300 million (Province) and to \$116.111 million from \$120.373 million (Federal), resulting in an increase of \$7.813 million to the City's share of costs.

⁴ On May 27, 2021 Council approved a budget increase of \$65 million funded by \$32.5 million debt and \$32.5 million Environmental Projects Reserve.

⁵ On July 23, 2021 Federal and Provincial ICIP funding of \$212.86 million was announced for the Headworks Project.

⁶ On February 22, 2024 Council approved a budget increase of \$65 million funded by \$25 million debt and \$19.475 million Retained Earnings.

⁷ Major Capital Projects Steering Committee requested that the Power Supply project and other work considered ineligible for Provincial and Federal funding be reported separately.

Property Acquisition (Update from last report)

N/A

Stakeholder Engagements/Communications (Update from last report)

The Public Service continues to work with a number of stakeholders on this project including:

- Peguis First Nation regarding the cultural interest in the NEWPCC lands
- The Manitoba Government as the Provincial regulator
- The International Institute for Sustainable Development, Lake Winnipeg Foundation, and Lake Winnipeg Indigenous Collective as environmental stakeholders

Audit (Update from last report)

The Public Service is actively implementing a number of audit recommendations. The quarterly Implementation of Audit Recommendation Reports can be found here:

<https://winnipeg.ca/audit/reports.stm#tab-QuarterlyReports>

KPMG continues to develop a fit-for-purpose governance structure for the NEWPCC Upgrade projects. KPMG considered input from the Public Service and City Councillors while developing the new governance structure. The draft report from KPMG was received in Q2 2025 and will be finalized in Q3 2025. The proposed governance structure is anticipated to be considered by Council in Q4 2025.

Subsequent Events after Report Period End Date

An over-expenditure report for the Owner's Advocate in the amount of \$2,043,769.24 was approved by the Director of Water and Waste on August 6, 2025, for work funded by the Headworks Facilities and the Biosolids Facilities projects. The approval included \$803,504.00 funded by the Headworks Facilities capital budget for increased coordination between the Integrator and Construction contracts and extension of the project schedule on the DCS Migration project.

A budget amendment and contract over-expenditure report for \$47.5 million will be considered by Council on September 25, 2025. If approved, it will resolve a dispute related to a contract relief event for covid related cost escalation. It will also resolve other pending contract claims related to outfall condition, PLC panel changes, surge well elevations, loop drawings, and permit delays. A schedule extension is included as part of the resolution. The extension does not impact the Biosolids or Nutrient Removal Facilities projects. With the extension, the new Headworks Facility is expected to be in operation in Q2 2026 and completed in Q4 2026.

An additional over-expenditure report will be forthcoming for the Headworks Facilities project for the provision of temporary power and the relocation of a soil stockpile.

FINANCIAL IMPACT

Financial Impact Statement**Date:** 2-Sep**Project Name:****NEWPCC Upgrade: Power Supply and Headworks Facilities,****Project ID: 20310011304, 2031001310 and 203110013B****Quarterly Project Status Report No. 40****For the Period Ended July 31, 2025****COMMENTS:**

Financial forecast for the NEWPCC Upgrade Projects can be found in Appendix B.

Lucy Szkwarek, FCPA, FCGA

Lucy Szkwarek, FCPA, FCGA

Manager of Finance & Administration

CONSULTATION

This Report has been prepared in consultation with:

N/A

OURWINNIPEG POLICY ALIGNMENT

This report aligns OurWinnipeg 2045, Policy 2.17 Regional Water Resource Management, by addressing long-term capacity of water-related systems including wastewater management. Objective: Protect and value ecosystems as essential components to quality of life through municipal activities and urban environment.

WINNIPEG CLIMATE ACTION PLAN ALIGNMENT

Consideration was given as to whether this report connects to the Winnipeg Climate Action Plan (CAP), and it was determined that the CAP is not applicable to this specific report.

WINNIPEG POVERTY REDUCTION STRATEGY ALIGNMENT

Consideration was given as to whether this report connects to the Winnipeg Poverty Reduction Strategy (PRS) and its Goals and Objectives, and it was determined that the PRS is not applicable to this specific report.

