

**REPORTS**

**Item No. 3                    South End Sewage Treatment Plant (SEWPCC) Upgrading and Expansion, Project ID: 20320002EL, 2032000207 and 203210002B, Quarterly Project Status Report No. 22 For the Period Ended June 30, 2019**

**STANDING COMMITTEE DECISION:**

The Standing Policy Committee on Finance concurred in the recommendation of the Winnipeg Public Service and received as information the financial status of the South End Sewage Treatment Plant (SEWPCC) Upgrading and Expansion, as contained in this report.

**Minutes – Standing Policy Committee on Finance – November 8, 2019**

DECISION MAKING HISTORY:

Moved by Councillor Chambers,

That the report of the Winnipeg Public Service be received as information.

Carried

## ADMINISTRATIVE REPORT

**Title: South End Sewage Treatment Plant (SEWPCC) Upgrading and Expansion,  
Project ID: 20320002EL, 2032000207 and 203210002B,  
Quarterly Project Status Report No. 22  
For the Period Ended June 30, 2019**

**Critical Path: Standing Policy Committee on Finance**

### AUTHORIZATION

Author	Department Head	CFO	CAO
Geoff Patton, P. Eng., Manager of Engineering Services	M. L. Geer, CPA, CA, Director, Water and Waste Department	P. Olafson, Interim CFO	M. Ruta, Interim CAO

### EXECUTIVE SUMMARY

**Project On Schedule: Yes  No**

**Project On Adopted Budget: Yes  No**

**Percent of Schedule Complete:**

**Percent of Adopted Budget Spent:**

Contract 3 – City contracted with North American Construction (“NAC”) to carry out the 3<sup>rd</sup> contract for the SEWPCC project. There were a number of disputes and appeals regarding the contract. An agreement in principle was reached with the Contractor to settle all C3 appeals.

Contract 4 – City contract with NAC to carry out the 4<sup>th</sup> and final contract to complete the 4<sup>th</sup> SEWPCC Contract. Construction activity is continuing. The work associated with the Electrical Building is trending approximately two months behind schedule. This may put subsequent portions of the work at risk as the Electrical Building is necessary to facilitate the commissioning of other areas of the work. Schedule reviews with the contractor are ongoing. In this reporting period the Contractor has appealed nine Contract Administrator determinations.

In this reporting period the project is still on schedule and budget.

On June 1, 2019 Veolia North America assumed Construction Management duties for the South End Sewage Treatment Plant Upgrading project.

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

## RECOMMENDATIONS

That the financial status of the South End Sewage Treatment Plant (SEWPCC) Upgrading and Expansion, as contained in this report, be received as information.

## REASON FOR THE REPORT

The Asset Management Administrative Standard FM-004 requires all projects with a total estimated cost of \$23 million (2019) or more report quarterly to the Standing Policy Committee on Finance. This threshold is adjusted annually for construction inflation as part of the annual Capital Budget approval. The Standing Policy Committee on Finance may also request reporting on any capital project.

## IMPLICATIONS OF THE RECOMMENDATIONS

No implications.

## HISTORY/DISCUSSION

See Appendix C – Key Project Events (History)

**Construction** (Update from last report)

### **RFP 682-2012 (Professional Consulting Services)**

- On May 22, 2019 the Chief Administrative Officer approved 682-2012 contract over expenditure 4 in the amount of \$7,000,000, taxes extra, for the delivery of the Contract Administration (CA) services for the balance of the SEWPCC project, and for the Construction Management services until June 2019 when the Winnipeg Sewage Treatment Program (WSTP) plans to resume the role.
- On June 1, 2019 Veolia North America assumed Construction Management duties for the C4 construction contract.
- CH2M Hill continues to provide the Required Contract Administration services of the 682-2012 assignment.

### **RFP 871-2013 (Supply and Delivery of Free-Moving Media)**

- No changes to report.

### **RFP 873-2013 (Supply and Delivery of High Rate Clarification Equipment)**

- No changes to report.

**Materials Management Reference 1089-2015 (Single Source Negotiation for Manitoba Hydro Works Associated with the South End Sewage Treatment Plant (SEWPCC) Nutrient Removal/Expansion Project)**

- Manitoba Hydro has completed their installation of the 66kV electrical supply lines.

