Agenda – Executive Policy Committee – September 21, 2023

Report – Standing Policy Committee on Water, Waste and Environment – September 8, 2023

Item No. 4 Winnipeg Sewage Treatment Program 2022 Annual Report – Program Agreement Between the City of Winnipeg and VWNA Winnipeg Inc. (Veolia)

STANDING COMMITTEE RECOMMENDATION:

On September 8, 2023, the Standing Policy Committee on Water, Waste and Environment concurred in the recommendation of the Winnipeg Public Service and recommended to Council:

1. That this report is received as information.

Agenda – Executive Policy Committee – September 21, 2023

Report – Standing Policy Committee on Water, Waste and Environment – September 8, 2023

DECISION MAKING HISTORY:

STANDING COMMITTEE RECOMMENDATION:

On September 8, 2023, 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 2022 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
L. Szkwarek, CPA, CGA Manager, Finance and Administration	T.W. Shanks, M. Eng. P. Eng. Director, Water and Waste Department	N/A	M. Jack

EXECUTIVE SUMMARY

This annual report to Council summarizes the accomplishments and financial results that were realized in 2022, the twelfth year of the 30-year program, as well as the plans and objectives that have been set for 2023.

The Veolia personnel augment the City's team and bring worldwide expertise to the Winnipeg Sewage Treatment Program (WSTP).

The WSTP day-to-day operations are governed by the program's Management Team (MT). The MT provides advice and recommendations on the WSTP activities and administration to the Leadership Team (LT) and the Director of 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 2022, the Program continued its focus on delivery of the major capital projects, implementation of the maintenance strategy and readiness for operating the new infrastructure.

RECOMMENDATIONS

That this report is received as information.

REASON FOR THE REPORT

A 30-year consulting services agreement with VWNA Winnipeg Inc. (Veolia) was executed on April 20, 2011. This agreement requires the City to report on results of the WSTP to City Council on an annual basis.

IMPLICATIONS OF THE RECOMMENDATIONS

There are no implications with receiving this report as information.

HISTORY/DISCUSSION

On April 20, 2011, the City entered into a consulting services agreement with VWNA Winnipeg Inc. (Veolia). The scope includes advice on operations and capital upgrades at the City's three sewage treatment plants for the duration of a 30-year agreement. 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 program's Management Team (MT). The MT provides advice and recommendations on the WSTP activities and administration to the Leadership Team (LT) and the Director. The LT provides advice and recommendations to the Director on the efficient delivery of all aspects of the Program, including ensuring compliance with City reporting and approval requirements. Within City delegated authority, it is the Director who approves all final decisions related to the WSTP (see Appendix A for the current membership of the MT and LT.).

ANNUAL PROGRAM REPORT 2022

Notable Successes:

- South End Water Pollution Control Centre (SEWPCC) Upgrade:
  - In 2022 the focus for SEWPCC commissioning was the start-up of biological treatment required for Nitrogen and Phosphorus removal and planning for the completion of work scheduled for the winter low flow season. Partial compliance with the Environment Act Licence was achieved through Biological Nutrient Removal (BNR) start-up. Preparation for critical winter low flow activities in the raw sewage pumping station and UV treatment were also achieved. Operational risk was also reduced by successful commissioning of the new emergency generator systems.

- North End Sewage Treatment Plant (NEWPCC) Upgrade: Headworks Facilities Project:
  - Construction of the new headworks facilities began in early Spring of 2022. Installation of secant piles, which are required for excavation of below ground structures, and driven piling was close to complete by the end of 2022. Another major accomplishment was completing the placement of the largest concrete pour.

- NEWPCC Upgrade: Biosolids Facilities Project:
  - Provincial and Federal funding for the biosolids facilities project was announced in August 2022 which provided certainty of funding levels and allowed the City to proceed with the procurement phase. An enhanced preliminary design was completed by the City's consultant, which was a risk reduction activity to demonstrate a constructible solution prior to initiating the procurement process.

- Interim Phosphorous Removal (IPR) Project:
  - Design of the works required to remove phosphorous at NEWPCC ahead of the nutrient removal project was completed. Construction costs came in higher than estimated during design which required additional budget to be secured. Following confirmation of the budget, a construction contract was awarded towards the end of the year. Construction commenced at the beginning of 2023.

- Asset Refurbishment and Replacement (ARR):
  - Several contracts were awarded through the ARR Program which will reduce asset risk. The most notable of these are: A construction contract to refurbish the critical process pipework at the NEWPCC, and a construction contract to refurbish mechanical systems on primary clarifiers at the SEWPCC. In addition, the roof conditions across all facilities were assessed and an asset management plan created for the treatment plant roofs.