SUBMITTED BY

Department: Water and Waste Department
Division: Engineering Services Division
Prepared by: Linda McCusker, Project Director
Date: September 18, 2025

Appendices

Appendix A – Key Project Facts

Appendix B – Financial Forecast

Appendix C – Key Project Events (History)

Appendix D - Funding

Appendix A – Key Project Facts

Appendix A – Key Project Facts	
Project Name	NEWPCC Upgrade: Power Supply & Headworks Facilities
Business Owner (Department)	Water and Waste Department
Project ID	2031001304, 2031001310, and 203110013B
Project Sponsor	Director of Water and Waste
Department Responsible for Project Delivery	Water and Waste Department
Consultant Engineer (Company Name)	KGS Group Consulting Engineers and AECOM Canada Ltd.
Adopted Budget	\$795.95 Million
Class of Estimate (Adopted)	Class 5
Range of Estimate (Adopted)	-50% to +100% \$397.80 million to \$1,591.18 million
Amended Budget	\$517.855 million
Class of Estimate (Amended)	Class 3
Range of Estimate (Amended)	-50% to +30% \$414.284 million to \$673.212 million
<u>Project Scope</u>	
The Power Supply and Headworks Facilities projects will address end-of-life equipment at the front end of the plant and upgrade the power supply to provide adequate power capacity for the NEWPCC Upgrade Projects. The Project design will accommodate expected influent flows and loads to 2037 and take into account future regulatory trends and long term planning to year 2067.	
Major Capital Projects Advisory Committee Membership:	
- Joseph Dunford, Chief Administrative Officer - Tracy Graham, Chief Financial Officer - Rob Taylor, Director of Assets and Project Management - Danny Tooth, Acting Manager of Capital Projects Oversight and Reporting - Tim Shanks, Director of Water and Waste - Cynthia Wiebe, Manager of Engineering Services, Water and Waste - Lucy Szkwarek, Manager of Finance and Administration, Water and Waste - Linda McCusker, Project Director, Winnipeg Sewage Treatment Program, Water and Waste	

Appendix B – Financial Forecast

Appendix B - North End Sewage Treatment Plant (NEWPCC) Upgrade Projects Financial Forecast
As of Jul 31, 2025

Project Component Deliverables	Budget (in 000's)			Expenditure Forecast (in 000's)								Surplus (Deficit) From Amended Budget	Variance Last Report	Change in Variance
	Adopted Budget	Council Approved Change	Amended Budget ¹	Actual Costs To Jul 31, 2025	Projected Costs					Total Forecasted Costs				
					2025	2026	2027	2028	2029					
Power Supply & Headworks Facilities Project ²														
Engineering, Design and Other	\$ 57,196	\$ (2,959)	\$ 54,237	\$ 43,588	\$ 2,531	\$ 5,519	\$ 3,364	\$ 384	\$ -	\$ 55,386	\$ (1,149)	\$ (2,021)	\$ 872	
Construction	\$ 621,011	\$ (225,299)	\$ 395,712	\$ 305,611	\$ 53,013	\$ 44,819	\$ 12,792	\$ 1,369	\$ -	\$ 417,604	\$ (21,892)	\$ (37,459)	\$ 15,567	
Land Acquisition	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Internal Financing/Overhead Costs	\$ -	\$ 21,718	\$ 21,718	\$ 5,112	\$ 12,289	\$ 2,377	\$ 379	\$ 862	\$ -	\$ 21,019	\$ 699	\$ 1,212	\$ (513)	
Contingency	\$ 117,383	\$ (71,195)	\$ 46,188						\$ 23,846	\$ 23,846	\$ 22,342	\$ 38,268	\$ (15,926)	
Total Project Budget	\$ 795,590	\$ (277,735)	\$ 517,855	\$ 354,311	\$ 67,833	\$ 52,715	\$ 16,535	\$ 2,615	\$ 23,846	\$ 517,855	\$ -	\$ -	\$ -	

% of Project Budget Spent³	
Power Supply & Headworks Facilities	68%

¹Amended budget and actual costs to date have been agreed to the City's general ledger and Monthly Capital Expenditures Report and include closed budget years

²On May 27, 2021, Council approved a budget increase of \$65M; On February 22, 2024 Council approved a budget increase of \$44.475M

³Actual costs to date / Amended budget

Power Supply & Headworks Facilities Amount in '000's			
Project ID	Project Year	Amended Budget	Costs to Date
2031001304	2004	\$214	\$214
2031001310	2010	\$305	\$305
203110013B	2012 – 2021	\$517,336	\$353,792
Total Combined Project Bud		\$517,855	\$354,311
Breakdown by Project			
Power Supply Project ⁴		\$52,281	\$52,281
Headworks Facilities Project		\$465,574	\$302,030
⁴ Does not appear in the Capital Expenditures Monthly Report as the funds have been expended and it is designated as a closed Project ID.			
⁵ Headw orks Facility Project segregated for reporting purposes.			
⁶ Cost incurred before ICIP project approval date of May 28, 2021 are deemed ineligible.			

