Minutes – Executive Policy Committee – July 8, 2015

Report – Standing Policy Committee on Infrastructure Renewal and Public Works – June 23, 2015

Item No. 3 Winnipeg Sewage Treatment Program 2014 Annual Report Program Agreement Between The City of Winnipeg and Veolia (VWNA Winnipeg Inc.)

EXECUTIVE POLICY COMMITTEE RECOMMENDATION:

The Executive Policy Committee concurred in the recommendation of the Standing Policy Committee on Infrastructure Renewal and Public Works and submitted the following to Council:

1. That the report be received as information.

Report – Standing Policy Committee on Infrastructure Renewal and Public Works – June 23, 2015

DECISION MAKING HISTORY:

Moved by Councillor Lukes,

That the recommendation of the Standing Policy Committee on Infrastructure Renewal and Public Works be concurred in and forwarded to Council.

Carried

STANDING COMMITTEE RECOMMENDATION:

On June 23, 2015, the Standing Policy Committee on Infrastructure Renewal and Public Works 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 2014 ANNUAL REPORT PROGRAM AGREEMENT BETWEEN THE CITY OF WINNIPEG AND VEOLIA (VWNA WINNIPEG INC.)**

Critical Path: **Standing Policy Committee on Infrastructure Renewal and Public Works - Executive Policy Committee – Council**

AUTHORIZATION

Author	Department Head	CFO	CAO/COO
Moira L. Geer, CA Manager of Finance and Administration	Chris Carroll, P. Eng. Acting Director Water and Waste	n/a	M. Jack COO

RECOMMENDATIONS

That Council receive this report as information.

REASON FOR THE REPORT

A 30 year consulting services agreement with Veolia was executed on April 20, 2011, which included advice on operations and capital upgrades at the City's three sewage treatment plants. This agreement requires the City to report on results of the Program to City Council on an annual basis.

IMPLICATIONS OF THE RECOMMENDATIONS

This Annual Report to Council summarizes the accomplishments and financial results that were realized in 2014, the fourth year of the 30 year program, as well as the plans and objectives that have been set for 2015.

Veolia continues to deliver value to the City of Winnipeg and 2014 was another successful year for the program. This report summarizes the:

- 2014 accomplishments and progress on capital program
  - Achievement of 2014 deliverables
  - Achievement of 2014 key performance indicators
- 2014 financial results
- 2015 deliverables and key performance indicators

In 2011, the inaugural year for the Program, the focus was to set up a foundation of policies and procedures that would facilitate day to day activities, communication, and reporting

relationships. There was also a need to define an end-to-end process to deliver capital projects, develop a detailed user manual and establish management information systems and procedures that would carefully measure Program results and manage Program risks. In 2012 and 2013, the WSTP focused on advancing the large capital projects, identifying and implementing operational improvements, and improving capital planning, operations, reporting and process control.

In 2014 the WSTP continued to focus on improvement to capital planning, operations, reporting and process control in addition to progressing towards completion of sewage treatment plant upgrades. The 2014 accomplishments and 2015 objectives are described in further detail in this report.

EXECUTIVE SUMMARY

On April 20, 2011, the City entered into a consulting services agreement with Veolia. The scope of the agreement includes advice on operations and capital upgrades at the City's three sewage treatment plants for the duration of the 30 year agreement. 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 Director and on the administration of the WSTP to the Leadership Team (LT). The City retains full ownership and control of the sewage treatment plant facilities.

Each year the Director of Water and Waste approves the Program's performance goals, and key performance indicators (KPI) as outlined in an Annual Program Plan (APP).

For 2014, a number of program accomplishments were successfully completed. For example, facility compliance reporting, process control management plans in all three treatment plants, procurement optimizations, operational safety planning, biosolids master planning, production of biosolids compost, asset refurbishment and replacement planning, human machine interface replacement and improvements to communication just to name a few. A detailed list of accomplishments and progress can be found in the History section of this report.

For 2015, the Annual Program Plan continues to focus on compliance, operational, procurement and maintenance improvements, capital project support, standardization, biosolids master plan, project manager development and communication and long range planning. A detailed list of objectives can be found in the History section of this report.

2014 Financial Results

The financial results for 2014 are summarized in the table below. Details can be found in the History section of the report.

Financial Summary ($millions)	**December 31, 2014**	December 31, 2013
Reimbursement of Veolia direct costs	**$ 3.9**	$ 3.1
Earnings At Risk Account (EARA)	**$ 4.3**	$ 2.9
At Risk Amount (ARA)	**$ 43.9**	$ 49.4
Performance Security posted by Veolia	**$ 50.0**	$ 50.0

HISTORY

On April 20, 2011, the City entered into a consulting services agreement with Veolia. The scope of the agreement includes advice on operations and capital upgrades at the City's three sewage treatment plants for the duration of the 30 year agreement.