- Challenges
  - SEWPCC Upgrade: Early 2022 was challenging on the project due to the efforts for investigation, corrective actions and clean-up of the media release that occurred in the BNR.

  - Headworks Facilities: During the first phase of construction, which involved significant excavations for foundations and underground structures, the headworks project encountered ground conditions which deviated from reasonable assumptions made during the project planning stage. These conditions affected piling rates and uncovered environmentally impacted soils.

  - NEWPCC Sequence Batch Reactor (SBR): Reliability of equipment in the NEWPCC SBR impacted the ability of the facility to remove Nitrogen which is a licence requirement. This will require significant levels of corrective work in 2023 in order to regain treatment reliability.

A. Compliance, Operation and Maintenance

1. Compliance

The SEWPCC successfully commissioned the BNR treatment process and decommissioned the High Purity Oxygen processes in 2022. The SEWPCC was removing Nitrogen and Phosphorous to levels required by the environmental licence for normal flow conditions.

The West End Sewage Treatment Plant (WEWPCC) and NEWPCC plants have performed well during the year.

2. Maintenance Strategy

Progress delivering the maintenance strategy in 2022 included:

- Identification of maintenance parts requirements for the SEWPCC.

- Development of benchmarks for upgrade works area by area.
- Development of high-level maintenance Performance Indicators.
- An asset risk review conducted for the WEWPCC re-assessed asset criticality, evaluated the condition of the highest criticality assets and developed risk mitigation plans for these assets.

B. NEWPCC Upgrade Projects

Upgrades to the NEWPCC for licence compliance and reliability are being delivered in three major projects, and some supporting projects, in order to better manage risk, scope and cost of this large complex program. The three projects are being initiated in order of process criticality as follows:

- NEWPCC Upgrade: Power Supply and Headworks Facilities
- NEWPCC Upgrade: Biosolids Facilities
- NEWPCC Upgrade: Nutrient Removal Facilities

Project 1 - NEWPCC Upgrade: Power Supply Upgrade (PSU) and Headworks Facilities	• The PSU project has provided a new City-owned substation which was put into service in 2020 and has been providing power to the NEWPCC throughout 2022. The project has not reached total performance and is under care and maintenance by the Design Build (DB) Contractor. • The building occupancy permit was received in 2022. A final warranty walk-through was completed for identification of outstanding items to be addressed by the DB Contractor. This is required before the one-year warranty can begin once a plan is presented by the DB Contractor for completion of remaining documentation. • Upgrade of the NEWPCC headworks facilities will ensure reliability through the replacement of some of the oldest sewage treatment infrastructure and processes in Winnipeg. The work will also provide improved grit and screening removal to the standard required by the advanced sewage treatment technologies to be provided for the Biosolids and Nutrient Removal projects. • Construction of the new facilities commenced in 2022 with ground clearing, foundation construction and deep excavations for the raw sewage pumping station, grit and screenings buildings.
Project 2 - NEWPCC Upgrade: Biosolids Facilities	• Work continued on the Biosolids Facility procurement strategy and funding agreements in 2022, which resulted in a public announcement of the funding agreement during the summer. Received in December 2022, the funding agreement provides $552 million of provincial and federal funds through the Investing in Canada Infrastructure Program (ICIP). • As part of the funding agreement development, the WSTP completed a market sounding in 2022 to obtain feedback from the construction

	market on project risks, procurement, strategy, process guarantees and interest in the project. • Development of the procurement documents continued in 2022 and will be posted in 2023.
Interim Phosphorous Removal	• This project will provide enhanced interim chemical removal of Phosphorus at the NEWPCC prior to completion of the full upgrades. • Design was completed in 2022 and a construction tender was prepared. Following Council approval of funding, the construction contract was awarded before the end of the year allowing site setup to be completed and groundwork to begin.
Distributed Control System (DCS) Migration	• Design of a fiber communication ring was completed with a construction contract developed, posted and awarded in 2022. Construction of the fiber ring is progressing and will facilitate migration of the control system. Work continued on design of the new automation system throughout 2022.

C. 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 (C4), the final phase of the project, is on-going. This year has seen the commissioning of Secondary Clarifiers 4 and 5 and final preparations for commissioning of the BNR process.

