Minute No. 509
Minutes – Council – September 25, 2025

Report – Standing Policy Committee on Water, Waste and Environment – September 9, 2025

Item No. 2 Winnipeg Sewage Treatment Program 2024 Annual Report Program Agreement Between The City of Winnipeg and VWNA Winnipeg Inc. (Veolia)

COUNCIL DECISION:

Council concurred in the recommendation of the Standing Policy Committee on Water, Waste and Environment and adopted the following:

1. That this report be received as information.

Report – Standing Policy Committee on Water, Waste and Environment – September 9, 2025

DECISION MAKING HISTORY:

Moved by Councillor Eadie,

That the recommendation of the Standing Policy Committee on Water, Waste and Environment be adopted by consent.

Carried

Councillors Orlikow and Wyatt were absent from the vote on the above motion.

EXECUTIVE POLICY COMMITTEE RECOMMENDATION:

On September 16, 2025, the Executive Policy Committee concurred in the recommendation of the Standing Policy Committee on Water, Waste and Environment and submitted the matter to Council.

STANDING COMMITTEE RECOMMENDATION:

On September 9, 2025, the Standing Policy Committee on Water, Waste and Environment concurred in the recommendation of the Winnipeg Public Service and submitted the matter to the Executive Policy Committee and Council.

ADMINISTRATIVE REPORT

Title: Winnipeg Sewage Treatment Program 2024 Annual Report Program Agreement Between The City of Winnipeg and VWNA Winnipeg Inc. (Veolia)

Critical Path: Standing Policy Committee on Water, Waste and Environment – Executive Policy Committee – Council

AUTHORIZATION

Author	Department Head	CFO	CAO
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EXECUTIVE SUMMARY

This annual report includes a summary of the accomplishments and financial results that were realized in 2024, the 14th year of the 30-year Winnipeg Sewage Treatment Program (WSTP), as well as the plans and objectives that have been set for 2025. Veolia personnel augment the City's team and bring worldwide expertise to the WSTP.

The WSTP day-to-day operations are governed by the Management Team (MT). The MT provides advice and recommendations on the WSTP activities to the Leadership Team (LT) and the Director of the Water and Waste Department (Director). The City retains full ownership and control of the sewage treatment plant facilities. The membership of the MT and LT are attached as Appendix A.

In 2024, the WSTP continued its focus on the delivery of the major capital projects, implementation of maintenance strategies, and readiness for operation of the new infrastructure.

In 2025, the WSTP will build on the previous years' work with continued focus on delivery of capital projects and operations and maintenance readiness.

RECOMMENDATIONS

That this report be received as information.

REASON FOR THE REPORT

A 30-year program agreement with VWNA Winnipeg Inc. (Veolia) was executed on April 20, 2011. The Agreement requires the city to report annually on results of the Winnipeg Sewage Treatment Program to Council.

IMPLICATIONS OF THE RECOMMENDATIONS

There are no implications with receiving this report as information.

HISTORY/DISCUSSION

The City of Winnipeg (City) operates three sewage treatment plants:

- North End Sewage Treatment Plant (NEWPCC)
- South End Sewage Treatment Plant (SEWPCC)
- West End Sewage Treatment Plant (WEWPCC)

On April 20, 2011, the City entered into a program agreement with VWNA Winnipeg Inc. (Veolia) (the Agreement). The scope includes advice on operations and capital upgrades at the City's three sewage treatment plants for the duration of 30 years. The City retains full ownership and control of the sewage treatment plant facilities.

The Winnipeg Sewage Treatment Program (WSTP) day-to-day operations are governed by the Management Team (MT), Leadership Team (LT), and the Director of Water and Waste (Director). Within the City delegated authority, it is the Director who approves all final decisions related to the WSTP. The Annual report details the progress made in 2024 and the Annual Program Plan (APP) details the goals and deliverables established for 2025. Each of these are described herein (see Appendix A for the current membership of the MT and LT).

2024 ANNUAL WINNIPEG SEWAGE TREATMENT PROGRAM REPORT (WSTP)

1. Program Management

The WSTP strengthened its organization over the past year by hiring several key individuals, including project managers for two of the major projects currently being undertaken.