**Bid Opportunity 333-2014 (Contract C1 – Site Preparation Works)**

- No changes to report.

**Bid Opportunity 601-2015 (Contract C2 – High Rate Clarifier and Grit Removal Concrete and Miscellaneous Works)**

- No changes to report.

**Bid Opportunity 899-2015 (Contract C3 – Bioreactors, Blower Building and Secondary Clarifiers Structural Concrete & Miscellaneous Work)**

- The Contractor achieved Total Performance as of March 6, 2019.
- The Contractor filed 21 appeals on contract 3. An agreement was reached with the Contractor for all C3 appeals and within the contract award value.

**Bid Opportunity 976-2016 (Contract C4 – Sitewide Mechanical, Electrical, Concrete and Site Works)**

- Current primary items under construction are the Chemical/Electrical building, the Grit and Screening building, substation, electrical duct banks and new Secondary Clarifier 4 and 5 works.
- The schedule of the work associated with the Electrical Building is currently tracking two months behind the milestone completion date for that work. This may have a cascading effect to delay other elements of the work, if a sufficient recovery plan is not undertaken by the contractor.
- The WSTP is reviewing each monthly schedule submission, providing commentary and meeting with the Contractor to rectify baseline issues.
- A review of previous schedule submissions, including four week look ahead and baseline, is being undertaken to assess the validity and continuity of the schedule.
- The Contractor has appealed nine determinations made by the Contract Administrator. Associated appeal reports are being prepared by the Department.

Table 1 – Contracts

Contracts Table							
Bid Opportunity #	Company Name	Description	Original Contract Award Value (GST & MRST extra as applicable)	Total Approved Over-Expenditures (Over-Expenditure amount only)	Date of Award	Date of Completion	Estimated % Complete
682-2012	CH2M Hill Canada Ltd.	Professional Consulting Services for SEWPCC Upgrading and Expansion	\$ 25,350,419	\$ 13,233,179	4/29/2013		77
57-2016	Associated Engineering (Sask) Ltd.	Professional Consulting Services for an independent review and alternative schedule analysis	\$ 92,360	\$ -	1/28/2016	2/28/2017	100
871-2013	Veolia Water Technologies Canada Ltd.	Procurement of Free-Floating Media and Associated Appurtenances	\$ 7,750,588	\$ -	12/11/2014		38
873-2013	Veolia Water Technologies Canada Ltd.	Procurement of High Rate Clarification Equipment	\$ 2,052,500	\$ 107,300	7/10/2014		69
333-2014	PCL Constructors Canada Ltd.	Contract 1 - Site Preparation Works	\$ 22,646,510	\$ -	9/4/2014		98
353-2014	Hanscomb Ltd.	Construction Cost Consulting Services for SEWPCC Upgrading and Expansion	\$ 50,700	\$ -	9/4/2014	8/6/2015	100
572-2014	B&B Rentals Inc.	Provision for the Purchase or Lease of a Trailer for Office Space	\$ 184,000	\$ -	9/4/2014	3/18/2015	100
1067-2014	Manitoba Hydro	Manitoba Hydro Load Interconnection Study	\$ 60,000	\$ -	11/14/2014	10/31/2015	100
343-2015	Praxair Canada	Relocation of Lox Tank	\$ 62,715	\$ -	6/3/2015	8/28/2015	100
498-2015	Western Waste Management	Asbestos Abatement	\$ 24,950	\$ -	8/13/2015	11/9/2015	100
601-2015	Graham Construction	Contract 2 - High Rate Clarifier and Grit	\$ 9,549,100	\$ -	10/20/2015		98
899-2015	NAC Constructors Ltd..	Contract 3 - Bioreactors, Blower Building and Secondary Clarifiers Structural Concrete & Miscellaneous Work	\$ 39,756,000	\$ -	5/3/2016		98
797-2016	Manitoba Hydro	Relocation of existing primary electrical service cables	\$ 71,754	\$ -	9/7/2016	1/16/2017	100
976-2016	NAC Constructors Ltd.	Contract 4 - Sitewide Mechanical, Electrical, Concrete and site Works	\$ 179,997,000		10/4/2017		46
1089-2015	Manitoba Hydro	Manitoba Hydro Works Associated with the South End Sewage Treatment Plant (SEWPCC) Nutrient Removal/Expansion Project	\$ 1,827,280		1/15/2018		98
<b>Total</b>			<b>\$ 289,475,876</b>	<b>\$ 13,340,479</b>			

