



Water and Waste Department • Service des eaux et des déchets

NOV 08 2017

Manitoba Sustainable Development
Climate Change and Environmental Protection Division
Environmental Approvals Branch
Suite 160 – 123 Main Street (Box 80)
Winnipeg, MB R3C 1A5

Client File No.: 1069.10
Our File No(s): 020-17-08-11-00
020-17-08-11-0N

EMS
5-926

Attention: Ms. Tracey Braun, M.Sc., Director

Dear Ms. Braun:

**Re: Notice of Alteration – City of Winnipeg South End Water Pollution Control
Centre (SEWPCC)
Environmental Act Licence No. 2716RR**

This is in response to your letter dated September 12, 2017, Clause 2 which states:

"The construction of the upgraded wastewater treatment plant shall be completed before February 29, 2020 such that the phosphorus limit of 1.0 mg/L will be met."

As indicated in our letter of October 20, 2016 submitting the Associated Engineering report pertaining to the review of the SEWPCC project schedule, the City was witnessing a delay of approximately 6 months in the construction activities from the report schedule. It was noticed in your letter that the final completion date of December 31, 2021 was adjusted to reflect this change. The Clause 2 date above appears to have been left identical as to what was submitted in the Associated Engineering report. The regularly submitted Financial Status Reports are currently indicating a July 2020 for completion of the Clause 2 requirement above. Please be advised that the Clause 2 date will also be impacted by this 6 month delay and will be updated as shown in the Financial Status Reports.

Should you have any questions on this report, please contact Duane Griffin, P. Eng., at 204-986-4483 or by email at dgriffin@winnipeg.ca.

Yours truly,

Chris Carroll, P. Eng., MBA
Manager of Wastewater Services Division

DEG/dr

c: M. L. Geer, CPA, CA, Water and Waste Department (email)
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J. Veilleux, P.Eng., Water and Waste Department (email)
R. Grosselle, Water and Waste Department (email)
D. E. Griffin, P.Eng., Water and Waste Department (email)
M. Paetkau, P.Eng., Water and Waste Department (email)



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EMS

Attention: Ms. Tracey Braun, M.Sc., Director

Dear Ms. Braun:

**Re: South End Water Pollution Control Centre
Environmental Act Licence No. 2716RR Progress Report**

Please find the attached South End Sewage Treatment Plant (SEWPCC) Financial Status Report No. 15 which reports progress to July 31, 2017 for the SEWPCC Upgrade and Expansion Project.

Should you have any questions on this report, please contact me at 204-986-7435 or by email at ccarroll@winnipeg.ca.

Yours truly,

Chris Carroll, P. Eng., MBA
Manager of Wastewater Services Division

Attachment

NH/jl

- c: Don Labossiere, Manitoba Sustainable Development (email)
Donna Smiley, Manitoba Sustainable Development (email)
Yvonne Hawryliuk, Manitoba Sustainable Development (email)
M. L. Geer, CPA, CA, Water and Waste Department (email)
G. K. Patton, P.Eng., Water and Waste Department (email)
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Minutes – Standing Policy Committee on Finance – November 9, 2017

REPORTS

**Item No. 8 South End Sewage Treatment Plant (SEWPCC) Upgrading and
Expansion, Quarterly Project Status Report No. 15 for the Period
Ended July 31, 2017**

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.

Minutes – Standing Policy Committee on Finance – November 9, 2017

DECISION MAKING HISTORY:

Moved by Councillor Mayes,

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

Carried

ADMINISTRATIVE REPORT

Title: South End Sewage Treatment Plant (SEWPCC) Upgrading and Expansion,
Project ID: 20320002EL, 2032000207 and 203210002B,
Quarterly Project Status Report No. 15
For the Period Ended July 31, 2017

Critical Path: Standing Policy Committee on Finance

AUTHORIZATION

Author	Department Head	CFO	CAO
G.K. Patton, P. Eng., Manager of Engineering Services	M. L. Geer, CPA, CA, Director, Water and Waste Department	M. Ruta	D. McNeil

EXECUTIVE SUMMARY

Project On Schedule: Yes No

Project On Adopted Budget: Yes No

Percent of Schedule Complete:

Percent of Adopted Budget Spent:

Bid Opportunity 976-2016 (Contract 4) for the last major construction contract closed on July 28, 2017. An Award Report to Standing Policy Committee on Water and Waste, Riverbank Management and the Environment recommending to award the work to the lowest responsive bidder, NAC Constructors Ltd. for an amount of \$179,997,000 (MRST Included, GST Extra) has been issued for the Committee's consideration at the October 2, 2017 meeting. With the results of Bid Opportunity C4 the project is back on its original budget with a modest contingency.