Contract Administration	• At the beginning of the year, the focus remained on commissioning the Bioreactors (Area R), and completing construction in Secondary Clarification (Areas S), Headworks (Area G), Chemical Building (Area C). Construction activities were started in Fermentation (Area K). • Following a power failure prior to commissioning the BNR, plastic media which normally resides in the bio-reactor, was released to the downstream treatment processes. A root cause analysis was also conducted to understand the incident and minor changes implemented to prevent a similar situation occurring during normal operation. • Secondary treatment was successfully commissioned over the summer with start-up of the biological nutrient removal treatment process for operation by City staff (Area S and R). Construction on the other areas was not completed as planned which has prevented their commissioning in 2022.
Commissioning	• The focus for commissioning has been on the start-up of biological treatment required for Nitrogen and Phosphorus removal and planning for the completion of work scheduled for the winter low-flow season.

	• During 2022, the plant was fully transitioned with all wastewater flows being treated by the new BNR systems; this allowed for the start of the Biological process which was closely monitored throughout the commissioning period. The BNR is providing stable treatment of normal plant flows that are meeting provincial licence limits. • A major scope item for the SEWPCC Upgrade and Expansion project is the provision of a modern automation and control system and transition of processes to that new system. Prior to BNR startup, the existing secondary clarifier required for start-up was successfully migrated to the new control system. • Work progressed on the plant electrical distribution systems to integrate electrical monitoring and remote monitoring from NEWPCC. Diesel generators, for emergency power, were commissioned and are now available to power the core treatment processes in event of failure of the electrical supply from Manitoba Hydro. • Correction of post commissioning deficiencies and construction of the remaining works has continued for the headworks throughout 2022. Care and custody of the headworks remains with the contractor until all issues required for handover to City operations staff are completed. • Priorities achieved in 2022 included the commencement of activities to meet license compliance through BNR startup and preparation for critical winter low flow activities in the raw sewage pumping station and UV treatment.

D. Asset Refurbishment and Replacement Program (ARR) and Minor Capital Projects

ARR is a program which follows the City Asset Management framework to identify, prioritize and manage small to medium sized projects required to maintain current levels of service during the sewage treatment plan upgrades. ARR projects are being delivered by resources from the Water and Waste Department's Engineering Division and the Wastewater Services Division.

a. Projects in Delivery Phase:

NEWPCC Return Activated Sludge (RAS) Pipe Refurbishment	• Construction to refurbish the NEWPCC RAS system began in 2022. The work will extend the asset life and mitigate particular risks associated with deferral of the secondary treatment upgrade. • The design involved wrapping the majority of the system in an engineered carbon fiber wrap which was completed during the year mitigating the primary condition risk. Construction will progress through the low flow season with planned outages to replace sections of the pipe that cannot be wrapped.

NEWPCC Primary Clarification Facility Refurbishments, Replacements, and Upgrades:	• This project will be delivered in two parts: provision of new assets for the removal and treatment of fat, oil and grease (FOG) from primary treatment; and refurbishment and replacement of life expired systems supporting the primary clarifiers. Design of the FOG treatment facility has been ongoing through 2022.
NEWPCC Boiler Controls Reliability	• This project is improving reliability of NEWPCC boiler controls, Boiler #4 control upgrades are complete, and Boiler #3 controls are in progress.
NEWPCC Boiler Refurbishment	• This project will replace the natural gas fired boiler which is required for digester and space heating and is currently out of service. A Project Charter will be finalized at the start of 2023.
Chem Scan Replacement	• This project replaced the effluent quality analyzers at the WEWPCC and the NEWPCC which reached the end of their useful life. The units were installed by Wastewater Services maintenance staff during the year.
NEWPCC SBR Optimization	• Commissioning was completed in 2022 with a successful transition to the new biological process. Following commissioning, the facility experienced a reliability failure which will prevent the process being operated in its optimized mode until the issues are addressed. A plan for addressing the reliability issues is being developed.
NEWPCC UV Transformer Refurbishment/Replacement	• This project will refurbish the enclose for transformers providing power to the UV facility. Design was completed during the year, with a construction contract developed and awarded. Construction has been delayed due to commercial issues on the contract resulting in termination of the contract with the contractor which will be re-tendered in early 2023 for construction to proceed.
NEWPCC UV Pump Replacement:	• This project replaced five pumps which lift effluent to the UV facility and provided an off-line spare pump. Supply, installation and commissioning of the pumps were successfully completed during the year. Work will progress with construction of minor electrical upgrades next year.

b. Projects in Procurement Phase:

WEWPCC Grit and Screening Improvements	• This project will upgrade the WEWPCC inlet screens, refurbish the grit facility which has reached the end of its

	useful life and conduct condition assessments on specific assets to facilitate future capital work planning. • A Request-For-Proposal (RFP) was drafted in 2022 for design services. Posting of the RFP was postponed to allow higher priority projects to be moved forward.