**Upcoming Procurements:**

Description	Anticipated Award Date

**Schedule** (Update from last report)

N/A

Table 2 – Milestones

	<b>Deliverable</b>	<b>Original Targeted Completion Date</b>	<b>Revised Targeted Completion Date</b>	<b>Actual Completion Date</b>	<b>Estimated % Complete</b>
1	Project Definition Report	2013 Q4	2014 Q2	2014 Q2	100%
2	Preliminary Design Report	2014 Q2	2014 Q4	2014 Q4	100%
3	Detailed Design	2014 Q4	2017 Q3	2017 Q3	100%
4	Construction of Site Preparation and Piling (Contract 1)	2014 Q2	2016 Q1	2016 Q1	100%
5	Construction of High Rate Clarifier and Grit Removal Structural and Misc. Works (Contract 2)	2016 Q3	2017 Q1	2017 Q1	100%
6	Construction of Major Concrete Works (Contract 3)	2017 Q4	2018 Q3	2018 Q3	100%
7	Construction of Remaining Works (Contract 4)	2021 Q4			46%
8	Commissioning of interim BNR configuration	2016 Q4	2020 Q3		0%
9	Commissioning of all project components <sup>1</sup>	2021 Q3			0%
10					

<sup>1</sup> Manitoba Sustainable Development Notice of Alteration dated September 12, 2017 - City of Winnipeg South End Water Pollution Control Centre (SEWPCC) - Environment Act Licence No. 2716 RR identifies that the construction and commissioning of the upgraded wastewater treatment plant shall be completed before December 31, 2021.

NOTE: Above dates represent Substantial Completion

### **Risk** (Update from last report)

The last quarterly construction risk review took place on May 23, 2019.

Commissioning risk review is scheduled for July 30, 2019.

The C4 contractor is tracking behind schedule as noted in Table 2 and substandard testing and documentation are new risks that have been noted in Table 3.

Table 3 – Significant Risks and Mitigations Strategies

<b><u>New:</u></b>	
C4 contractor progress tracking behind schedule	The WSTP is reviewing each monthly schedule submission, providing commentary and meeting with the Contractor to rectify baseline issues. A review of previous schedule submissions, including four week look ahead and baseline, is being undertaken to assess the validity and continuity of the schedule.
C4 contractor testing and commissioning planning documentation have been substandard and/or incomplete	Weekly testing/commissioning planning meetings are being held with the contractor
<b><u>Ongoing:</u></b>	
Actual Contract 4 construction has been taking longer than planned.	Key construction milestone dates with linked liquidated damages incorporated into Contract 4.
Process issues at the SEWPCC have delayed some scheduled construction activities.	Ongoing communication with Wastewater Services to facilitate construction activities when opportunity is available. Reschedule construction activities when possible.
<b><u>Mitigated:</u></b>	
Rushed design to meet schedule resulting in a lower design quality and higher frequency of contract change orders.	Detailed review of the 100% design and bid opportunity document was performed using both internal and external resources.
Construction schedule was aggressive and actual construction takes significantly longer than planned.	3rd party review of project schedule was undertaken. Recommended schedule extension was implemented. Detailed monitoring of the construction contract progress implemented.
Limited countrywide contractor awareness of Contract 4 bid opportunity resulting in limited number of bidders.	Advance notice of C4 bid opportunity was posted on Materials Management website and MERX.
Unknown existing conditions are encountered during construction causing schedule delays and additional costs. Internal condition of high purity oxygen reactors is unknown.	Shutdown and interior inspection of existing high purity oxygen reactor was performed in February 2018.

**Financial** (Update from last report)

For further information, refer to Appendix B – Financial Forecast

The current remaining project contingency allowance is less than typical for a project of this size. The ongoing SEWPCC Upgrading and Expansion project costs and contingency allowance will be reviewed as the project progresses.