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 \$21 million (2017) 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)

- Bid Opportunity 976-2016 (Contract 4) for the last major construction contract closed on July 28, 2017. The Consultant reviewed the submitted tenders and provided a recommendation to award the work to NAC Constructors Ltd. for an amount of \$179,997,000 (MRST Included, GST Extra).
- The Consultant continues to provide Contract Administration services and provide site Construction Manager services under the Optional Contract Administration Services of the assignment.
- The Program Team is preparing an Administrative Report for acquiring longer term site Construction Management/Contract Administration services. The report is expected to be finalized once Bid Opportunity 976-2016 has been awarded and the Contractor's schedule received.

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

- The Contractor has provided response to Contemplated Change Order (CCN) #3 to modify the delivery schedule to align with the construction schedule.
- The responses provided are under review by the Contract Administrator and further discussion with the Contractor is taking place.

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

- The Contractor has provided response to Contemplated Change Order (CCN) #8 to modify the delivery schedule to align with the construction schedule.
- The responses provided are under review by the Contract Administrator and further discussion with the Contractor is taking place.

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

- The development of a construction services agreement with MB Hydro is ongoing.
- A meeting to discuss the construction services agreement was held in May 2017 between Senior City staff and Manitoba Hydro.
- A construction services agreement was forwarded to Manitoba Hydro. Their response is pending.

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

- The appeal report outlining the background and rationale of the determinations that were made and appealed by the Contractor has been issued to the Director's office.

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

- The Contractor has appealed the assessment of liquidated damages.
- The Department is preparing an appeal report for the CFO.

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

- The contract work is progressing and is considered behind schedule by the contract Administrator.
- The Contract Administrator has communicated schedule concerns to the Contractor's Head Office. The response received identified further productivity improvements that the Contractor is implementing and their confidence that the contractual completion dates can be achieved.
- The Contract Administrator continues to assess the schedule performance.
- Contractor has appealed a number of determinations made by the Contract Administrator. The Department is preparing an appeal report for the CFO.

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

- The Bid Opportunity closed on July 28, 2017, with bids being received as follows:

NAC Constructors Ltd.	\$179,997,000.00
PCL/T&M – A Joint Venture	\$181,869,679.31*
Graham-Aecon Joint Venture	\$186,990,586.60
Suer & Pollon Mechanical	\$246,623,150.00*

 - * Corrected due to mathematical error.
- The Pre-bid Estimate was \$205,016,503.00.
- An Award Report to Standing Policy Committee on Water and Waste, Riverbank Management and the Environment recommending to award the work to the lowest responsive bidder, NAC Constructors Ltd. for an amount of \$179,997,000 (MRST Included, GST Extra) has been issued for the Committee's consideration at the October 2, 2017 meeting.

Table 1 – Contracts

Contracts							
Bid Opportunity	Company Name	Description	Original Contract Award Value (GST & MRS extra as applicable)	Total Approved Over Expenditures (Over Expenditure amount only)	Date of Award	Date of Total Completion	Estimated % Complete
682-2012	CH2M Hill Canada Ltd.	Professional Consulting Services for SEWPCC Upgrading and Expansion	\$ 25,350,419	\$ 6,233,179	4/29/2013		75
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		5
873-2013	Veolia Water Technologies Canada Ltd.	Procurement of High Rate Clarification Equipment	\$ 2,052,500	\$ -	7/10/2014		10
333-2014	PCL Constructors Canada Ltd.	Contract 1 - Site Preparation Works	\$ 22,646,510	\$ -	9/4/2014		96
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 and Engineering LP	Contract 2 - High Rate Clarifier and Grit Removal Concrete and Miscellaneous Works	\$ 9,549,100	\$ -	10/20/2015		96
899-2015	NAC Constructors Ltd.	Contract 3 - Bioreactors, Blower Building and Secondary Clarifiers Structural Concrete & Miscellaneous Work	\$ 39,756,000	\$ -	5/3/2016		60
797-2016	Manitoba Hydro	Relocation of existing primary electrical service cables	\$ 71,754	\$ -	9/7/2016	1/16/2017	100
Total			\$ 107,651,596	\$ 6,233,179			