Appendix C – Key Project Events (History)

THE PROJECT

The goal of this project is to upgrade the North End Sewage Treatment Plant (NEWPCC) to meet new Regulatory Licence requirements regarding the maximization of nutrient removal and biosolids reuse and new effluent limits for nitrogen and phosphorous. The upgrade will also add wet weather treatment capability; add a new facility to treat the sludge from all three plants; and replace end-of-life equipment. The Project design will accommodate expected influent flows and loads to 2037. It will also consider future regulatory trends and long-term planning to the year 2067 to facilitate effective process or facility modifications should they be required.

A new power sub-station is required at the NEWPCC to accommodate the additional power demand of the upgrades at the facility. The power supply upgrade was delivered as a separate project from the main NEWPCC upgrade to allow for early procurement of long-lead items, such as transformers, to ensure that the electrical power upgrade is available for the new processes when needed.

The delivery method for NEWPCC Power Supply and Headworks Facilities Upgrade Projects is largely design build (DB) with a small scope being procured as design bid build (DBB).

The upgraded facility will have an economical whole-life cost and be an efficient and safe workplace for operational personnel. In addition, the plant must operate continuously during the work and continue to meet current effluent limits. The impact of construction and commissioning to the capacity of the treatment facility will be minimized as much as possible.

In 2003 Clean Environment Commission Hearings on the City's wastewater collection and treatment systems, Manitoba Conservation and Water Stewardship (now Manitoba Sustainable Development, the Regulator) notified the City that it intended to issue a licence for the NEWPCC that would require control of nutrients discharged to the Red River.

On May 16, 2007, Council authorized the Chief Administrative Officer to finalize the terms and conditions of a contribution agreement with the Government of Canada and the Province of Manitoba for funding of Wastewater Treatment Plant upgrades under the Canada Strategic Infrastructure Fund (CSIF).

On November 19, 2008, City Council authorized the Winnipeg Public Service to:

- Begin the procurement of a strategic partner that could bring private sector experience to the design, construction, finance, and potentially the operation of the North and South End Sewage Treatment Plants as well as potential operation of the West End Sewage Treatment Plant
- Authorize the Chief Administrative Officer to approve and issue the Request for Expressions of Interest followed by a Request for Qualifications and the Request for Proposals

On May 6, 2009 the Environment Act Licence (EAL) No. 2684 RRR was issued for the NEWPCC.

On May 19, 2010 Council:

- Directed the Chief Administrative Officer to approve and issue a Letter of Notification to Veolia in order to immediately begin design and construction of the South and North End Sewage Treatment Plant upgrades and expansion and biosolids handling facility
- Delegated the authority to the Chief Administrative Officer to “approve contract awards for upcoming South and North End Sewage Treatment Plant capital projects where the value of each contract does not exceed \$30 million and there are sufficient funds in a budget approved by Council

On June 16, 2011, the Save Lake Winnipeg Act amending sections of the Water Protection Act (Act) came into effect. Section 4.2(3) of the amended Act required the City to submit a plan that details how the City will comply with subsections 4.2(1) and (2).

The NEWPCC Upgrading Plan was submitted to the Regulator in compliance with Section 4.2(3) of the amended Water Protection Act on June 15, 2012. The Regulator approved the Upgrading Plan on October 2, 2012. The Department submitted the NEWPCC Master Plan and the revised NEWPCC Master Plan on September 27, 2013 and April 28, 2014 respectively. The Master Plan was approved by the Regulator on May 29, 2014.

In the Regulator’s Licence alteration Letter dated December 30, 2014, the project completion date was specified as December 2019. However, the Regulator was notified on June 23, 2016 that the project schedule was not achievable. Manitoba Sustainable Development acknowledged receipt of this notice on August 16, 2016 and indicated they had “no concerns at this time.” Regular schedule updates and progress reports continue to be submitted to Manitoba Sustainable Development on a quarterly basis.