The City retains full ownership and control of the sewage treatment plant facilities. The City-Veolia contractual relationship abides by the following Program principles:

- City employees are managing and operating the facilities
- Decisions are being made on the basis of whole-life costs
- Best for job and best for Program decisions are being made
- Open book accounting and audit of direct costs is occurring
- The City and Veolia work collaboratively, openly and honestly within a no fault/no blame culture
- Compensation is based upon performance

The contract has been implemented by key participants from the Department's Engineering, Wastewater Services and Finance and Administration Divisions who, along with dedicated on-site Veolia staff members, form the Winnipeg Sewage Treatment Program (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 Director and on the administration of the WSTP to the Leadership Team (LT).

The LT meets monthly and is comprised of senior leaders from Veolia North America as well as Divisional Managers from the Water and Waste Department. The LT makes recommendations to the Director of the Water and Waste Department on matters including WSTP activities, objectives, budgets and compliance with Environment Act licences. Within City delegated authority, it is the Director who approves all final decisions related to the WSTP.

(See Appendix 1 for the current composition of the MT and LT)

PROGRAM ACCOMPLISHMENTS – 2014

PROGRAM GOAL	PROGRESS	STAGE OF COMPLETION
OPERATIONS		
Facility Compliance	A methodology for investigating and reporting non-compliances was developed and implemented for all three treatment plants. Details included: compliance management business processes, training plan, records of training completion, facility compliance plans, and lessons learned reports.	Complete

PROGRAM GOAL	PROGRESS	STAGE OF COMPLETION
Wastewater Information Management System (WIMS) Dashboard	Development of a key performance measurement system included completion of documentation for business and systems requirements. Upon the award of a concurrent RFP, PLC standardization, the WIMS Dashboard business requirements will be evaluated against the scope of the RFP to identify opportunities that may exist for efficient delivery of the Dashboard project.	Partially complete
Process Control Management Plan (PCMP)	The PCMP was fully completed and implemented in all three sewage treatment plants in 2013. In 2014 there was a comprehensive review of stakeholder requirements for laboratory analysis with focus on operational control, regulatory reporting and engineering planning. The work has: • created a laboratory sampling and analysis requirements list and improved communication between stakeholders • identified a reduction in the number of parameters required to be tested which allowed implementation of additional sampling and analysis required for best practice in operational control within existing budgets	Complete
Operational Participation in Capital Projects	To ensure operational knowledge is transferred and communication improved between capital and operations teams, the following initiatives were put in place to support effective operational participation in projects: • Construction Hazard, Assessment Implication Review (CHAIR), Hazard and Operability Review (HAZOP), and Design Review processes and design standardization • introduced Veolia Commissioning Manager The following initiatives were recommended for introduction to provide additional staff training and support: • created and implemented design review checklists • improved time allocation for document review • training on reading P&ID drawings • maintenance and design review workshops	Complete
Maintenance Planning	Required to move towards industry best practices, the 2014 objectives included agreeing to a maintenance philosophy, methodology for maintenance scheduling and resource planning, defining how these would be integrated into the Departments existing Computerized Maintenance Management System (CMMS). A project charter was developed and is under review.	Partially complete

PROGRAM GOAL	PROGRESS	STAGE OF COMPLETION
Improve Use of Computerized Maintenance Management System (CMMS)	Areas of improvement to the implementation of the CMMS were identified and prioritized. However, the CMMS is utilized by multiple users within the Water and Waste Department, and the need of stakeholders beyond the WSTP has to be considered before changes can be made. A Project Charter has been drafted and is under review which includes the introduction of a communication protocol between all CMMS stakeholders for agreeing and implementing recommendations which impact multiple WWD divisions.	Partially complete
Operational Documentation	Work was done to improve the management of documentation used by operations to provide relevant information for the safe operation and maintenance of facilities. Improvements include: identifying existing documents, their content and current process for filing and control; developing a vision for structure and control of documentation, including gap analysis against the current situation; recommending processes for the management of documents that interface between operations and other divisions; recommending a list of operational documentation, developing a hierarchy, and purpose statement for each proposed document. A review of existing business processes for document management and an implementation plan to implement the vision are continuing into 2015.	Substantially complete
Procurement Optimization	A review of existing City operational contracts was undertaken in order to identify potential savings through procurement, achieve economies of scale, and implement best practices. The following operational contracts were reviewed: • transportation of raw sludge • biosolids transportation • methanol supply • supply and delivery of UV lamps • dewatering polymer, ferric chloride and soda ash supply Recommendations were reviewed and three contracts were prioritized for further consideration: 1) biosolids transportation; 2) supply and delivery of UV lamps and; 3) supply and delivery of methanol.	Complete