The City's Audit Department engaged a third party to complete an audit of the NEWPCC Upgrade Projects. The audit, conducted by KPMG, evaluated the existence, effectiveness, and adequacy of controls related to the project governance and oversight, project leadership and organization, commercial strategy and management, and the overall project delivery. While the audit identified many recommendations for improvement, it also recognized key strengths within the WSTP such as contract strategies, dedicated project teams, and team commitment. The WSTP is actively addressing the recommendations in the report.

2. Compliance, Operation, and Maintenance Update

2.1. Compliance

SEWPCC: Following the commissioning of the fermenters, thickeners, and biofilters, the plant has been meeting biological phosphorous and nitrogen levels required by the environmental licence. E. coli exceedances were observed at the start of the year due to a leak in the Ultraviolet (UV) Weir Gate on the bypass but were resolved in early 2024.

NEWPCC: Licence compliance requirements were generally met, except for total phosphorous levels. Phosphorous compliance will not be achieved until all upgrade projects are completed. The Interim Phosphorous Removal (IPR) project is expected to reduce phosphorous levels in the final effluent, however not to levels stipulated in the licence. Multiple E. coli exceedances were reported which were attributed to the impacts of IPR operation and the need for UV system replacement.

2.2. Operation and Maintenance

Staff completed a refurbishment of the sequencing batch reactor (SBR) at NEWPCC and continued to provide support to the capital projects, particularly with optimization of the IPR project, commissioning and tie in planning with NEWPCC Headworks, and ongoing construction and commissioning activities at SEWPCC.

In 2024, progress was made in delivering the maintenance strategy including:

- Continuing the upload of new assets received under the SEWPCC upgrade project into the Computerized Work Management System prior to each area handover.
- Implementing regular preventive maintenance on SEWPCC areas that were handed over in 2024 including the headworks facility.
- Preparing for regular preventive maintenance on SEWPCC areas yet to be handed over.
- Continuing the multi-year contract to provide Medium Voltage (12.47kV to 66kV) preventive maintenance services at both NEWPCC and SEWPCC power supply switchyards, which requires specialized electrical power contractors.
- Consolidating various performance metrics to monitor the maintenance of the three wastewater treatment plants.

3. Project Updates

Upgrades to the NEWPCC for licence compliance and reliability are being delivered in three major projects:

- Project 1 - NEWPCC Upgrade: Power Supply Upgrade (PSU) and Headworks Facilities
- Project 2 - NEWPCC Upgrade: Biosolids Facilities
- Project 3 - NEWPCC Upgrade: Nutrient Removal Facilities (NRF)

In addition, an IPR project was initiated ahead of the NEWPCC upgrades completion to reduce phosphorous levels while the upgrades occur.

Upgrades to the SEWPCC for licence compliance and reliability are being delivered in four main contracts. Contracts 1, 2, and 3 have achieved Total Performance. Contract 4, the final phase of the project, is ongoing.

The Asset Refurbishment and Replacement Program (ARRP) includes several projects required to maintain current levels of service during the sewage treatment plant upgrades including:

- NEWPCC Return Activated Sludge (RAS) Pipe Refurbishment
- NEWPCC Boiler #5 Replacement
- NEWPCC SBR Aeration Grid Replacement
- NEWPCC UV Transformer Refurbishment/Replacement
- NEWPCC Secondary Clarifier Sludge Blanket Detection
- Perimeter Road Pumping Station, Pump 1 and 2 Equipment Replacement & Electrical Upgrades
- SEWPCC Chiller Replacement
- NEWPCC Spiral Heat Exchanger Replacements for Digester Tank Nos. 9-14
- WEWPCC Grit and Screening Improvements
- SEWPCC/WEWPCC Sludge Holding Tanks Refurbishment

Updates for the active projects for 2024 are provided below.