In the second quarter of 2017, the Department reported that an updated conceptual design project cost estimate was received from the design consultant. This new information indicated costs over a billion dollars, much higher than the currently approved budget of \$795.59 million (Class 5 estimate).

The Adopted Budget, \$795.59 million, was based on a Class 5 cost estimate which has an Association for the Advancement of Cost Engineering (AACE) expected accuracy range of -50% and + 100% or \$397.80 million to \$1,591.18 million.

On February 28, 2019, Council approved the recommendation to split the planned NEWPCC Upgrade Project into three distinct projects and execute them based on process criticality and available funding. The recommendation to Council requested approval to proceed with the project scope for Power Supply and Headworks Facilities. Other levels of Government funding for the remaining projects to complete the plant upgrade are required.

The three capital projects and Class 3 cost estimates (including interest charges) to complete the NEWPCC Upgrade are identified as:

1. NEWPCC Upgrade: Power Supply and Headworks Facilities - \$473 million
2. NEWPCC Upgrade: Biosolids Facilities - \$1.035 billion (revised from \$553 million)

3. NEWPCC Upgrade: Nutrient Removal Facilities - \$828 million

The total budget to upgrade NEWPCC is approximately \$1.854 billion; based on a class 3 cost estimate which has an AACE expected accuracy range of -20% and +30% or \$1.48 billion to \$2.41 billion. This amount includes an estimated \$155 million in interest charges to be capitalized during the construction period. The total budget was updated from \$1.789 billion to \$1.854 billion as a result of the budget amendment increase of \$65 million for the NEWPCC Upgrade: Power Supply and Headworks Facilities Capital Budget. The budget increase was approved by Council on May 27, 2021.

On December 5, 2019, a response was received from Manitoba Conservation and Climate, Environmental Approvals Branch with regards to the Notice of Alteration (NOA) for NEWPCC submitted by the City July 30, 2019. The response indicated that the NOA was not approved and that the City will be out of compliance with the Environmental Act Licence 2684 RRR and with the phosphorus compliance plan pursuant to the Water Protection Act in January 1, 2020. In the absence of an approved phosphorus compliance plan, the City was required to participate in two project committees namely; the Project Steering Committee and Project Advisory Committee.

On September 26, 2019, Council approved a 2019 capital project budget of \$552.712 million, for NEWPCC Upgrade: Biosolids Facilities, subject to final written confirmation of federal and provincial funding satisfactory to the Chief Financial Officer.

On January 30, 2020, Council approved \$15.334 million from the Biosolids Facilities Budget to commence engineering services.

On February 19, 2020, Minister Squires sent a letter to the Mayor indicating that additional funding of \$21.8 million is an initial payment to be allocated to the NEWPCC Upgrade Project under any potential ICIP arrangements, along with the previous allocation of \$34.4 million for a total of \$56.2 million.

On September 20, 2020 Council approved that the City agree to transfer \$321.24 million of Federal Government's funding under the ICIP from the Public Transit Infrastructure Stream to the Green Infrastructure Stream to fund the Federal Government's funding portion for the NEWPCC Upgrade: Headworks Facilities Project and the NEWPCC Upgrade: Biosolids Facilities Project as per the Province of Manitoba's requirement, subject to certain conditions.

The design build of the NEWPCC Power Supply Project was substantially completed in Q4 2020.

On March 25, 2021, Council adopted that:

- The Government of Canada and the Province of Manitoba be requested to provide confirmation of approval of ICIP for the NEWPCC Upgrade Projects: Headworks Facility Project and Biosolids Facility Project
- The Province of Manitoba be requested to confirm the City's recommended procurement methodology for the Biosolids Facility Project
- The Public Service be directed not to proceed with detailed engineering design for the Biosolids Facility design-bid-build project, in the amount of \$15.334 million, as approved

by Council on January 30, 2020, until such time as the confirmation requested in recommendations 1 and 2 have been received

In a letter dated April 1, 2021, the Province of Manitoba confirmed that funding for the Headworks Project will be reduced to \$96.749 million from \$100.300 million (Province) and to \$116.111 million from \$120.373 million (Federal). This means that the City's share of costs will increase by \$7.813 million as a result of the owner advocate costs incurred.

