Minutes – Standing Policy Committee on Finance – June 5, 2018

REPORTS

Item No. 4 North End Sewage Treatment Plant (NEWPCC) Biological Nutrient Removal Upgrade

STANDING COMMITTEE DECISION:

The Standing Policy Committee on Finance concurred in the recommendation of the Winnipeg Public Service and received the report as information.

DECISION MAKING HISTORY:

Moved by Councillor Mayes,

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

Carried

ADMINISTRATIVE REPORT

Title: **North End Sewage Treatment Plant (NEWPCC) Biological Nutrient Removal Upgrade,**
Project ID: 2031001304, 2031001310 and 203110013B,
Quarterly Project Status Report No. 14
For the Period Ended February 28, 2018

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: 2% **Percent of Adopted Budget Spent:** 2%

The City has received a new conceptual design project cost estimate from the design consultant indicating higher costs than the currently approved budget of $795.59 million (Class 5 estimate, range $397.8 million to $1.59 billion). The cost of the NEWPCC Biological Nutrient Removal Upgrade project is estimated to be $1.4 billion. There could be a risk to the schedule due to the budget constraint. The procurement strategy is being reviewed to look at mitigating opportunities. A Class 3 estimate is expected in July.

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 North End Sewage Treatment Plant (NEWPCC) Biological Nutrient Removal Upgrade, 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 $22 million (2018) 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)

(Update from last report)

NEWPCC Power Supply Upgrade - Update from last report

This project is in the Design Build procurement phase.

- **RFP 40-2014:** KGS Group (Owner's Advocate) is closing out the phase 1 work requirements associated with design build RFP 599-2015B. Phase 2 contract of the owner's advocate work for professional engineering services during construction is under review per RFP 40-2014.
- **RFP 10-2015:** Knowles Consultancy (Fairness Advisor) provided fairness monitoring and advisory services through the RFP closing and evaluation periods. The contract will close after execution of the Design Build Agreement (599-2015B).
- **RFP 599-2015B**: Black & McDonald Ltd. was selected as the Preferred Proponent. Negotiations and contract execution with the Preferred Proponent are underway. Once the contract is awarded and construction is ready to progress, an area north of the site, along Highland Avenue, will be allocated as a laydown / construction staging area for the Design Builder.
- **RFP 773-2016:** Manitoba Hydro completed the Load Interconnection Facilities Study for the North End Sewage Treatment Plant (NEWPCC).
- **RFP 136-2017:** Blakes Cassels & Graydon (Legal advisor) have completed their primary services and are being retained on an as-needed basis until the execution of the Design Build Agreement.
- **RFP 42-2018:** Executive Policy Committee concurred with a recommendation that a single source negotiation with Manitoba Hydro be approved, for the provision of two 66 kV line interconnections for a new substation as well as one new 66 kV Manitoba Hydro feeder line for the North End Sewage Treatment Plant (NEWPCC). The Award of the contract is in progress.

The main NEWPCC Upgrade Project - **Update from last report**

This project is in the preliminary design stage.

- **RFP 182-2015:** AECOM (Owner's Advocate)
  - has submitted the enhanced preliminary design – 75% complete and continues to work on finalizing the technical requirements.
  - Is preparing a bid opportunity for the clean-up and leveling of a small section of the project site to allow the communication tower to be moved next year.
  - Together the WSTP is reviewing the procurement strategy.
- **RFP 866-2016:** Cambi continues to work with AECOM to provide the technical requirements for their thermal hydrolysis equipment.