PROGRAM GOAL	PROGRESS	STAGE OF COMPLETION
Operational Improvement Business Cases (OIBC)	OIBCs were completed for: • WEWPCC Energy Optimization – a study to evaluate opportunities for energy optimization (electricity and natural gas) concluded that energy use was actively managed by plant staff when compared to similar facilities in North America. Additional energy saving opportunities were identified and staff are addressing the recommendations. • NEWPCC Centrifuge Feed Sludge Monitoring – installation of an "inline" Total Suspended Solids (TSS) monitor on the centrifuge feed line of the NEWPCC centrifuges was completed. The full benefits of the investment, which include optimization of sludge cake dry solids, dewatering polymer reduction and laboratory sampling reductions will be realized upon completion of a plan for full automation. • NEWPCC Polymer Optimization – savings through improvement in efficiency of polymer use were identified. The project concluded that a new technology under review can be used by operational staff to improve efficiency through identifying maintenance requirements of the polymer wetting system and over use of polymer. Permanent installation of the new technology has been recommended. • WEWPCC Optimization of Raw Sludge Hauling – a review of sludge management practices was completed, results of which are under review by the MT with the aim to develop an action plan. • NEWPCC Optimization of Biosolids Cake Hauling – Project Charter will be drafted in 2015.	Substantially complete
Operational Cost Control and Reporting	To identify possible improvements for a more effective control of operational costs, discussions were held on drivers for cost control. An operational cost control business case is to be completed in 2015.	Partially complete
Operational Safety Planning	Continued implementation of best practices in workplace health and safety resulted in the following initiatives: • a "near miss" today could be an accident tomorrow. In 2013 the WSTP implemented a program to encourage reporting of safety "near misses". A Review of the program in 2014 revealed that more near misses were being reported. Success of the program has prompted work to extend the near miss reporting program to other parts of the Division.	Complete

PROGRAM GOAL	PROGRESS	STAGE OF COMPLETION
CAPITAL PLANNING AND PROJECT DELIVERY		
Biosolids Master Plan	The public engagement process for biosolids re-use was completed and stakeholder input was considered in the development of the Master Plan. The Master Plan was submitted to the regulator in 2014 on schedule. Part of the Master Plan identified components of the existing digestion facility that can be reused or repurposed to accommodate planning activities. The Master Plan includes: • thermal hydrolysis as a technology to improve sludge treatment • establishing of a strategic Struvite management contract. An RFQ for Struvite management was issued and closed, and commercial terms are being reviewed • evaluating of a business case for the use of combined heat and power at the NEWPCC. The business case was completed and reviewed by Manitoba Hydro	Complete
Facility Planning	The establishment of facility plans will help provide a road map to guide capital investment planning at the sewage treatment facilities. A Facility plan for the NEWPCC was drafted and includes updates to the design flows and loads, and provides a complete picture of ongoing and projected capital projects at the facility. The draft, which will include a process for updating and maintaining the Plan, will be finalized in 2015. The NEWPCC Facility Plan was targeted as a first priority due to the planned capital investment. Due to resource restraints, the development of the WEWPCC Facility Plan will begin in 2015.	Partially complete
Asset Refurbishment and Replacement Planning (ARRP)	ARRP is important to manage asset risk and to support the City budget planning process. 2014 involved a review of extreme and high level risk assets with operations, maintenance and Veolia staff. It also generated a prioritized refurbishment and replacement plan for input in the capital planning cycle.	Complete
Hauled Liquid Waste (HLW) and Leachate Plan	The long-term strategy for HLW and Leachate was developed and approved by the Water and Waste Department Management Team. The plan calls for HLW and leachate treatment to be consolidated at the NEWPCC. The plan will be put forward for approval in 2015.	Complete