On May 18, 2021, the Executive Policy Committee concurred in the recommendation of the Public Service, as amended, that:

- The current Operation and Maintenance of Winnipeg's sewage treatment utility shall remain public and that the Operation and Maintenance not be included as part of the P3 market sounding
- That a single source contract be approved with Deloitte LLP of up to \$400 thousand to conduct a market sounding for a Design, Build and Financing P3 for the Biosolids and Nutrient Removal facilities projects of the NEWPCC upgrades
- That the Public Service report back to Council on the results of the market sounding and analysis

On May 27, 2021, Council approved:

- Red River Solutions, an Aecon Oscar Renda Joint Venture, as the Preferred Proponent for the Design Build of the NEWPCC Upgrade: Headworks Facilities Project
- A budget amendment increases of \$65 million for the NEWPCC Upgrade: Power Supply and Headworks Facilities Capital Budget, to be funded 50/50 through utility rates and debt financing
- Review of the AACE Class 3 cost estimates for Biosolids and Nutrient Removal Facilities projects and refer any increases to the 2022 capital budget process; and to update the ten-year water and sewer financial plan and report back to Council in October 2021

On May 31, 2021, the NEWPCC Upgrade: Headworks Facilities was approved for Federal and Provincial funding under the ICIP – Green Infrastructure – Environmental Quality Sub-stream, with Federal contributions up to \$116.111 million and Provincial Contributions up to \$96.750 million. Accordingly, the agreement for the design build of the NEWPCC Upgrade: Headworks Facilities was executed with RRS on June 11, 2021.

On July 23, 2021, a formal press release regarding the approval of funding through the ICIP application for the NEWPCC Upgrade: Headworks Facilities was carried out at the NEWPCC. All three levels of government were in attendance.

A joint news release by the Province of Manitoba and the City was issued on November 24, 2021 regarding the advancement of the City's funding application to the Federal Government of Canada for the NEWPCC Upgrade: Biosolids Facilities Project through the ICIP.

On February 24, 2022, Council approved that future tenders for the NEWPCC Upgrade Projects require bidders to include the following as part of their bid submissions:

- Specific information on its intended partnerships or self-directed plans to secure a skilled project labour workforce
- Estimated numbers of and classifications of skilled tradespersons to be employed
- Specific commitments to engage skilled labour including targets for employment of Indigenous peoples and other under-represented groups within the Manitoba market

Proposed plans and partnerships with organizations to promote employment and training initiatives for Indigenous and other under-represented groups within the Manitoba market.

On July 21, 2022 the City Council approved:

1. That the NEWPCC Upgrade: Biosolids Facilities Project be delivered using a Design Build procurement model
2. That the revised cost estimate for the NEWPCC Upgrade: Biosolids Facilities Capital Budget be referred to the 2024-2027 Multi-Year Budget Process
3. That the \$15,334,000.00 2019 Capital Budget for the NEWPCC Upgrade: Biosolids Facilities, approved on January 30, 2020, as part of the 2020-2023 Water and Sewer Rate Report, be funded from the Environmental Projects Reserve rather than external debt

On August 16, 2022, a formal press release regarding the approval of funding through the ICIP application for the NEWPCC Upgrade: Biosolids Facilities was carried out at the NEWPCC. All three levels of government were in attendance.

On February 22, 2024, Council approved a \$44.475 million budget increase for the NEWPCC Upgrade: Power Supply and Headworks Facilities project due to costs associated with the Northwest Interceptor failure. The budget amendment brings the total project cost to \$517.855 million.

On February 27, 2025, Council approved delegation of authority to approve contract over-expenditures for the NEWPCC Upgrade: Power Supply and Headworks Facilities projects and over-expenditures for the Owner's Advocate Engineer (RFP No. 182-2015). This report followed from audit recommendations 2: Authority and Accountability and 40: Change Order Approval timelines.

RISKS AND RISK MITIGATION STRATEGIES

There are risks associated with the cost and schedule for a project that is this large and complex especially at the early stages. In addition, the final bid amounts for projects are unknown until the project agreement is finalized with the Design Builder.