E. Capital Planning

Development of the WEWPCC Master Plan commenced in 2022 with procurement of consulting services for this work. The outcomes of this study will indicate what, if any, future work is required to maintain levels of service and expand capacity for the WEWPCC.

F. Biosolids Reuse

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.

Land Application	• 2022 marked the fifth year of the City of Winnipeg's Biosolids Land Application Program that involves the annual spreading of 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. The Program in 2022 included: • In-field stockpiling and storage of the biosolids materials on agricultural land where land application is to take place for a given year. • Odour assessments of the biosolids storage site were continued in 2022 following the established protocol. • Biosolids land application 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.
Soil Fabrication Program:	• The City has 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 program provides an alternative to landfill disposal of biosolids in winter months when land application routes are not viable.

G. 2022 Program Key Performance Indicators (KPI) Results

2022 KPIs were evaluated in accordance with Schedule III of the Program Agreement.

KPI	Description	Target	Value Achieved
NEWPCC Power Supply Protection & Control Training	Provide the City a baseline to support the implementation of Protection & Control which will allow the City to investigate protection operations, troubleshoot control issues for energizing and de-energizing equipment, and gain knowledge to support associated contractors.	$187,600	$187,600
Master Program Schedule Scoping Document	Creation of a Program Master Schedule to mitigate the risk of schedule delays and unexpected costs on critical projects caused by informal coordination between projects.	$187,600	$187,600
SEWPCC Lessons Learned	To deliver lessons learned documentation and interactive discussion on topics related to C4 of the SEWPCC Upgrade and Expansion Project.	$187,600	$187,600
WEWPCC Risk Mitigation	Application of the risk assessment methodology to assets to help manage the physical asset risk at the WEWPCC as upgrades are not expected for some time.	$140,700	$140,700
SEWPCC Optimization Planning	Develop a roadmap for optimization of the major treatment processes at the SEWPCC.	$140,700	$140,700
Automation Master Plan and WTSP Standards	Review and provide comment to City of Winnipeg for revision to Automation Master Plan and WSTP Standards.	$93,800	$84,420

H. 2022 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.
- Interest adjustments.

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

Earnings At Risk Account Summary ($thousands) as of December 31	**2022**	**2021**
Fees	**$ 1,779**	$ 861
Share of gain/(pain) on operations	**348**	(27)
Key performance indicators	**929**	746
Interest on funds	**203**	66
Performance compensation	**3,259**	1,646
EARA opening balance	**3,878**	2,232

EARA closing balance before withdrawals	**7,137**	3,878
Veolia withdrawal with security	-	-
EARA closing balance after withdrawals	**7,137**	3,878
Accumulated Veolia withdrawals	**$13,114**	$13,114

The EARA is compared to the At Risk Amount (ARA) to determine if Veolia is entitled to reduce their at risk amount. The ARA represents numerically the amount of risk remaining in the Program over the balance of the contract, and includes best estimates of operating and capital expenditures. As at December 31, 2022, the EARA balance was $7.1 million ($3.9 million, 2021) and the ARA balance was $47.9 million ($49.5 million, 2021).

Veolia can only reduce their ARA at such time as the EARA balance exceeds the ARA balance or if a letter of credit is issued to support a withdrawal. In 2022 no withdrawal was issued (2021 – no withdrawal).

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 $50 million security ($25 million letter of credit and $25 million performance bond). 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.

The financial summary for 2022 with comparative figures for 2021 is as follows:

Financial Summary ($millions)	**December 31, 2022**	December 31, 2021
Reimbursement of Veolia direct costs	**$ 2.5**	$ 2.3
Earnings At Risk Account	**$ 7.1**	$ 3.9
At Risk Amount	**$ 47.9**	$ 49.5
Performance Security	**$ 50.0**	$ 50.0
Standing Letter of Credit	**$ 13.1**	$ 13.1

2023 ANNUAL PROGRAM PLAN (APP) DELIVERABLES:

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

A. Program Goals and Objectives

The Program focus will remain on progressing the major capital upgrades to:

- SEWPCC Upgrade and Expansion: Complete construction of the remaining works and achieve full biological nutrient removal. Commissioning of the biofilters, fermenters and sludge thickeners by 2024.