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**
NEWPCC Power Supply Upgrade							
40-2014	KGS Group Inc	Professional Engineering Consulting Services for the NEWPCC Power Supply Upgrade – Phase 1	$ 1,180,110	$ 64,372	7-Nov-2014	-	95
10-2015	Knowles Consultancy Services Inc	Fairness Advisor for the NEWPCC Power Supply Upgrade Project	$ 37,620	$ 44,260	8-May-2015	-	90
599-2015 A[1]	Pre-qualified parties are Black & McDonald Limited Wescan Electrical Mechanical Services	Request for Qualifications for Design Build of the City of Winnipeg's North End Sewage Treatment Plant Power Supply Upgrade Project	N/A	N/A	N/A	-	100
599-2015 B [2]	Black & McDonald Limited	Request for Proposal for Design Build of the City of Winnipeg's North End Sewage Treatment Plant Power Supply Upgrade Project	$ 35,061,209	$ -	TBD	-	0
816-2015	Hanscomb Limited	Cost Consultant for the NEWPCC Power Supply Upgrade Project	$ 45,040	$ -	16-Dec-2015	2-Aug-17	100
773-2016	MB Hydro	Professional Consulting Services For Load Interconnection Facilities Study For The North End Sewage Treatment Plant (NEWPCC)	$ 150,000	$ -	7-Nov-2016	10-Jan-18	100
136-2017	Blakes Cassels & Graydon LLP	External Legal Counsel - NEWPCC Power Supply Project	$ 95,575	$ -	14-Dec-2016	-	90
42-2018	MB Hydro	Manitoba Hydro Works Associated with the North End Sewage Treatment Plant (NEWPCC) Biological Nutrient Removal Upgrade Project	$ 2,531,527	$ -	TBD	-	-
The main NEWPCC Upgrade Project							
506-2014	Ostara Nutrient Recovery Technologies Inc	Supply and Delivery of a Struvite Recovery System	TBD	$ -	23-Jul-2015	-	-
182-2015	AECOM Canada Ltd	Professional Engineering Consulting Services for the North End Sewage Treatment Plant (NEWPCC) Upgrade – Phase 1	$ 16,015,439	$ 354,746	6-Jan-2016	-	45
866-2016	Cambi Inc.	Pre-Selection and Design Services for Thermal Hydrolysis Process System for the North End Sewage Treatment Plant	$ 75,000	$ -	15-Jun-2017	-	80
9-2017	P1 Consulting Inc	Request for Proposal for a Fairness Advisor for the North End Sewage Treatment Plant Upgrade Project	$ 82,880	$ -	2-May-2017	-	-
102-2017	Blakes Cassels & Graydon LLP	External Legal Counsel - NEWPCC Ugrade Project	$ 358,800	$ -	23-Nov-2017	-	-
		Total	**$ 55,633,200**	**$ 463,378**			

[1]This is the first stage of two stage process and the contract value will be determined in the second stage

[2]The Preferred Proponent for 599-2015 B has been selected and Execution of the Design Build Agreement is targeted for Q2 2018. The Original Contract Award Value for 599-2015 B includes MRST.

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
NEWPCC Power Supply Upgrade					
1	Project Definition Report [1]	2015 Q3	2015 Q4	2015 Q4	100
2	Preliminary Design Report	2016 Q1	2016 Q4	2017 Q1	100
3	Cost Report [2]	2017 Q1	2017 Q2	2017 Q3	100
4	Design Build RFP	2016 Q2	2017 Q1	2017 Q1	100
5	Design Builder Contract Award	2017 Q2	2018 Q2	-	90
6	Design Build Substantial Performance	2020 Q2	-	-	-
7	Design Build Total Performance	2020 Q4	-	-	-
The main NEWPCC Upgrade					
1	Project Definition Report [1]	2017 Q2	2017 Q2	2017 Q2	100
2	Preliminary Design Report	2018 Q1	2018 Q2	-	75
3	Cost Report [2]	2018 Q3	-	-	-
4	Design Build RFP [3]	TBD	-	-	-
5	Design Builder Contract Award [3]	TBD	-	-	-

[1] Owner's Advocate Class 5 Estimate

[2] Cost Consultant Class 3 Estimate

[3] The procurement strategy is under review

Risk (Update from last report)

There are no new risks associated with the NEWPCC Power Supply Upgrade and the main NEWPCC Upgrade projects.