**Funding** (Update from last report)

N/A



Table 4 – Project Funding Forecast and Receivable

<b>Funding Forecast &amp; Receivable</b>			
<b>Funding Source</b>	<b>Adopted Budget (in millions)</b>	<b>Amended Budget<sup>1</sup> (in millions)</b>	<b>Committed (in millions)</b>
<b>Class of Estimate</b>	<b>Class 3</b>		
<b>City of Winnipeg Total</b>	<b>298.18</b>	<b>276.18</b>	<b>276.18</b>
Retained Earnings	75.82	75.82	75.82
External Debt	222.36	200.36	200.36
<b>Province of Manitoba</b>	<b>6.08</b>	<b>17.08</b>	<b>17.08</b>
<b>Government of Canada</b>	<b>31.34</b>	<b>42.34</b>	<b>42.34</b>
<b>Total</b>	<b>\$ 335.60</b>	<b>\$ 335.60</b>	<b>\$ 335.60</b>

1. NOTE: Only approved funding to date.

**Property Acquisition** (Update from last report)

N/A

**Stakeholder Engagements/Communications** (Update from last report)

N/A

**Subsequent Events after Report Period End Date**

The WSTP has engaged an industry expert to perform an in-depth analysis of the construction schedule and is in active discussions with the contractor regarding schedule and quality concerns. An update will be provided on the next Project Status Report.

The contractor has now issued 40 appeals under C4 (39 open and 1 closed) as of November 1, 2019. The public service has engaged external legal counsel to address C4 contractual issues.

**FINANCIAL IMPACT**

**Financial Impact Statement**

**Date:** September 27, 2019

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**Project Name:**

South End Sewage Treatment Plant (SEWPCC) Upgrading and Expansion,  
Project ID: 20320002EL, 2032000207 and 203210002B,  
Quarterly Project Status Report No. 22  
For the Period Ended June 30, 2019

**COMMENTS:**

Financial forecast for the SEWPCC Upgrade and Expansion project can be found in Appendix B.

*"Original signed by L. Szkwarek, CPA, CGA"*

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Lucy Szkwarek, CPA, CGA  
Manager, Finance and Administration

## CONSULTATION

This Report has been prepared in consultation with:

N/A

## OURWINNIPEG POLICY ALIGNMENT

01-3 Prosperity Direction 1: Provide efficient and focused civic administration and governance. This report supports demonstration of accountability through service performance measurement and reporting.

02-2 Environment: The SEWPCC Upgrade and Expansion will reduce the environmental impact of our citizens on the Red River and the downstream lakes and rivers. It is in collaboration with the Regulatory Licence requirements issued by the Province of Manitoba.

## SUBMITTED BY

**Department:** Water and Waste

**Division:** Engineering Services

**Prepared by:** Neil Harrington, P. Eng.

**Date:** October 4, 2019

**File No.** 020-17-08-25-01, S-926

### **Appendices**

Appendix A – Key Project Facts

Appendix B – Financial Forecast

Appendix C – Key Project Events (History)

Appendix D - Funding

## Appendix A – Key Project Facts

<b>Appendix A - Key Project Facts</b>	
<b>Project Name</b>	South End Sewage Treatment Plant (SEWPCC) Upgrading and Expansion
<b>Business Owner (Department)</b>	Water and Waste
<b>Project ID</b>	20320002EL, 2032000207 and 203210002B
<b>Project Sponsor</b>	
	Director of Water and Waste
<b>Department Responsible for Project Delivery</b>	
	Water and Waste
<b>Consultant Engineer (Company Name)</b>	
	CH2M Hill Canada Ltd.
<b>Adopted Budget</b>	
	\$335,600,000
<b>Class of Estimate (Adopted)</b>	
	3
<b>Range of Estimate (Adopted)</b>	
	-20% to +30% \$268,500,000 to \$436,300,000.
<b>Amended Budget</b>	
	\$335,600,000
<b>Class of Estimate (Amended)</b>	
	3
<b>Range of Estimate (Amended)</b>	
	-20% to +30% \$268,500,000 to \$436,300,000.
<b><u>Project Scope</u></b>	
<p>The project is to expand the capacity of the SEWPCC for expected 2031 flows and upgrade the process to meet new effluent limits for nitrogen and phosphorous. The project design is based on the lowest life cycle cost (Net Present Value, or NPV). In addition, the plant must operate continuously during the work and meet current effluent limits to the greatest extent possible.</p>	
<b>Major Capital Projects Advisory Committee Membership:</b>	
<p>Mike Ruta, Interim Chief Administrative Officer            Dave Wardrop, Chief Transportation and Utilities Officer, Chief Administrative Office            Georges Chartier, Chief Asset and Project Management Officer            Moira Geer, Director of Water and Waste            Lucy Szkwarek, Manager of Finance and Administration, Water and Waste            Jackie Veilleux, Project Director Winnipeg Sewage Treatment Program</p>	