PROGRAM GOAL	PROGRESS	STAGE OF COMPLETION
Arc-flash Management Plan	Arc Flash is a serious safety risk on industrial facilities. An Arc Flash management strategy was produced and includes the development of a contract to provide resources required to update sewage treatment plants to meet Arc Flash safety standards. The award for Arc Flash management contract was consolidated into the scope of the NEWPCC Power Supply Project and will be delivered as part of this larger project.	Complete/re-profiled
Produce Biosolids Compost	As part of the biosolids master plan, the construction of a pilot compost facility was completed. A wood chip supply contract was awarded in June, 2014. Commissioning of the pilot facility started in December and will be completed in 2015.	Complete
NEWPCC Biological Nutrient Removal (BNR) Project Delivery	The project achieved the following objectives in 2014: • completion and approval of the BNR upgrade procurement strategy document, resulting in a plan to obtain a consultant to act as the Owners' Advocate • award of the NEWPCC Power Supply consultant • development BNR Upgrade project plan in draft status • issuance of RFP for BNR Upgrade consultant is underway	Partially complete
Document Management System (DMS)	The DMS was further developed and its use is being piloted for the first construction contract of the SEWPCC project. Results of the pilot will be used to decide how full roll-out can be achieved.	Partially complete
E&IC Standardization	The overall objective for the E&IC standardization is to: provide a comprehensive automation design guide and associated technical standards to ensure consistent high-quality automation installations and; standardize, via standing orders, critical electrical and automation components. The global project progress at the end of 2014 is 90% complete. Standardization of documents and systems include progress in: automation design guide; tagname identification standard; HMI layout and animation plan; and historical data retention standard. Standing Orders for the standardization of components – critical electrical and automation – include: UPS, control systems, motor control equipment, protocol converters/gateways, and a variety of sewage equipment components.	Substantially complete

PROGRAM GOAL	PROGRESS	STAGE OF COMPLETION
SEWPCC Upgrade and Expansion Project	In 2014 the project definition phase, including the award of contracts for Integrated Fixed Film Activated Sludge (IFAS) and High Rate Clarifier (HRC), and the preliminary design phase, including a project delivery strategy were completed. A phased approach to detailed design was adopted and commenced in 2014. A preliminary earth works contract was awarded and site preparation and excavation commenced. Target cost evaluation extends into 2015.	Complete
Human Machine Interface (HMI) Stabilization	Due to aging equipment at the facilities the HMI system was assessed as a major risk to operations. All HMI servers and hardware were replaced in each of the three treatment plants.	Complete
Tailor the Consultant RFP Process	A series of tools to be used by Project Managers in writing consultant RFPs was developed including a standard process to guide users through the available tools and templates. Progress included: • creating a Consultant RFP FAQ document • updating the Consultant Services Management Plan Minimum Requirements and FAQ document • updating the Contract Administration Manual and create FAQ document • updating Workshop Procedures and FAQ documents will be completed in 2015.	Complete
Major Capital Project Cost Control	A financial reporting process was developed for the SEWPCC upgrade and expansion project which can be adapted for use on program activity in other capital projects over $10M.	Complete
Program Team Design Build (DB) Training	To mitigate risk due to lack of experience, the creation and implementation of a DB training program for the program team was completed. Training included the creation and validation of the DB training plan, implementation of the plan through in-class training and workshops. Training sessions for City and Program staff were provided by: Water Design Build Council, D.C. Water (included site visit), Canadian Design Build Institute, Design Build Institute of America, and Veolia.	Complete

PROGRAM GOAL	PROGRESS	STAGE OF COMPLETION
Capital Project Delivery	Progress was made on a variety of capital projects at the sewage treatment plants as follows: <u>WEWPCC</u> • pumping strategy – consultant award complete • flow metering – project charter agreed • clarifier dome repair/roofing deficiencies and fermenter corrosion and concrete deterioration – project charters agreed <u>NEWPCC</u> • secondary clarifiers refurbishment – substantially complete • SBR upgrade – consultant contract awarded; project charter and plan in place • struvite recovery – complete • sludge bin repair – bid-opportunity awarded <u>SEWPCC</u> • raw sewage pumping strategy, operational improvement – project completed	Substantially complete
PROGRAM ADMINISTRATION		
Communication	To improve communications between WSTP, engineering and operations staff a number of initiatives were undertaken including; • completion of communications workshops dedicated to each facility. • Drafting a preliminary dashboard document with continued development planned for 2015. • two new internal WWD Newsletters were issued. • Selected the Program to deliver papers at the WEF/AWWA Utility conference in 2015 and has submitted abstracts for two papers for WEFTEC 2015. These are premier conferences in the North American water and sewer industry.	Complete
Capital Projects Without a Target Cost	The program team has recommended a set of criteria for capital project target cost (CPTC) determination and procedures to document Program value to small non-operational capital projects with no target cost. To determine the feasibility of implementing CPTC on all small non-operational capital improvement projects in the future, the program team will implement the CPTC calculation on one small non-operational capital project in 2015 on a trial basis.	Partially complete