3.1. NEWPCC Upgrade: Power Supply Upgrade (PSU) and Headworks Facilities

The upgrade of the NEWPCC Headworks Facility ensures reliability through the replacement of some of the oldest wastewater treatment infrastructure and processes in the city. The work will also provide improved grit and screening removal to the standard required by the advanced wastewater treatment technologies to be provided for the Biosolids and NRF projects. The NEWPCC Upgrade PSU and Headworks Facilities include:

PSU project:

- The warranty period of the project was extended beyond April 2024 due to ongoing defects in the work

Headworks Facilities project:

- The differing ground conditions and failure of the Northwest Interceptor caused a significant delay to the project schedule. A revised schedule that incorporates the delay has been accepted. To date, no impacts to the Biosolids or NRF projects have been identified, however, this risk continues to be monitored
- A steel sleeve was installed into the Main Street Interceptor. This scope of work was undertaken to mitigate the risk of failure of the existing infrastructure
- Significant progress was made throughout the year on civil works, installation of long lead equipment, and on the building envelope systems

- A notice of potential relief event was received for cost increases for labour, material, equipment, and subcontractors. Review with support from external legal and contract experts is ongoing
- The final Issued for Construction design drawings were submitted for approval

Distributed Control System Migration project:
- Contracts were awarded to the Integrator and Construction contractor
- Preparatory work, including programming development, server programming, and setup occurred

Primary Clarifier Upgrade project:
- Redesign of the new Primary Clarifier Scum building and preparation of the construction tender occurred.

UV Upgrade project:
- A contract for the supply of a new UV system was awarded
- Design of the new UV Facility and preparation of the construction and installation tender occurred

3.2. NEWPCC Upgrade: Biosolids Facilities

The Biosolids Facilities Project will upgrade biosolids treatment at NEWPCC, replace end-of-life equipment, address regulatory requirements related to the recovery of nutrients, and maximize biosolids reuse. This project includes new digesters and sludge handling facilities. Due to the capacity limitations of the current digesters, the Biosolids Facilities project is critical to support growth in the City and the capital region. In 2024, the following was undertaken:

- The procurement process of the Progressive Design Build (PDB) was successfully completed. The project team executed the Development Phase Agreement in September 2024 with Red River Biosolids Partners, a consortium of AECON, Oscar Renda, MWH Constructors, Stantec, and Hatch.
- Following questions raised by industry at the Standing Policy Committee on Water, Waste and Environment, the project team demonstrated that the procurement process was conducted in a fair and transparent manner. The recommendation of the named preferred proponent was approved.
- The Start-Up Period for the Development Phase Agreement began in September 2024. The Start-Up Period included activities such as chartering, preparing work plans, and setting up templates and procedures to be used in the Preliminary Design Period.

- The NEWPCC Biosolids project sought additional funding for the $483 million budget increase that was approved in 2023. The city continues to work with Provincial and Federal governments for additional cost sharing opportunities.

- The NEWPCC Piping Installation, Soil Remediation, and Site Compound Development project is an early works contract for the Biosolids Facilities project. The tender was awarded in October 2024.

- Detailed design for the NEWPCC Land Drainage Sewer project, which is an early works contract for the Biosolids Facilities project, occurred.

3.3. NEWPCC Upgrade: Nutrient Removal Facilities (NRF)

The NRF project will provide enhanced nutrient removal and may include biological nutrient removal reactors, secondary clarifiers, as well as primary sludge fermenters and waste activated sludge.

- The Enhanced Preliminary Design, including a revised Class 3 cost estimate with associated third-party integrated cost, schedule, and risk analysis which was used to develop a current class 3 estimate of $1.491 billion was completed.

- An initial round of market soundings was conducted to solicit input from the market on risk tolerance, constructability, delivery model, and terms of the contract.

- Utilizing input from the market sounding and technical experts, a delivery model workshop was held. A PDB model was recommended for the delivery of the project.

- Discussions with the regulator regarding the feasibility of a 2030 completion date occurred.

3.4. Interim-Phosphorous Reduction Project (IPR)

The IPR project is being implemented ahead of the planned NEWPCC upgrades. The IPR project is expected to reduce phosphorous levels in the final effluent, however not to levels stipulated in the licence.

- Construction and commissioning of the project's major components was completed. This included expanding the railcar shelter, building a new sodium hydroxide chemical storage facility, installing bulk chemical storage tanks, and establishing remote injection points with associated day tanks.

- Process optimization commenced in June 2024, introducing ferric chloride dosing at various new points throughout the plant. The optimization strategy involves testing different dosages at multiple locations within the facility. The optimization approach is deliberately slow and cautious to prevent any negative effects from ferric chloride dosing on plant operations.