- NEWPCC Power Supply Upgrade: Achieve Total Performance and start its one-year warranty period.

- NEWPCC Upgrade: Headworks Facilities: Continue work on site with construction of the major buildings and other structures throughout 2023.

- NEWPCC Upgrade: Biosolids Facilities: Post the RFQ, obtain three (3) qualified proponents and post the RFP.

- NEWPCC Phosphorus Master Plan: Successfully commissioning and achieve substantial performance of the project during the year.

In addition, the Program will complete the WEWPCC Facilities Master Plan in 2023 and continue to support the Asset Refurbishment and Replacement Program.

B. Program Management Initiatives

Management Team Planning	Program activities have been developed for 2023 through the WSTP MT planning process, with goals and objectives identified for the following two years to aid long term planning.
Communication	The WSTP will continue to create, build and maintain relationships throughout the City, Veolia and all Project stakeholders. A Master Program Schedule will be updated to communicate project schedule, key interface points and critical milestones complete or delayed to the projects.
Change Management	With the ever-changing construction market, the WSTP has been working with Materials Management and Legal to develop clauses for new contracts, such as escalation, to ensure qualified proponents are bidding on the Major Capital Projects. The Biosolids procurement team has worked diligently through workshops, market soundings and meetings to get the best value for money on the Biosolids project.
Target Costs	Develop a Capital Project Target Cost (CPTC) methodology for the NEWPCC Headworks and a strategy for a Baseline Operating Cost adjustment (NOICPOA) for the SEWPCC Upgrade and Expansion project. Once Total Performance has been reached for the NEWPCC PSU Project, an initial CPTC Pain/Gain position will be calculated which will be finalized at the project Final Completion.

C. NEWPCC Upgrade Projects

Power Supply Upgrade	A new power substation has been built at the NEWPCC in advance of the headworks and subsequent capital projects. The new supply is designed to accommodate additional power demand of the future upgraded facility and replace the existing on-site Manitoba Hydro substation with a City owned substation. The new Power Supply has been in operation for over a year and in 2023 the project will

	achieve Total Performance which will indicate the beginning of the Warranty Management activities.
Headworks Facilities	The NEWPCC Headworks Facilities is being delivered through a DB contract. Construction began in 2021 and in 2022 significant progress was made on the major excavations, foundations and other ground works. During 2023 the foundations and below grade structures will be complete and the focus will move to construction of the major buildings and structures. Design of the process equipment, electrical, mechanical and automation works will continue into 2023 while the civil works is being completed.
DCS Migration	The RFP for system integrator will be posted at the beginning of 2023 with the contract being awarded in early summer 2023. The consultant will work throughout the year with the system integrator to finalize the design and procure the main construction contract for the equipment for posting in 2024.
Primary Clarifier Refurbishment	This project will improve reliability of the NEWPCC Primary Clarifiers and provide a new treatment process for dewatering of scum. Detail design on phase one is progressing and will complete in 2023 with tender and procurement of a construction contractor. Phase two works will be on-going in 2023 but will not ramp up until 2024.
Biosolids Facilities	Procurement documents for the biosolids project will be prepared and posted in 2023. The Design Consultant will continue development of the technical requirements. This includes the possibility of transitioning from a Fixed Price Design Build to an alternative delivery model based on feedback from the market soundings.
Nutrient Removal	Start of the enhance preliminary design (EPD) to evaluate revised flow conditions, technologies and cost estimate.
NEWPCC Constructability	Complete the constructability review as part of the provincial requirements.

D. SEWPCC Upgrade and Expansion Project

The design phase of the SEWPCC Upgrade and Expansion project is complete. Work on the last construction contract (C4) is continuing as a Program priority in the context of significant schedule and contract relationship challenges.

The Program will continue to work closely with the Consultant to manage the progress of C4. This includes working closely with Revay and external legal resources to document and manage activities with the C4 contractor to minimize risk exposure to the City and protect the best interests of the Program.

The goal is to achieve the successful commissioning of the remaining major treatment processes including providing full biological removal of Phosphorous and treatment for wet weather flow conditions in 2023 through conversion of the existing HPO structures to fermenters and commissioning of the high rate clarifiers. There remains a risk that full licence compliance may not be achieved until 2024.