Table 3 – Significant Risks and Mitigations Strategies

NEWPCC Power Supply Upgrade	
Significant Risks and Mitigation Strategies	
Risk Statement and Explanation	**Risk Mitigation Management Plan**
New:	
None	
Ongoing:	
A Construction Agreement with Manitoba Hydro is required to have Manitoba Hydro perform their portion of the required work. Failure to obtain a timely Construction Agreement with Manitoba Hydro would result in project delay and additional costs.	Regular communication with Manitoba Hydro.
There may be unknown geotechnical conditions that impact the project schedule and cost.	A preliminary geotech study was performed by the Owners Advocate. Part of the risk will be transferred to the DB and the remainder will be retained by the City.
The existing substation is owned by Manitoba Hydro and it's environmental condition is unknown. Substation environmental issues may be identified through the course of the project resulting in project delays and additional costs.	It is planned for Manitoba Hydro to provide a basic assessment of the environmental contamination inside the substation and for the City to perform an environmental assessment outside the substation. (The environmental assessment outside the substation is now complete).
Safety issues could occur as a result of increased traffic on the NEWPCC site.	The Design Builder will be required to develop plans that address construction traffic and will be largely limited to a separate entrance to the plant.
Manitoba Hydro may not have the required power available within the required timeframe.	Ongoing close coordination with Manitoba Hydro and will obtain commitments from Manitoba Hydro based upon a firm schedule.
As part of construction activities, the power in an area believed to be de-energized could be energized resulting in a potential shock or arc flash and associated injury and equipment damage.	Ensure that the Design Builder has an appropriate Health and Safety Plan, Construction Phasing Plan and Interface Plan.
There will be a period during construction when only a single power line will be active. In the event of a construction induced failure of that single line there could be a complete loss of power to the site along with the associated process consequences.	Contractually limit time that only a single line will be active and ensure contractual consequences to Design Builder induced power outages are in place.
Mitigated:	
Old electrical equipment and building parts may contain asbestos.	Provide City hazardous material inventory as part of reference material and require Design Builder to perform detailed additional items. Ensure that DBA includes clear requirement for the Design Builder to manage this risk.
The Design Builder is not familiar with the existing equipment labelling, some of which may be confusing due to historical issues and thus there is a possibility of incorrect switching or electrical lock-out resulting in a potential shock or arc flash and associated injury and equipment damage.	City to carry out electrical switching of all equipment outside of the Design Builder's scope of work. Design Builder to prepare detailed plans of all switching events.

The Main NEWPCC Upgrade	
Significant Risks and Mitigation Strategies	
Risk Statement and Explanation	**Risk Mitigation Management Plan**
New:	
None	
Ongoing:	
The Project cost may be affect due to project costs now estimated to be $1.4 billion	The procurement strategy will be reviewed for mitigating opportunities
There may be unknown conditions that may be associated with reusing existing facilities.	The DB agreement to include mechanism to deal with unforeseen conditions of existing facilities. Proponents will also be provided access to the site for due diligence and examination.
Assumptions made on the grit quantities in the sludge may not be appropriate resulting in damage to grit sensitive equipment and under sizing of sludge facilities.	A grit characterization study of the sludges from the City's sewage treatment plant will be carried out to quantify the grit in the sludge.
No existing legislation on odour release threshold causing potential impact and complaints from neighbors resulting in post - construction renovations or changes in operation at additional cost.	WSTP to define industry norm quantifiable odour limits and implement into DB design and performance requirements. A Field Study is ongoing.
Project cost exceeds anticipated budget resulting in project delay and increased costs for implementation.	A Class 5 cost estimate for the project is being prepared by the owner's advocate. This will be compared against existing budget and reconciliation of changes will be developed. Additionally, a Class 3 cost estimate will be carried out after preliminary design to validate budget.
Unknown existing conditions related to geotechnical, environmental and hazardous material may be encountered during construction causing schedule delays and additional costs.	Geotechnical investigations and environmental impact assessments are being carried out prior to construction to minimize unknowns. It is also anticipated that contracting with a single entity responsible for construction risks would minimize impact.
Mitigated:	
None	

Financial (Update from last report)

N/A

For further information, refer to Appendix B – Financial Forecast

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 millons)**	**Committed (in millions)**
Class of Estimate	**Class 5**		
City of Winnipeg	**795.59**	**795.59**	**795.59**
Retained Earnings	87.64	87.64	87.64
External Debt	690.29	690.29	690.29
Environmental Projects Reserve	17.66	17.66	17.66
Province of Manitoba*	-	-	-
Federal Government of Canada	-	-	-
Total	**795.59**	**795.59**	**795.59**

*An agreement has not yet been signed for the $195 million committed by the Province of Manitoba in its 2007 Throne Speech (of w hich $33.54 million has been provided so far [Appendix D]). For that reason it is not included in the table above.