2014 KEY PERFORMANCE INDICATORS (KPI) RESULTS

Operations	Progress
Facility Compliance: Develop and implement methodology for investigating and reporting non-compliances. (complete)	The following KPI requirements were completed: • compliance management business processes • PCMP training completed • facility compliance plan for each WWTP • lessons learned report on the December 2013 SEWPCC TSS compliance failure • lessons learned report on the January 2014 NEWPCC TSS compliance failure • NEWPCC Fecal/E-coli compliance solution report
Operational Documentation: Learn from best practices to improve the management of documentation. Ensure that all required documentation is up to date and relevant. (substantially complete)	The following KPI requirements were completed: • *Discovery* – identified existing documents, summarized their content, detailed current process for filing and maintaining operational documents • *Vision* – developed a vision for structure and control of documentation, provided a Gap analysis report • *Business Process Creation* – provided recommendations for the management of interface between operations and other divisions • *Document Structure Creation* – recommended a proposed document list and hierarchy, produced a purpose statement and proposed table of contents for each proposed document The following KPI requirements are in progress: • *Business Process Creation* – create new business processes and/or recommendation for changes or removal of existing business processes • *Document Structure Creation* – create an implementation plan to populate the document.

Engineering	Progress
Consultant RFP Process: Validate the RFP process and associated template and launch them into the IMS - develop a series of tools to be used in a consultant RFP; a standard process to guide users through the available tools and templates. (partially complete)	The following KPI requirements were completed: • created Consultant RFP FAQ document • updated a Consultant Services Management Plan Minimum Requirements and FAQ document • updated Contract Administration Manual and FAQ document • implemented Practice Period and posting of documents on the Information Management System (IMS) for finished documents The following KPI requirements are in progress: • updating the Workshop Procedures and creation of FAQ documents
Program Team Design Build (DB) Training: Creation and implementation of a DB training program (complete)	The following KPI requirements were completed: • created and validated the DB training plan • implemented the plan through training sessions for City and Program staff by: Water Design Build Council in-class training, Washington D.C. Water workshop and site visit, Design Build Institute of America in-class training, Veolia Design Build Workshops I and II.
Program Administration	**Progress**
Internal Communication: Issue two program newsletters during the year.	The following KPI requirements were completed: • Issued July and December Newsletters to WWD staff and posted on the WWD Intranet site.

2014 FINANCIAL RESULTS

Veolia earns its compensation in three ways: margins applied to direct costs, gain sharing (or pain sharing) on operations and capital target costs, and meeting key performance indicators. The earnings of Veolia in any given year are credited to the Earnings At Risk Account (EARA). The EARA is compared to the At Risk Amount (ARA) to determine if Veolia is entitled to withdraw any of those earnings. Veolia also earns an interest rate on the funds being held that are not eligible for withdrawal.

The financial results for 2014 are summarized in the following table:

Financial Summary ($millions)	**December 31, 2014**	December 31, 2013
Reimbursement of Veolia direct costs	**$ 3.9**	$ 3.1
Earnings At Risk Account (EARA)	**$ 4.3**	$ 2.9
At Risk Amount (ARA)	**$ 43.9**	$ 49.4
Performance Security posted by Veolia	**$ 50.0**	$ 50.0

The Earnings At Risk Account categories are further itemized in the following table:

Earnings At Risk Account Summary ($thousands)	**December 31, 2014**		December 31, 2013	
Balance, beginning of year		**$ 2,940**		$ 1,842
Compensation earned				
Margin	**$ 572**		$ 467	
Share of gain/(pain) on operations	**43**		(147)	
Key performance indicators	**714**		712	
Interest on funds held	**103**	**1,432**	67	1,098
Balance, end of year		**$ 4,372**		$ 2,940

As at December 31, 2014, the ARA balance was $43.9 million ($49.4 million, 2013) and the EARA balance was $4.3 million ($2.9 million, 2013). Veolia is not currently eligible to draw compensation from the EARA account.

As required by the agreement, 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.

Veolia earnings remain at risk for the entire duration of the agreement.

2015 ANNUAL PLAN PROGRAM DELIVERABLES:

OBJECTIVE	DESCRIPTION
Operations Objectives	
Support Operational Compliance	• *NEWPCC Fecal and E-Coli Compliance*: A management plan was created and operation risk mitigations are being tested. The Program team will evaluate and report on the effectiveness of risk mitigation actions. • *NEWPCC TSS Compliance Investigation*: Investigate causes of TSS compliance issues and make appropriate recommendations for improvement. • *Process Control Management Plan Audit*: The PCMP, implemented in 2013, is a key business process for quality assurance of treatment compliance. The Program team will perform an audit of the PCMP implementation (using a three month sample period) and provide an audit report. • *NEWPCC Digester Risk Mitigation Strategy*: Reduced digestion capacity due to failure of Digester 11 and increased sludge loads when the new SEWPCC treatment process is commissioned, have increased operational risk. The program team will assess the ability of the NEWPCC to receive additional sludge loads from the SEWPCC in a scenario that anticipates Digester 11 remains out of service. Contingency plans will be identified. • *Wastewater Information Management System (WIMS)*: Is required to provide efficient process control and reduce administrative burden on operational staff. The Program team will revise the WIMS project plan, gain approval and make progress within the approved project plan.
Procurement Improvements	• *Bid Opportunity Renewals for Methanol and Cake Hauling*: Opportunities to improve contracts for methanol supply and digester sludge cake hauling were identified in 2014. For 2015, the Program team will implement appropriate recommendations from the review through re-bidding of the contracts. • *UV Lamp Pilot Study*: As a result of identified opportunities from a procurement review, the Program team will begin a pilot study of third party UV lamps with the aim of determining the acceptability of alternate lamp suppliers for the existing UV treatment facilities. • *Centrifuge Service Contract*: Develop an RFP for a multi-year centrifuge service contract to reduce the administration associated with procurement.