- Early in the optimization phase, an impact on the UV disinfection system led to E. coli compliance issues. This required lowering the ferric dosage at a location to ensure E. coli compliance, maintaining overall plant performance.

3.5. SEWPCC Upgrade and Expansion Project

The SEWPCC Upgrade and Expansion Project is being constructed through four main contracts. Contracts 1, 2, and 3 have achieved Total Performance. Contract 4, the final phase of the project, is ongoing. The focus of 2024 was the installation, construction, and commissioning of the fermenters, thickeners, and biofilters.

- Remediation work on the existing High Purity Oxygen tanks due to the delamination of the Chemical Resistant Coatings (CRC) was completed.

- Construction continued on Chemical Building, Bioreactors, High-Rate Clarification, and Conversion of High Purity Oxygen Tanks to Fermenters, Thickeners, and Biofilter.
- The Headworks area was handed over from the Contractor to the City Operations and Maintenance team.

- Installation of the Odour Control System was completed with commissioning to follow.

- SEWPCC achieved full compliance with its environmental licence effluent limits following the implementation of the fermentation system. This upgrade allowed the facility to conduct nutrient removal primarily through biological processes, reducing reliance on chemical methods.

- At the start of the year, E-coli exceedances were observed in plant effluent due to a leak in the in the UV Weir Gate on the bypass. The repairs were completed in early 2024 and the plant has since been meeting effluent disinfection requirements.

- In the spring of 2024, it was identified that major pieces of equipment installed within the project had less capacity than specified. The vendor replaced the equipment, and it was reinstalled in the fall of 2024. This incident, however, resulted in significant delays to the project.

- Meeting the schedule continued to be a challenge in 2024 due to several factors including a lack of suitably qualified contractor resources.

3.6. Asset Refurbishment and Replacement Program (ARRP)

The ARRP follows the City's Asset Management framework to identify, prioritize, and manage small to medium sized projects required to maintain current levels of service during the sewage treatment plant upgrades. ARRP projects are being delivered by resources from the Water and Waste Department and Veolia.

NEWPCC RAS Pipe Refurbishment:

- This project is currently in the warranty period.

NEWPCC Boiler #5 Replacement:

- The interim boiler design was completed. The two interim boilers were installed and commissioned on natural gas.

- Communication with the authority having jurisdiction was ongoing to ensure compliance and successful approvals.

NEWPCC SBR Aeration Grid Replacement:

- The grid on the final SBR was replaced and the project was completed.

NEWPCC UV Transformer Refurbishment/Replacement:

- Construction was completed and warranty commenced.

NEWPCC Secondary Clarifier Sludge Blanket Detection:

- A consultant Request for Proposal (RFP) to complete the monitoring of clarifier sludge levels was awarded.

Perimeter Road Pumping Station, Pump 1 and 2 Equipment Replacement & Electrical Upgrades:

- Design continued and preparation of a construction contract progressed.

SEWPCC Chiller Replacement:

- Replacement HVAC equipment was ordered and construction continued.

NEWPCC Spiral Heat Exchanger Replacements for Digester Tank Nos. 9-14:

- A tender for equipment supply was awarded.

WEWPCC Grit and Screening Improvements:

- The consultant RFP for design services was awarded and design commenced.

SEWPCC/WEWPCC Sludge Holding Tanks Refurbishment:

- A consultant RFP was awarded and design commenced.

4. Capital Planning Updates

A Master Plan for the WEWPCC was initiated in 2022 with the award of an RFP for development of the plan. The outcomes of this study will indicate what future work is required to maintain service and capacity for the WEWPCC. All technical memos to support the Master Plan were finalized in 2024.

5. Biosolids Reuse Update

The City continues its multi-pronged biosolids strategy utilizing land application and soil fabrication. Together these routes provide an environmentally sound, sustainable, and cost-effective strategy for beneficial reuse of biosolids while meeting provincial regulations.

5.1. Land Application

The year 2024 marked the seventh one of the Biosolids Land Application Program which involves the annual spreading of Class B biosolids onto local farmland. Land application is an environmentally sustainable practice that supplies valuable nutrients for crop production and provides an opportunity to reuse wastewater biosolids.