An ongoing risk management strategy has been implemented for both the NEWPCC Upgrade Power Supply and Headworks Facilities Projects. It includes a proactive process of identifying risks, performing qualitative and quantitative risk analyses, creating response plan strategies, and ongoing monitoring. The risk management process is an active part of the management of the projects. The projects will also incorporate structured Hazard and Operability Analysis and a Construction Hazard Assessment Implication Review. Since detailed design and construction

will be carried out through a DB contract, the Winnipeg Sewage Treatment Program will be identifying and transferring as much risk as reasonable to the Design Builder.

The Risk Registers for each of the Projects contain cost and schedule risks associated with design, procurement, construction, operation, and unknown events. This is reviewed and updated regularly.

Appendix D

North End Sewage Treatment Plant (NEWPCC) and Winnipeg Sewage Treatment Program (WSTP)

1) Funding for the NEWPCC is as follows:

NEWPCC Upgrade (in \$millions)	Total Cost	Funded to Date		Funding Pending		Total Funding		City Share of Costs
		Canada	Manitoba	Canada	Manitoba	Canada	Manitoba	
Funding by Project								
Power Supply and Headworks Facilities	\$ 517.85							
Power Supply and Other Ineligible	52.28	-	-	-	-	-	-	\$ 52.28
Headworks Facilities	421.10	\$ 94.09	\$ 78.40	\$ 22.02	\$ 18.35	\$ 116.11	\$ 96.75	\$ 208.24
Headworks Facilities - NWI* Failure	44.47	-	-	-	-	-	-	44.47
Biosolids Facilities	1,035.00	-	\$ -	200.87	\$197.38	200.87	197.38	636.75
Funding Dependent								
Nutrient Removal Facilities	1,491.03	-	-	-	-	-	-	28.89
Estimated Program Costs	\$ 3,043.88	\$ 94.09	\$ 78.40	\$ 222.89	\$ 215.73	\$ 316.98	\$ 294.13	\$ 970.63

2) Funding for the Winnipeg Sewage Treatment Programs is as follows:

WSTP All Projects (in \$millions)	Total Cost	Funded to Date		Funding Pending		Total Funding		City Share of Costs
		Canada	Manitoba	Canada	Manitoba	Canada	Manitoba	
WEWPCC Biological Nutrient Removal ¹	\$ 33.23	\$ 5.07	\$ 8.19	-	-	\$ 5.07	\$ 8.19	\$ 19.97
NEWPCC Centrate and UV Disinfection ¹	52.08	5.59	14.54	-	-	5.59	14.54	31.95
SEWPCC Nutrient Removal/Expansion ⁵	385.60	37.04	15.98	5.30	1.10	42.34	17.08	326.18
NEWPCC Power Supply and Headworks ²	517.85	94.09	78.40	\$ 22.02	\$ 18.35	116.11	96.75	304.99
NEWPCC Biosolids ³	1,035.00	-	-	200.87	197.38	200.87	197.38	636.75
NEWPCC Nutrient Removal ⁴	1,491.03	-	-	-	-	-	-	28.89
Estimated Program Costs	\$ 3,514.79	\$ 141.79	\$ 117.11	\$ 228.19	\$ 216.83	\$ 369.98	\$ 333.94	\$ 1,348.73

¹ WEWPCC Biological Nutrient Removal and NEWPCC Centrate and UV Disinfection have been completed.

² On July 23, 2021 the Federal and Provincial governments announced \$212.86 million in Investment in Canada Infrastructure Program (ICIP) funding for the NEWPCC Upgrade Power Supply and Headworks project. \$116.11 million in Federal and \$96.75 million in Provincial funding.

³ On August 16, 2022 the Federal and Provincial governments announced an additional \$368.25 million in ICIP funding for the NEWPCC Upgrade Biosolids project. \$200.87 million in Federal and \$167.38 million in Provincial funding. On March 28, 2025, the Provincial government signed an agreement for an additional \$30 million in SIB funding for the NEWPCC Upgrade Biosolids project.

⁴ NEWPCC Upgrade Nutrient Removal project has not been approved. The cost estimate for the NEWPCC Upgrade Nutrient Removal project was updated from \$828.06 million to \$1,491.03 million in 2025. An additional \$10.894 million in City funding was approved for the NEWPCC Upgrade Nutrient Removal project by Council on March 27, 2025.

⁵ An additional \$10 million in City funding was approved for the SEWPCC Nutrient Removal/Upgrade project by Council on May 2, 2025.