OBJECTIVE	DESCRIPTION
Maintenance Improvements	• *Maintenance Strategy Project Support*: The Program team will support maintenance activities required to maintain desired asset levels of service, and support improvement in maintenance capabilities required to realize full benefits of planned major capital investment. The Project will provide the avenue to meet objectives for changing maintenance strategies. • *Asset Management Manual*: Consolidate operational asset management processes and procedures into a single Asset Management Manual for sewage treatment, including implementation plans. • *Sludge Auto-Loading System Upgrade*: Hardware for the NEWPCC sludge auto-loading system requires replacing. The Program team will document capabilities, functioning and installation of the current system, and conduct conceptual and detailed design, procure, install and commission the new system.
Operations and Maintenance Support	• *Operations Manual Specifications*: Develop a specification to improve the delivery of operations manuals for the facilities, which will be used for the NEWPCC DB contract. • *Operational Involvement in Capital Projects*: The Program team will facilitate a plan to ensure operations personnel are effectively engaged and have an appropriate level of insight in capital projects, and operations knowledge is transferred to the project. • *Operational Cost Control*: Develop a responsive feedback/control system to adequately monitor and manage dynamic operational costs. The focus will be on high value operational cost categories to identify mechanisms, such as quarterly or monthly variance reporting, which will facilitate timely control of costs in these categories.
Optimization Initiatives	In order to better manage sludge costs, the Program team will focus on the following: • Complete identification and prioritization of sludge optimization ideas at the WEWPCC. • Progress workshops and investigations to identify sludge optimization opportunities at the NEWPCC and create business cases for improvement where appropriate.

OBJECTIVE	DESCRIPTION
Engineering Objectives	
Capital Project Support	Due to the numerous capital projects being undertaken by the WSTP, special consideration will be taken to ensure all projects are assigned dedicated staff and support required for successful completion. • *SEWPCC Compliance - BNR Upgrade and Expansion*: This expansion is required to meet regulatory licence requirements and to increase plant capacity to meet growing demand. Preliminary design has been completed; detailed design and construction is in progress. For 2015, value engineering will be finalized, a Capital Project Target Cost (CPTC) will be developed, and a second contract package will be tendered. • *NEWPCC Compliance - BNR and Biosolids Upgrade*: The BNR upgrade is required to meet regulatory licence requirements. 1. The project will be delivered as a Design Build (DB) and will require an Owner's Advocate (OA) to provide advice and undertake preliminary design. An RFP to procure the services of an OA is planned for 2015. 2. The NEWPCC Power Upgrade project, providing increased electrical power supply capacity, is a critical milestone in the delivery of the NEWPCC Upgrade project. 3. An OA has been hired and, with support of the WSTP, will progress the project definition and preliminary design of the project. • *WEWPCC Compliance - Installation of Final Effluent Flow Monitoring and Sampling:* Installation of the effluent flow and monitoring station is required to meet licencing requirements. An RFP to procure a consultant will be issued in 2015 with construction of the new equipment expected in 2016 and data collection in 2017. • Progress other capital projects in 2015 to current project plans for all treatment plants.
Standardization	• *EI&C Standardization*: Electrical, Instrumentation and Control standardization will improve the efficiency of delivering capital projects and provides consistency of design across all sewage treatment facilities. In addition, standardization becomes critical for the Design Build (DB) delivery model as user requirements must be clearly communicated to the DB Contractor through the RFP process. A systems integrator will play a key role in delivering the project. An RFQ for the systems integrator will be completed in 2015. • *Basis of Design Standards and General Specifications*: Basis of Design (BOD) and general specifications documents are required for the NEWPCC upgrade project. Existing documents will be reviewed, and gaps identified, and a plan developed to ensure documents are ready when needed.