Property Acquisition (Update from last report)

N/A

Stakeholder Engagements/Communications (Update from last report)

N/A

Subsequent Events after Report Period End Date

N/A

FINANCIAL IMPACT

Financial Impact Statement **Date:** May 3, 2018

Project Name:
North End Sewage Treatment Plant (NEWPCC) Biological Nutrient Removal Upgrade,
Project ID: 2031001304, 2031001310 and 203110013B,
Quarterly Project Status Report No. 14
For the Period Ended February 28, 2018

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 & 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 NEWPCC Biological Nutrient Removal Upgrade 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: R. Y. Adedapo, M.A.Sc., PMP, P. Eng. Senior Project Engineer

Date: May 3, 2018

File No. S-972

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	North End Sewage Treatment Plant (NEWPCC) Biological Nutrient Removal Upgrade
Business Owner (Department)	Water and Waste Department
Project ID	2031001304 , 2031001310 and 203110013B
Project Sponsor	Director of Water and Waste
Department Responsible for Project Delivery	Water and Waste Department
Consultant Engineer (Company Name)	KGS Group Consutling Engineers and AECOM Canada Ltd.
Adopted Budget	$795.6 million
Class of Estimate (Adopted)	Class 5
Range of Estimate (Adopted)	-50% to +100% $397.80 million to $1,591.18 million.
Amended Budget	$795.6 million
Class of Estimate (Amended)	Class 5
Range of Estimate (Amended)	-50% to +100% $397.80 million to $1,591.18 million.

Project Scope

The scope is to upgrade the North End Sewage Treatment Plant (NEWPCC) for expected 2037 flows and to meet new effluent limits for nitrogen and phosphorous. The upgrade will add wet weather treatment capability, a new facility to treat the sludge from all three sewage treatment plants and replace end-of-life equipment. The power supply will be upgraded as a seperate project to accommodate the additional power demand of the upgrades at the facility.

Major Capital Projects Advisory Committee Membership:

- Moira Geer, Director of Water and Waste Department (Chair)
- Doug McNeil, Chief Administrative Officer
- Dave Wardrop, Chief Transportation and Utilities Officer
- Georges Chartier, Chief Asset and Project Management Officer
- Lucy Szkwarek, Manager of Finance and Administration, Water and Waste
- Jackie Veilleux, Project Director, Winnipeg Sewage Treatment Program, Water and Waste

Appendix B – Financial Forecast

Appendix B - North End Sewage Treatment Plant (NEWPCC) Biological Nutrient Removal Upgrade Financial Forecast*

As at February 28, 2018

Project Component Deliverables	Budget (in 000's)			Expenditure Forecast (in 000's)								Variance Last Report	Change in Variance
	Adopted Budget	Council Approved Change**	Amended Budget	Actual Costs To February 28, 2018	Projected Costs 2018	2019	2020	2021	2022 and Beyond	Total Forecasted Costs	Surplus (Deficit) From Amended Budget		
Engineering, Design and Other	$ 57,196	$ -	$ 57,196	$ 13,640	$ 5,884	$ 7,197	$ 8,860	$ 6,797	$ 15,281	$ 57,659	$ (463)	$ (463)	$ -
Construction	$ 621,011	$ -	$621,011	$ 451	$ 5,561	$ 4,527	$ 115,669	$ 151,415	$ 343,388	$ 621,011	$ -	$ -	$ -
Land Acquisition	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Internal Financing/Overhead Costs	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Contingency	$ 117,383	$ -	$117,383						$ 116,920	$ 116,920	$ 463	$ 463	$ -
[1]**Total Project Budget**	**$ 795,590**	$ -	$795,590	$ 14,091	$ 11,445	$ 11,724	$ 124,529	$ 158,212	$ 475,589	$ 795,590	$ -	$ -	$ -
(Actual Costs to Date / Adopted & Amended Budget)	2%		2%										

[1] Budget adjustment is not being requested at this time, procurement methodology is under review.