Upcoming Procurements:

Description	Anticipated Award Date
976-2016 CONTRACT 4 – SITEWIDE MECHANICAL, ELECTRICAL, CONCRETE AND SITE WORKS	Oct-17

Schedule (Update from last report)

n/a

Table 2 – Milestones

Milestones					
	Deliverable	Original Targeted Completion Date	Revised Targeted Completion Date	Actual Completion Date	Estimated % Complete
1	Complete Project Definition Report	October 2013	May 2014	May 2014	100
2	Complete Preliminary Design Report	April 2014	November 2014	November 2014	100
3	Start Detailed Design	April 2014	March 2014	March 2014	100
4	Start Construction of Site Preparation and Piling (Contract 1)	October 2014		October 2014	100
5	Start Construction on High Rate Clarifier and Grit Removal Structural and Misc. Works (Contract 2)	November 2015		November 2015	100
6	Start Construction Major Concrete Works (Contract 3)	May 2015	May 2016	May 2016	100
7	Start Construction of Remaining Works (Contract 4)	October 2017	October 2017		
8	Complete Commissioning of interim BNR configuration	October 2016	July 2020		
9	Complete Commissioning of all project components ¹	September 2021			

¹ Manitoba Sustainable Development Notice of Alteration dated September 12, 2017 - City of Winnipeg South End Water Pollution Control Centre (SEWFCC) - 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.

Risk (Update from last report)

Risk: Contract 4 construction takes longer than planned.

Mitigation: Key construction milestones with linked liquidated damages incorporated into the Contract 4 bid opportunity.

The next quarterly construction risk review is scheduled for September 7, 2017.

Table 3 – Significant Risks and Mitigations Strategies

Significant Risks and Mitigation Strategies	
Risk Statement and Explanation	Risk Mitigation Management Plan
New:	
Contract 4 construction work takes longer than planned.	Key construction milestone dates with linked liquidated damages incorporated into Contract 4 bid opportunity.
Ongoing:	
Unknown existing conditions are encountered during construction causing schedule delays and additional costs. Internal condition of HPO Reactors is unknown.	Shutdown and interior inspection of existing HPO Reactor scheduled for fall of 2017.
During construction plant operations could be affected by construction tasks and construction work could be impacted by ongoing operational needs.	Detailed construction sequencing and commissioning plans developed. Detailed control system migration plan developed. These form part of C4 bid opportunity documents.
Mitigated:	
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.

Financial (Update from last report)

For further information, refer to Appendix B – Financial Forecast.

The recommended award value for Bid Opportunity 976-2016 Contract C4 – Sitewide Mechanical, Electrical, Concrete and Site Works is within the budget but greater than originally anticipated by the Consultant's earlier Class 3 cost estimate used to establish the overall project budget. As such 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

Funding Forecast and Receivable			
Funding Source	Adopted Budget (In millions)	Amended Budget (In millions)	Committed (In millions)
Class of Estimate	Class 3		
City of Winnipeg	298.18	276.18	276.18
Province of Manitoba	6.08	17.08	17.08
Federal Government of Canada	31.34	42.34	42.34
Other Contributions	-	-	-
Total	\$ 335.6	\$ 335.6	\$ 335.6

- The funding forecast should match the Capital Budget Detail Sheet.

Property Acquisition (Update from last report)

n/a

Stakeholder Engagements/Communications (Update from last report)

n/a

Subsequent Events after Report Period End Date

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 construction and commissioning of the upgraded wastewater treatment plant is to be completed before December 31, 2021.

FINANCIAL IMPACT

Financial Impact Statement **Date:** **September 26, 2017**

Project Name:

**South End Sewage Treatment Plant (SEWPCC) Upgrading
and Expansion,**

Project ID: 20320002EL, 2032000207 and 203210002B,

Quarterly Project Status Report No. 15

For the Period Ended July 31, 2017

COMMENTS:

As this report is submitted for informational purposes only, there is no financial impact associated with this recommendation.