## Appendix B – Financial Forecast

### Appendix B - Project SEWPCC Upgrading and Expansion Financial Forecast As at June 30, 2019

Project Component Deliverables	Budget (in 000's)			Actual Costs To June 30, 2019 <sup>2</sup>	Expenditure Forecast (in 000's)					Total Forecasted Costs	Surplus (Deficit) From Amended Budget	Variance Last Report	Change in Variance
	Adopted Budget	Council Approved Change	Amended Budget*		Projected Costs								
					2019	2020	2021	2022	2023 and Beyond				
Engineering, Design and Other	\$ 45,351	\$ -	\$ 45,351	\$ 44,213	\$ 3,168	\$ 3,557	\$ 5,019	\$ -	\$ -	\$ 55,957	\$ (10,606)	\$ (3,606)	\$ (7,000)
Construction	\$ 257,242	\$ -	\$ 257,242	\$ 138,418	\$ 52,623	\$ 49,796	\$ 36,402	\$ -	\$ -	\$ 277,239	\$ (19,997)	\$ (19,997)	\$ -
Land Acquisition	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Internal Financing/Overhead Costs	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Contingency	\$ 33,007	\$ -	\$ 33,007	\$ -	\$ -	\$ -	\$ 2,404	\$ -	\$ -	\$ 2,404	\$ 30,603	\$ 23,603	\$ 7,000
<b>Total Project Budget</b>	<b>\$ 335,600</b>	<b>\$ -</b>	<b>\$ 335,600</b>	<b>\$ 182,631</b>	<b>\$ 55,791</b>	<b>\$ 53,353</b>	<b>\$ 43,825</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 335,600</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

<b>% of Project Budget Spent</b> (Actual Costs to Date / Adopted & Amended Budget)	54%		54%
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<sup>1</sup> Total budget of \$335.60 Million for the SEWPCC Upgrading and Expansion Project and Distribution of costs for Components was done by the Water and Waste Department. These are estimates and will be revised as the project progresses.

<sup>2</sup> Adopted and Amended budget, and actual costs to date have been agreed to the City's general ledger and Monthly Capital Expenditures Report, actual cost variance equals spending from closed budget years of \$10.918M. See below.

Project ID	Project Year	Adopted Budget	Costs to Date
20320002EL <sup>1</sup>	2002	\$222,752	\$222,752
2032000207 <sup>1</sup>	2007	\$10,695,000	\$10,695,000
203210002B	2012-2015	\$324,682,248	\$171,713,018
Total Project Budget		\$335,600,000	\$182,630,770

<sup>1</sup> Does not appear in the Capital Expenditures Monthly Report as the funds have been expended and it is designated as a closed Project ID.

## Appendix C – Key Project Events (History)

### HISTORY

#### 1. THE PROJECT

The goal of this project is to expand the capacity of the SEWPCC for expected 2031 flows and upgrade the process to meet new effluent limits for nitrogen and phosphorous. The project design is based on the lowest life cycle cost (Net Present Value, or NPV). In addition, the plant must operate continuously during the work and meet current effluent limits to the greatest extent possible.

As a result of the 2003 Clean Environment Commission Hearings on the City's wastewater collection and treatment systems, Manitoba Conservation and Water Stewardship (the Regulator) notified the City that it intended to issue a licence for the South End Water Pollution Control Centre (SEWPCC) that would require control of nutrients discharged to the Red River.

Between 2001 to 2010, Council has approved \$203,250,000.00 for the Nutrient Removal Upgrade/Expansion at the SEWPCC.