To meet revised regulated phosphorus emissions limits, process modifications were made that significantly increased the rate of sludge generation at SEWPCC and of biosolids overall. The Biosolids Land Application Program successfully managed the hauling and land application of the increased volume of biosolids.

The 2024 Biosolids Land Application Program included:

- In-field stockpiling and storage of the biosolids materials on agricultural land where land application is to take place for a given year.
- Continuation of odour assessments of the biosolids storage site.
- Land application of biosolids after crop harvest onto agricultural fields at agronomic rates that matched crop uptake of nutrients.
- Fulfillment of monitoring and reporting requirements as outlined in the City's Notice of Alteration.

5.2. Soil Fabrication Program

The city continued its Soil Fabrication Program which uses biosolids, woodchips, and street sweepings to produce a soil mixture that serves as landfill top cover. This soil cover helps reduce water infiltration, erosion, and greenhouse gas emissions while restoring the land to native prairie landscape. Operationally, the Soil Fabrication Program provides an alternative to landfill disposal of biosolids in winter months when land application routes are not viable.

6. 2024 Winnipeg Sewage Treatment Program (WSTP) Key Performance Indicators (KPI) Results

2024 KPIs were evaluated in accordance with Schedule III of the Agreement.

KPI	Description	Target	Value Achieved
NEWPCC Power Supply Protection: Relay Training	To provide a detailed understanding of: • Transformer maintenance • Functions of accessory equipment related to control and protection	$117,120	$117,120

KPI	Description	Target	Value Achieved
	• How to test accessory equipment; and • Inspections and tests required and frequency.		
NEWPCC Facility Plan Update	Review and update the NEWPCC Facility Plan. The Plan, last updated in 2015, documents the plant's current state and details ongoing and future capital upgrade projects. The Plan serves as a single source of information and assists with identifying project overlaps and tie-ins. Updating is required to reflect current projects, procurement methods, and timelines.	$195,200	$195,200
Program Documents Update	Review and update WSTP documentation to: • Remove redundant content • Ensure the remaining procedures and tools represent the way the WSTP functions; and • Ensure WSTP governance activities are up to date	$117,120	$87,840
Process Control Management Plan (PCMP) Update	Review and update the PCMP to ensure it is current and relevant. The PCMP is one part of a comprehensive process management program which defines the information and communication methods that management needs to control and direct operation of unit processes. The SEWPCC Plant will be updated once the project is completed.	$146,400	$146,400
Series of Lunch and Learns	The topics for 2024 were selected based on their relevance to current subjects in the WSTP and include: • Best practices on concrete tank coatings • Program Agreement training • PDB procurement method training; and Indoor Cambi facility training	$48,800	$48,800
Class A Compost Strategy	Review the existing biosolids reuse strategy, identify possible future markets, and assess the risks and opportunities within these markets. It is important to understand the market within Manitoba to balance resale value, storage requirements, and supply chain timing.	$195,200	$146,400
Capital Projects Sampling Plan	Facilitate Wastewater Services, Environmental Standards, and Engineering to plan for increased sampling and analysis requirements for commissioning of the NEWPCC and SEWPCC Upgrade Projects and transition to long-term operations.	$156,160	$156,160
TOTALS		$976,000	$897,920

7. 2024 Financial Results

Veolia's compensation components that are earned annually include:

- Fees on aggregate program target costs
- Gain share/pain share allocations
- Meeting key performance indicators; and
- Interest adjustments

Compensation earnings in any given year are credited to the Earnings At Risk Account (EARA) and earned interest. EARA categories are itemized in the following table.

EARA Summary ($dollars) as of December 31	2024	2023
Fees	**$ 1,710,600**	$ 1,721,821
Share of gain/(pain) on operations	**(6,188)**	(398,376)
Key performance indicators	**897,920**	950,780
Interest on funds	**155,177**	215,702
Performance compensation	**2,757,509**	2,489,927
EARA opening balance	**5,748,506**	7,136,526
Performance compensation	**2,757,509**	2,489,927
EARA closing balance before withdrawals	**8,506,015**	9,626,453
Veolia withdrawal with security	**(3,258,579)**	(3,877,947)
EARA closing balance after withdrawals	**5,247,436**	5,748,506
Accumulated Veolia withdrawals	**$20,250,049**	$16,991,470

As of December 31, 2024, the EARA balance was $5.2 million ($5.7 million, 2023).