E. Biosolids Management

The Program will continue to support the City's biosolids re-use strategy which has developed multiple beneficial re-use routes for biosolids: Land Application and Soil Manufacturing. Land fill remains part of the biosolids management strategy contingency. This strategy provides maximum flexibility and robustness.

F. Capital Planning

The priority for Program support to Capital Planning will be on the Phosphorous Master Plan. Work on a WEWPCC Facility Master Plan will continue in 2023 and it is anticipated the Consultant's report will be received during the year. In addition, the RFP for engineering services for the WEWPCC Grit and Screening Improvements will be posted with the aim of achieving start of design in 2024.

G. Compliance, Operation and Maintenance

The Program will continue to prioritize operational support to manage process compliance. A focus will be maintained on readiness activities related to the major upgrade projects.

Operations Strategy	No specific operational projects are identified for 2023 due to the significant workload required to support commissioning of the major capital works. The Program will continue to support the Wastewater Services Division in performing and delivering on its operational priorities beyond the capital program.
Maintenance Strategy	The Program will continue to support the improvement of maintenance capability. A Project Charter will be created for maintenance priority activities in 2023.

H. Asset Refurbishment and Replacement (ARR) Program

The priority ARR Projects for 2023 are:

NEWPCC RAS Pipe Refurbishment Project: This project will refurbish the existing RAS pipe system at the NEWPCC to improve reliability until the secondary treatment process is upgraded. Construction of the remaining works is anticipated to be completed in 2023, where permitted by seasonal constraints.

NEWPCC Phosphorus Master Plan: Construction of the Interim Phosphorus Removal project will continue through the year with the goal of successfully commissioning and achieving substantial performance of the project during the year.

I. 2023 Program Key Performance Indicators (KPI)

KPI	Description
NEWPCC Constructability Review	• Complete a review of the upgrade projects required to meet NEWPCC licence requirements, including funding information, by 2030. • To be used by the WSTP when implementing new capital projects related to NEWPCC by helping identify the overlaps, tie-ins, coordination and optimizing the integration of new projects into the NEWPCC.
Project Controls Report	• To show the overall health of the Program/Project in terms of Budget and Time to help improve overall program/project reporting of cost and schedule variances in a user friend dashboard/report
NEWPCC Power Supply Protection: Relay Training	• Develop a training program to understand the basics of Protection relays. Training includes how the protections operates, why protection operate, how it communicates issues, settings and retrieving critical data for analysis.
NEWPCC Heating Master Plan	• Develop a plan to manage the operational risk related to building and process heating; ensure adequate heating is maintained throughout the major upgrade works; avoid unnecessary capital costs by replacing boilers that are not required due to heat load changes; and provide a long-term road map for facility heating.
Digester De-Commissioning / Commissioning Best Practice	• Improve digester safety during decommissioning and recommissioning activities. • Scope includes review of regulatory and best practices, risk management and a gap analysis.
NEWPCC Risk Mitigation	• Provide an investment profile for current assets at the three treatment plants. • Obtain a flexible engineering resource to improve investment planning for refurbishment and replacement projects.
NEWPCC Biosolids Operational Strategy	• Explore operational challenges for the new biosolids facility so there is support for operations and maintenance readiness through each phase of the project.

FINANCIAL IMPACT

Financial Impact Statement

Date: July 4, 2023

Project Name:

WINNIPEG SEWAGE TREATMENT PROGRAM 2022 ANNUAL REPORT PROGRAM AGREEMENT BETWEEN THE CITY OF WINNIPEG AND VWNA WINNIPEG INC. (VEOLIA)

COMMENTS:

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

Lucy Szkwarek, CPA, CGA

Lucy Szkwarek, CPA, CGA
Manager Finance and Administration

CONSULTATION

This Report has been prepared in consultation with:

- WSTP Leadership Team

OURWINNIPEG POLICY ALIGNMENT

This report aligns with OurWinnipeg 2045, Objective 5: Protect and value ecosystems as essential components to life.

Policy 2.19 Leverage Green Infrastructure - Value, protect and integrate green infrastructure solutions within the urban environment, to achieve highest and best use for biodiversity and ecosystem integrity, mitigate servicing capacity constraints, and accommodate only park, recreation, open space, or City operations related uses in City-owned land used as parks or under parks jurisdiction.

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: Finance and Administration
Prepared by: Ashleigh Campbell, CPA CA
Date: July 21, 2023
File No.: 020-17-06-10-01

Appendix A: Leadership and Management Team Membership

APPENDIX A: LEADERSHIP AND MANAGEMENT TEAM MEMBERSHIP (updated)