OBJECTIVE	DESCRIPTION
Biosolids Master Plan Implementation	• *Biosolids Land Application:* One of the requirements of the NEWPCC licence is reuse of nutrients. Introduction of an RFQ and RFP for land application of biosolids at agronomic rates is planned to identify and leverage suitable resources. • *Biosolids Thermal Hydrolysis (TH):* The inclusion of TH is an important component in the reuse of nutrients. 2015 will see preparations for hiring a consultant to produce an RFP for the selection of thermal hydrolysis equipment. A consultant will be hired in 2015 to prepare an RFP to pre-select the thermal hydrolysis equipment supplier. • *Struvite Contract:* To meet licencing requirements for recovery and reuse of nutrients at the NEWPCC, the pre-selection of a struvite equipment supplier is necessary. The struvite equipment supply RFP has been posted and closed, and an award is expected to be made in 2015.
Project Manager Development	Development of City project managers is important for the success of WSTP capital delivery and operational support. Continued training in 2015 will focus on sewage treatment process and consultant RFP.
Program Administration Objectives	
Communication	To achieve regular communication within the Program team and ensure common goals and understanding of issues, the following objectives are planned: • *Internal Communication*: Publish two new issues of the Program newsletter and continue with the project dashboard which will identify future workload and operational resourcing requirements enabling operations to identify potential resource issues in advance. • *External Communication*: To deliver appropriate recognition, the Program will continue to develop and deliver papers and presentations to external professional institutions.

OBJECTIVE	DESCRIPTION
Capital Project and Operational Target Cost Development	With the completion of the SEWPCC preliminary design, the following is planned for 2015: • *Target Costs for SEWPCC Upgrade*: The Program team will complete the development of a capital project target cost (CPTC) on the SEWPCC Upgrade. A non-operational capital project operating adjustment (NOICPOA) is required to adjust the SEWPCC baseline operating target cost (BOTC) as a result of the upgrade and expansion project. The Program team will complete the development of the NOICPOA on the SEWPCC upgrade to an agreed project plan. • *CPTC for Small Capital Projects*: The Program team is implementing numerous smaller capital projects that do not have assigned target costs. For 2015, the Program team will implement a CPTC calculation on one small non-operational capital project on a trial basis, review lessons learned, and make a recommendation to the LT for application of CPTC on small capital projects.
Long Range Planning	• Develop a 3-5 year strategy for Program activities including a review of the members and terms of reference for the Task Groups.

2015 PROGRAM KPI SUMMARY

PROGRAM ADMINISTRATION KPI	
Program Newsletter	Issue two newsletters communicating status and progress of Program initiatives.
Projects Dashboard	Create a dashboard tool for operations which includes information on projects with a Charter which are undertaken by the WSTP and includes information on operational resource requirements.
OPERATIONS KPI	
Operational Involvement in Capital Projects	Produced the following to help improve the engagement of operations on Capital Projects: Operations Design Review Training - provide targeted engineering training to operations personnel to increase their skillset in being able to effectively engage in capital projects; Operations Design Review Checklists - provide checklists for operations to use as a guide for conducting design reviews.
Asset Management Manual	Consolidate operational asset management processes and procedures into a single asset management manual for the sewage treatment branch. Deliverables include approval of an asset management manual project charter, draft of Asset Management Manual contents list, and communication to stakeholders.

Operation Manual Specifications	An Operations Manual Specification will be developed and deliverables for 2015 will include: • draft and final specification • develop a business process for change and version control of operations documents and documents held in OWAM • ensure required communication to stakeholders
Digester Risk Mitigation Strategy	Approval of a digester risk mitigation strategy project charter and report.
NEWPCC TSS Compliance Investigation	Approval of a TSS investigation project charter and subsequent report.
CAPITAL PROJECTS KPI	
Consultant RFP	The Program team developed a set of tools to assist in the drafting of a consultant RFP. In 2015, plans are to update the Consultant Administration Manual and create a FAQ document; update Consultant Services Project Commissioning Requirements and create an FAQ document; and provide training for Program staff on workshops.
Sewage Treatment Training for Project Managers	Continued and refresher training is crucial to the success of the Program ensuring uniform base level of process knowledge. A sewage process training requirements plan will be prepared in 2015.
SEWPCC Project Delivery	Develop and implement a SEWPCC Management Plan which will assist in defining escalation for technical, engineering, constructability, commissioning, and design suggestion processes, in addition to assisting the City in retaining control of both the project.

FINANCIAL IMPACT

Financial Impact Statement **Date:** April 21, 2015

Project Name:

WINNIPEG SEWAGE TREATMENT PROGRAM 2014 ANNUAL REPORT - PROGRAM AGREEMENT BETWEEN THE CITY OF WINNIPEG AND VEOLIA

COMMENTS:

There is no financial impact associated with the recommendation of this report. Financial implications are discussed in the Financial Results section of the report.