Veolia can reduce the EARA balance if a letter of credit is issued to support a withdrawal. In April 2024, upon approval from the LT, $3,258,579 of the EARA balance was paid out to Veolia and replaced with a Standing Letter of Credit.

As per the Agreement, Veolia is required to post security to the City with the purpose of protecting the City in the event of certain situations. Veolia has posted $25 million security bond and a $45.3 million letter of credit. There is also a Parental Guarantee in place to protect the city whereby Veolia North America guarantees all of Veolia's obligations under the Agreement.

Financial Summary ($ Millions)	December 31, 2024	December 31, 2023
Reimbursement of Veola direct costs	**$ 3.0**	$ 2.9
Earnings At Risk Account	**5.2**	5.7
At Risk Amount	**41.7**	45.0
Performance Security	**50.0**	50.0
Standing Letter of Credit	**20.3**	17.0

Actual direct costs of $3,016,558 were reimbursed to Veolia. Direct costs are primarily compromised of staff salary and benefits, and insurance.

8. 2025 ANNUAL PROGRAM PLAN GOALS AND DELIVERABLES

The WSTP will build on the previous year's work continuing the focus on delivery of the capital projects and operations and maintenance readiness. The WSTP remains fully committed to compliance and will be continuing to assist the WWSD with ongoing initiatives.

8.1. Program Management Initiatives

8.1.1. MT Planning

As part of the Annual Program Plan, the MT has established a rolling three-year planning tool to establish goals and deliverables for the next three years. The planning tool will be used to follow progress throughout the year and plan for subsequent years.

8.1.2. Communication

The WSTP will prioritize relationship management across City, Veolia, and stakeholders in 2025. Key focus areas include developing trust and collaboration with the new Biosolids Upgrade project development partner, generating interest in the NRF project, and maintaining Provincial engagement. Given the significant infrastructure investment and rapid changes, the MT will continue emphasizing effective communication between the Water and Waste Engineering Department, Wastewater Services, and Veolia to ensure aligned project delivery goals and operational compliance.

8.1.3. Change Management

The Biosolids and NRF projects will utilize a PDB delivery method, departing from traditional Design Build or Design Bid Build approaches. This collaborative methodology focuses on comprehensive risk management, design development, and cost optimization before finalizing the Design Build Agreement. The approach aims to maximize value, ensure quality, and enhance operational readiness.

As the SEWPCC Upgrade and Expansion project nears completion, engineering expertise from both City and Veolia teams will transition to support the increasing NEWPCC Upgrades activities in 2025. Throughout this transition, the MT will continue to assess and address change management considerations in their planning process.

8.1.4. Target Costs

The WSTP has Capital Project Target Costs (CPTC) in place for the SEWPCC Upgrade and Expansion and the NEWPCC PSU and Headworks projects. For the PSU project, the pain/gain calculation will be finalized at project Final Acceptance. Final Acceptance for the PSU project is anticipated in Q3 2025.

CPTC methodology for the NEWPCC Biosolids project will be developed in 2025 with LT approval to follow. Lessons learned from the Biosolids project will be utilized to develop a CPTC methodology for the NRF project. An initial CPTC for the NRF project is planned to be submitted to the LT by the end of 2025.

The strategy for the Non-Operational Improvement Capital Project Operating Adjustment for the SEWPCC Upgrade and Expansion project is to focus on specific process areas where a Target Cost can add value though optimization. The goal for 2025 is to identify potential improvement areas which will benefit from the Target Cost.

8.1.5. Program Resources

Following the 2024 third-party audit of NEWPCC Projects, project resourcing requirements were redefined. As projects and planning continue to evolve, the WSTP will regularly assess and adjust resources to meet changing needs. Veolia is actively recruiting for the following positions:

- **Projects Leader** – Senior-level construction leader position to support the NRF Project as well as advisor services on the other NEWPCC major projects

- **Interface Manager** – Position to support all the interfaces and site logistics between projects at NEWPCC

- **Cost Controller or Project Accountant** – Position to support the cost control on NRF as requested by the auditor

The City will continue to fill open positions within the WSTP to support all the projects.