On January 9, 2006, the Chief Financial Officer concurred with the recommendation to authorize an assignment to Stantec Consulting Ltd. for preliminary and conceptual engineering services related to the South End Water Pollution Control Centre upgrading and expansion at an estimated cost of \$3,250,000.00.

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

In late 2007, the Winnipeg Public Service was directed to initiate an assessment of alternate project delivery methods for the SEWPCC upgrade and expansion. Consequently, the assignment to Stantec was suspended after the conclusion of the conceptual and preliminary engineering work.

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

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

On June 19, 2009 the Regulator issued a revised Environment Act Licence No. 2716 R for the SEWPCC.

On November 25, 2009, the Chief Financial Officer approved an award to Taillieu Construction Ltd. for SEWPCC Installation of Outfall Pipe, Effluent Sampling Facility and Associated Works, Contract No. 2 at an estimated cost of \$4,884,450.00.

On May 19, 2010 Council:

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

On September 6, 2011, the City submitted to the Regulator, an engineering plan for the upgrading and expansion of the SEWPCC in accordance with Environment Act Licence No 2716 R.

On April 18, 2012, the Regulator issued a revised Environment Act Licence No. 2716 RR for the SEWPCC effective May 1, 2012.

On October 5, 2012, the City submitted to the Regulator a revision to the engineering plan wherein the main treatment process was revised from Biological Aerated Filter to a Fixed-film Activated Sludge process.

On April 25, 2013, the Chief Administrative Officer approved a recommendation to award a contract to CH2M Hill Canada Ltd. to provide Professional Consulting Services for SEWPCC Upgrading/Expansion Project at an estimated cost of \$25,350,419.00.

On March 13, 2014, the Standing Policy Committee on Finance recommended that the South End Water Pollution Control Centre Financial Status reports and future reports pertaining to the North End, South End or West End Water Pollution Control Centre, include:

- The total amount of federal and provincial funding received to date as well as the balance of outstanding for Winnipeg ratepayers;
- Clarification of the cost estimates as a result of the regulatory requirements that have changed and the potential impact on the final budget; and
- A summary of the entire program in terms of funding from all levels of government.

Environment Act Licence No. 2716 RR

On November 5, 2015 the City received a letter from the Province granting a Licence compliance extension to December 31, 2016, noting that consideration of further extensions will be subject to the City providing quarterly status reports and consultation with the Clean Environment Commission.

To comply with the Provincial Licence requirements the City hired Associated Engineering to conduct an Alternative Analysis Review. This report is an independent review of the SEWPCC construction schedule, evaluating ways to accelerate the schedule and/or mitigate delays. The City and Associated Engineering met with the Clean Environment Commission multiple times to review the scope and findings of the report.

The factors contributing to the revised date include:

- Contract detailed design is trending later than the original schedule
- Critical low wastewater flow construction window will delay completion by 12 months
- There was no schedule contingency in the original project critical path
- There was no allocation in the schedule for project risk due to winter construction and unforeseen situations

The Alternative Analysis Review was submitted to Manitoba Sustainable Development on October 20, 2016.

A letter dated September 12, 2017 was received from Manitoba Sustainable Development – Environmental Approval Branch providing conditional approval of the City’s Notice of Alteration - City of Winnipeg South End Water Pollution Control Centre (SEWPCC) - Environment Act Licence No. 2716 RR project completion date. The approval indicates that the construction and commissioning of the upgraded wastewater treatment plant is to be completed before December 31, 2021.

RFP 871-2013 (Supply and Delivery of Free-Moving Media)

- IFAS media remains to be delivered to the site, scheduled in 2020.

RFP 873-2013 (Supply and Delivery of High Rate Clarification Equipment)

- Delivery of HRC equipment to the site has been made.
- Commissioning services scheduled in 2020 remain to be performed.

Bid Opportunity 333-2014 (Contract C1 – Site Preparation Works)

- Contract achieved Total Performance on February 17, 2016.
- Legal Services has filed a Statement of Defence in response to the Subcontractor’s Statement of Claim.