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

Lucy Szkwarek, CPA, CGA

Manager of 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

Prepared by: N. A. Harrington P. Eng. Senior Project Engineer

Date: October 30, 2017

Appendices

Appendix A – Key Project Facts

Appendix B – Financial Forecast

Appendix C – Key Project Events (History)

Appendix D - Funding

Appendix A – Key Project Facts

Appendix A – Key Project Facts	
Project Name	South End Sewage Treatment Plant (SEWPCC) Upgrading and Expansion
Business Owner (Department)	Water and Waste
Project ID	20320002EL, 2032000207 and 203210002B
Project Sponsor	Director of Water and Waste
Department Responsible for Project Delivery	Water and Waste
Consultant Engineer (Company Name)	CH2M Hill Canada Ltd.
Adopted Budget	\$335,600,000
Class of Estimate (Adopted)	3
Range of Estimate (Adopted)	-20% to +30% \$268,500,000 to \$436,300,000.
Amended Budget	\$335,600,000
Class of Estimate (Amended)	3
Range of Estimate (Amended)	-20% to +30% \$268,500,000 to \$436,300,000.
Project Scope	
<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>	
Major Capital Projects Advisory Committee Membership:	
<p>Doug McNeil, Chief Administrative Officer Georges Chartier, Chief Asset and Project Management Officer Moira Geer, Director of Water and Waste Lucy Szkwarek, Acting Manager of Finance and Administration, Water and Waste Jackie Veilleux, Project Director Winnipeg Sewage Treatment Program</p>	

Appendix B – Financial Forecast

**Appendix B - SEWPCC Upgrading and Expansion Project Financial Forecast
As at July 31, 2017**

Project Component Deliverables ¹	Budget (In 000's)			Actual Costs To July 31, 2017	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							
					2017	2018	2019	2020				
Engineering, Design and Other	\$ 45,351	\$ -	\$ 45,351	\$ 36,519	\$ 2,639	\$ 4,313	\$ 3,386	\$ 1,933	\$ 48,957	\$ (3,606)	\$ (3,606)	\$ -
Construction	\$ 257,242	\$ -	\$ 257,242	\$ 59,611	\$ 26,679	\$ 57,533	\$ 51,113	\$ 57,466	\$ 277,239	\$ (19,997)	\$ (46,227)	\$ 26,230
Land Acquisition	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Internal Financing/Overhead Costs	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Contingency	\$ 33,007	\$ -	\$ 33,007	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 9,404	\$ 23,603	\$ 12,496	\$ 11,107
Total Project Budget	\$ 335,600	\$ -	\$ 335,600	\$ 96,130	\$ 29,318	\$ 61,846	\$ 54,499	\$ 59,399	\$ 335,600	\$ -	\$ (37,337)	\$ 37,337
% of Project Budget Spent (Actual Costs to Date / Adopted & Amended Budget)	29%		29%									

¹ 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.

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.

The project budget includes the following Project Identifications:

Project ID	Project Year	Adopted Budget
20320002EL ¹	2002	\$ 222,752
2032000207 ¹	2007	\$ 10,695,000
203210002B	2012-2015	\$324,682,248
Total Project Budget		\$335,600,000

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

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.

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 cost estimate for Contract 4 (C4), which has an identified accuracy range of -10% to +10% is higher than the project allocation for this work. The current project budget of \$335.6 million was based on a Class 3 cost estimate which had an AACE 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

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

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	\$ 11.02	\$ 6.08	\$ 20.32		\$ 31.34	\$ 6.08	\$ 109.58
GIF Wet Weather	60.0	4.35	6.44	6.65	4.56	11.00	11.00	38.00
Other	128.6					-	-	128.60
Estimated Program Costs	\$ 335.60	\$ 15.37	\$ 12.52	\$ 26.97	\$ 4.56	\$ 42.34	\$ 17.08	\$ 276.18

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	\$ 33.23	\$ 5.07	\$ 8.19			\$ 5.07	\$ 8.19	\$ 19.97
NEWPCC Centrate and UV Disinfection	52.08	5.59	14.54			5.59	14.54	31.95
SEWPCC Nutrient Removal/Expansion	335.60	15.37	12.52	26.97	4.56	42.34	17.08	276.18
NEWPCC Nutrient Removal/Upgrade	795.59		33.54		161.46	-	195.00	600.59
Estimated Program Costs	\$ 1,216.50	\$ 26.03	\$ 68.79	\$ 26.97	\$ 166.02	\$ 53.00	\$ 234.81	\$ 928.69

Notes:

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