8.2. Compliance, Operation, and Maintenance Update

The WSTP will continue to prioritize the operational support to manage process compliance. A focus will be maintained on readiness activities related to the major upgrade projects. No specific operational projects are identified for 2025 due to the significant workload required to support commissioning of the major capital works.

The WSTP will continue to support the operations in performing and delivering its operational priorities beyond the capital program. The WSTP will continue to support the improvement of maintenance capability. A Project Charter will be created for maintenance priority activities in 2025.

8.3. 2025 Project Goals

8.3.1. NEWPCC Upgrade: Power Supply Upgrade (PSU) and Headworks Facilities

PSU project:

- Resolve outstanding warranty work and issue Acceptance Certificate.

Headworks Facilities project:

- Finalize and accept the Issued for Construction design drawings.

- Continue construction activities, commissioning planning, and commence readiness activities.

- Resolve relief event issue for cost increases for labour, material, equipment, and subcontractors with support from external legal services.

Distributed Control System Migration project:

- Commence and complete multiple migrations of the existing control system to the new control system.

Primary Clarifier Upgrade project:

- Post and award the construction tender for the Primary Clarification Scum Building.
- Receive the pre-purchased scum dewatering equipment.
- Commence construction.

UV Upgrade project:

- Post and award the construction tender for the UV Upgrades.
- Receive the pre-purchased UV equipment package.
- Commence construction.

8.3.2. NEWPCC Upgrade: Biosolids Facilities

- Begin the Preliminary Design Period in Q1 2025 which will involve activities such as collaboratively working together on a 30 percent design, developing a schedule, openly negotiating risk, and transparently developing a Class 3 cost estimate. The Preliminary Design Period is anticipated to finish in Q3 2025.
- Commence the Intermediate Design Stage.
- Establish the capital cost, construction schedule, and risk register.
- Complete construction of the NEWPCC Piping Installation, Soil Remediation, and Site Compound Development project.
- Complete design and post tender for the NEWPCC Land Drainage Sewer project.

8.3.3. NEWPCC Upgrade: Nutrient Removal Facility (NRF)

- Approve PDB as the delivery method for the project.

- Commence procurement activities and issue the Request for Qualifications (RFQ) for the PDB contract, subject to Council's approval of the revised project budget.

- Complete a second round of market soundings.

- Continue discussions with the regulator regarding the feasibility of a 2030 completion date. Complete further analysis of the risks, the technical feasibility, and market soundings feedback. Report these findings to the regulator.

- Secure funding for the project.

8.3.4. Interim Phosphorous Removal Project

- Successfully commission and achieve substantial performance of the project in 2025.

- Optimize ferric chloride dosing to achieve optimal phosphorous removal while maintaining effective plant operations and digester capacity.

8.3.5. SEWPCC Upgrade and Expansion Project

- Resolve remaining deficiencies and transfer final process areas.

- Achieve substantial completion through successful commissioning of remaining major treatment processes. This includes optimizing sludge thickeners and conducting final plant commissioning with a 30-day plant-wide guarantee period.

- Addressing outstanding commercial matters.

8.3.6. Asset Refurbishment and Replacement Projects (ARRP)

NEWPCC Return Activated Sludge (RAS) Pipe Refurbishment:

- Complete warranty period and issue Acceptance Certificate.

NEWPCC Boiler #5 Replacement:

- Commence construction.

- Order long lead time equipment.

NEWPCC UV Transformer Refurbishment/Replacement:

- Continue with warranty period.

NEWPCC Secondary Clarifier Sludge Blanket Detection:

- Complete the design and issue a tender for construction.

Perimeter Road Pumping Station, Pump 1 and 2 Equipment Replacement & Electrical Upgrades:

- Complete the design and issue a tender for construction.
- Complete construction.

SEWPCC Chiller Replacement:

- Complete construction and start warranty period.

NEWPCC Spiral Heat Exchanger Replacements for Digester Tank Nos. 9-14:

- Complete construction and start warranty period.

WEWPCC Grit and Screening Improvements:

- Complete the preliminary design stage and commence the detailed design stage.

SEWPCC/WEWPCC Sludge Holding Tanks Refurbishment:

- Complete the design and issue a tender for construction.
- Commence construction.