Bid Opportunity 601-2015 (Contract C2 – High Rate Clarifier and Grit Removal Concrete and Miscellaneous Works)

- Contract achieved Total Performance on March 10, 2017.
- The Contractor has appealed the assessment of liquidated damages for failure to meet the contract dates for Substantial and Total Performance.
- The Contractor has not responded to the CFO’s letter of April 28, 2018 concerning their appeal.

## **RISKS AND RISK MITIGATION STRATEGIES**

The project has proceeded on a fast-track basis with construction contracts proceeding completion of the design. The detailed design is now complete with the largest and last construction contract, Contract 4 tendered. The current project budget of \$335.6 million was based on a Class 3 cost estimate which had an ACE expected accuracy range of -20% to +30% or \$268.5 million to \$436.3 million.

An ongoing risk management strategy has been implemented for the project encompassing a proactive process of identifying and assessing project risk, defining appropriate risk handling strategies and plans, and monitoring those actions to completion.

Formal risk and opportunity analyses of the project are scheduled to be performed by the WSTP, the design consultant and key City stakeholders at the following project milestones:

- End of Project Definition design stage – this analysis has been completed
- End of Preliminary Design phase – this analysis has been completed
- At 60% and 90% completion of Detailed Design – these analyses have been completed
- Prior to the start of construction and quarterly during construction – Ongoing
- Prior to the start of, and again at the end of, commissioning

A project risk register is being kept throughout the project and is updated by the above formal analysis.



## Appendix D – Funding

### South End Sewage Treatment Plant (SEWPCC) and Winnipeg Sewage Treatment Program (WSTP)

#### Appendix D

1) Funding for the SEWPCC is as follows:

SEWPCC Nutrient Removal/Upgrade (in \$millions)	Total Cost	Funded to Date		Funding Pending		Total Funding		City Share of Costs
		Canada	Manitoba	Canada	Manitoba	Canada	Manitoba	
Environment Act Licence Driven Funding								
CSIF    BNR	\$ 147.0	\$ 24.51	\$ 6.08	\$ 6.83		\$ 31.34	\$ 6.08	
GIF    Wet Weather Flow	60.0	8.70	9.90	2.30	1.10	11.00	11.00	
Additional Provincial Funding <sup>1</sup>			33.54				33.54	114.04
Other	128.6					-	-	128.60
<b>Estimated Program Costs</b>	<b>\$ 335.6</b>	<b>\$ 33.21</b>	<b>\$ 49.52</b>	<b>\$ 9.13</b>	<b>\$ 1.10</b>	<b>\$ 42.34</b>	<b>\$ 50.62</b>	<b>\$ 242.64</b>

<sup>1</sup> \$33.54 of the \$195 million, committed by the Province of Manitoba for upgrade of all three wastewater treatment plants in the 2007 Throne Speech, has been received and is proposed to be applied to the SEWPCC subject to Provincial approval.

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

WSTP All Projects (in \$millions)	Total Cost	Funded to Date		Funding Pending		Total Funding		City Share of Costs
		Canada	Manitoba	Canada	Manitoba	Canada	Manitoba	
WEWPCC Biological Nutrient Removal <sup>1</sup>	\$ 33.23	\$ 5.07	\$ 8.19			\$ 5.07	\$ 8.19	\$ 19.97
NEWPCC Centrate and UV Disinfection <sup>1</sup>	52.08	5.59	14.54			5.59	14.54	31.95
SEWPCC Nutrient Removal/Expansion	335.60	33.21	49.52	9.13	1.10	42.34	50.62	242.64
NEWPCC Power Supply and Headworks <sup>2</sup>	408.38					-	-	408.38
NEWPCC Biosolids	552.71					-	-	-
NEWPCC Nutrient Removal	828.06					-	-	-
<b>Estimated Program Costs</b>	<b>\$ 2,210.06</b>	<b>\$ 43.87</b>	<b>\$ 72.25</b>	<b>\$ 9.13</b>	<b>\$ 1.10</b>	<b>\$ 53.00</b>	<b>\$ 73.35</b>	<b>\$ 702.94</b>

<sup>1</sup> WEWPCC Biological Nutrient Removal and NEWPCC Centrate and UV Disinfection have been completed.

<sup>2</sup> To date Council has approved NEWPCC Upgrade budget for Power Supply and Headworks Facilities only.