"Original signed by M. L. Geer, CA"
Moira L. Geer, C. A.
Manager of Finance and Administration

CONSULTATION

In preparing this report there was consultation with:

WSTP Leadership Team

SUBMITTED BY

Water and Waste Department Finance and Administration Division
Prepared by: Lucy Szkwarek, CGA and Angela Wiebe, CGA
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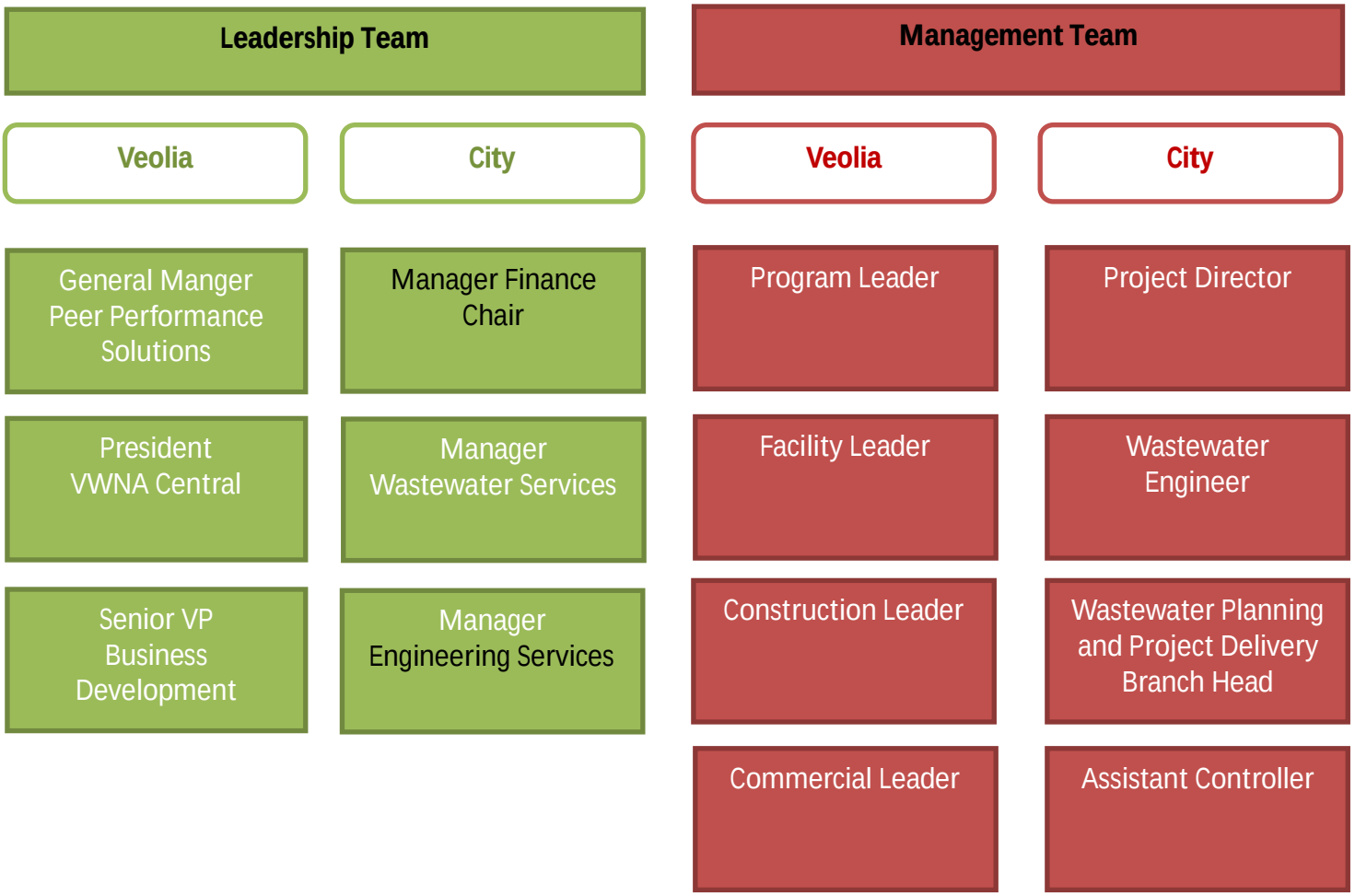
Leadership Team
Management Team
Veolia
City
Veolia
City
General Manger Peer Performance Solutions
Manager Finance Chair
Program Leader
Project Director
President VWNA Central
Manager Wastewater Services
Facility Leader
Wastewater Engineer
Senior VP Business Development
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