8.4. Capital Planning Updates

The Program will continue to provide ongoing support to Capital Planning through document reviews, proposal evaluations, progress meetings, and project assistance.

A presentation to the WSTP on the technical memos related to the WEWPCC Master plan will take place in 2025.

8.5. Biosolids Reuse Goals

The Program will continue supporting the City's biosolids re-use strategy, which encompasses land application and soil fabrication, with landfill remaining as a contingency option. Building on the 2024 development of a marketing and end use strategy for Class A Biosolids, 2025 activities will include issuing a public expression of interest, participating in agricultural/industry conferences, and engaging directly with regulators, administrators, and potential end users of the product.

8.6. 2025 Winnipeg Sewage Treatment Program Key Performance Indicators (KPI)

KPI	Description
Wastewater Treatment Process Training for Managers	This KPI will provide an understanding of existing and planned processes at the City's three sewage treatment plants for upper management who often need to speak to and advocate for these projects.
Biosolids Hauling Equipment	This KPI will analyze biosolids program management practices across various municipalities, private businesses, and industry with particular emphasis on equipment choices and usage. This information will be used to inform the City’s Biosolids program.

KPI	Description
Process Instrumentation Gap Analysis	This KPI will evaluate existing equipment against newer technologies to recommend potential upgrades or additions. These improvements will enhance process troubleshooting, monitoring, change detection, and enable operators to make more timely operational decisions.
Digester Capacity Contingency Plan	This KPI will develop a contingency plan to address sludge management should the current digesters reach their maximum capacity prior to the completion of the NEWPCC Upgrades.
NEWPCC Decommissioning, Demolition, Future Use and Storage & Maintenance Plan	This KPI will conduct a detailed analysis of each building and process scheduled for decommissioning. The analysis will examine: the operational expenditures ("OPEX") required to maintain the buildings in place, potential opportunities for future facility reuse, costs associated with building demolition, asbestos mitigation, high level HVAC condition assessment, and identification of possible locations for a WWS storage and maintenance facility.
NEWPCC NRF Process Review	This KPI will evaluate the Enhanced Preliminary Design, technology selection process, current market technologies, and associated Capital Expenditure (CAPEX) and OPEX costs to ensure the selected technology best meets site constraints, operational requirements, and the City's future needs.
Historical KPIs – Additional Scope	This KPI will continue with additional scope on previous KPI's as outlined below. The intent is to continue working on these items and provide clear deliverables by the end of 2025. • NEWPCC Risk Mitigation Plan • SEWPCC Lessons Learned • Class A Compost Marketing • Program Agreement Training • Capital Sampling Parameters • NEWPCC Constructability Review • NEWPCC Biosolids Operational Strategy

FINANCIAL IMPACT

Financial Impact Statement **Date:** 30-Jun-25

Project Name:

WINNIPEG SEWAGE TREATMENT PROGRAM 2024 ANNUAL REPORT
PROGRAM AGREEMENT BETWEEN THE CITY OF WINNIPEG AND VWNA

COMMENTS:

The report is received for information. Financial implications of the Program are discussed in the Financial Results section of the report.

Lucy Szkwarek, FCPA, FCGA
Lucy Szkwarek, FCPA, FCGA
Manager of Finance and Administration

CONSULTATION

This Report has been prepared in consultation with:

- WSTP Leadership Team

OURWINNIPEG POLICY ALIGNMENT

This report aligns with OurWinnipeg 2045, Policy 2.19 Leverage Green Infrastructure, by adding to the value of nature preservation by using its characteristics to provide infrastructure capacity solutions.

> Objective: Protect and value ecosystems as essential components to quality of life through municipal activities and urban environment.

WINNIPEG CLIMATE ACTION PLAN ALIGNMENT

This report aligns with the Winnipeg Climate Action Plan through Strategic Opportunity 6: Waste Reduction and Diversion.

> Key Direction 6.3 Utilize Biosolids In Agriculture and Landscaping Industries

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: Winnipeg Sewage Treatment Program
Prepared by: Linda McCusker, P. Eng.
Date: July 10, 2025
File No.: 020-17-06-10-01

Appendix A: Leadership and Management Team Membership

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