Appendix C – Key Project Events (History)

THE PROJECT

The goal of this project is to upgrade the North End Sewage Treatment Plant (NEWPCC) to meet new Regulatory Licence requirements regarding the maximization of nutrients and biosolids reuse and new effluent limits for nitrogen and phosphorous. The upgrade will also add wet weather treatment capability; add a new facility to treat the sludge from all three plants and replace end-of-life equipment. The Project design will accommodate expected influent flows and loads to 2037. It will also take into account future regulatory trends and long term planning to year 2067 to facilitate effective process or facility modifications should they be required.

A new power sub-station is required at the NEWPCC to accommodate the additional power demand of the upgrades at the facility. The power supply upgrade is being delivered as a separate project from the main NEWPCC upgrade to allow for early procurement of long-lead items such as transformers, to ensure that the electrical power upgrade is available for the new processes when needed.

The delivery method for NEWPCC Power Supply Upgrade Project is design build (DB). The work will replace the existing Manitoba Hydro substation on the site with a City owned substation. The main NEWPCC Upgrade Project will be largely a DB project with a small scope being procured as design bid build (DBB).

The upgraded facility will have an economical whole-life cost and be an efficient and safe workplace for operational personnel. In addition, the plant must operate continuously during the work and continue to meet current effluent limits. The impact of construction and commissioning to the treatment's facility capability will be minimized as much as possible.

The Adopted Budget to date for the NEWPCC – Nutrient Removal/Upgrade is $795.59 million (Class 5 Estimate). The NEWPCC – Nutrient Removal/Upgrade adopted project budget includes the following Project Identifications:

Project ID	Project Year	Adopted Budget
2031001304 [1]	2004	$ 213,958
2031001310[1]	2010	$ 304,829
203110013B	2012 – 2017	$ 795,071,171
Total Adopted Budget		$ 795,589,958

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

In 2003 Clean Environment Commission Hearings on the City's wastewater collection and treatment systems, Manitoba Conservation and Water Stewardship (now Manitoba

Sustainable Development, the Regulator) notified the City that it intended to issue a licence for the North End Water Pollution Control Centre (NEWPCC) that would require control of nutrients discharged to the Red River.
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.
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 May 6, 2009 the Environment Act Licence (EAL) No. 2684 RRR was issued for the NEWPCC.

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 June 16, 2011, the Save Lake Winnipeg Act amending sections of the Water Protection Act (Act) came into effect. Section 4.2(3) of the amended Act requires the City to submit a plan that details how the City will comply with subsections 4.2(1) and (2).

The NEWPCC Upgrading Plan was submitted to the Regulator in compliance with Section 4.2(3) of the amended Water Protection Act on June 15, 2012. The Regulator approved the Upgrading Plan on October 2, 2012. The Department submitted the NEWPCC Master Plan and the revised NEWPCC Master Plan on September 27, 2013 and April 28, 2014 respectively. The Master Plan was approved by the Regulator on May 29, 2014.

In the Regulator’s Licence alteration Letter dated December 30, 2014, the project completion date was specified as December 2019. However, the Regulator was notified on June 23, 2016 that the project schedule was not achievable. Manitoba Sustainable Development acknowledged receipt of this notice on August 16, 2016 and indicated they had “no concerns at this time.” Regular schedule updates and progress reports continue to be submitted to MB Sustainable Development on a quarterly basis.

In the second quarter of 2017, the Department reported that an updated conceptual design project cost estimate was received from the design consultant. This new information indicated costs over a billion dollars, much higher than the currently approved budget of $795.59 million (Class 5 estimate).

RISKS AND RISK MITIGATION STRATEGIES

There are risks associated with the cost and schedule for a project that is this large and complex especially at the early stages. In addition, the final bid amounts for projects are unknown until the project agreement is finalized with the Design Builder.

The Adopted Budget to date, $795.59 million, is based on a Class 5 cost estimate which has an Association for the Advancement of Cost Engineering (AACE) expected accuracy range of -50% and + 100% or $397.80 million to $1,591.18 million. However, the project cost is estimated to be $1.4 billion. There could be a risk to the schedule due to the budget constraint.

In consultation with our engineering advisors, it was necessary to make estimates about the pace of engineering design and the pace of construction. Any delays typically result in increases in cost.

An ongoing risk management strategy has been implemented for both the main NEWPCC Upgrade and the NEWPCC Power Supply Upgrade Projects. It includes a proactive process of identifying risks, performing qualitative and quantitative risk analyses, creating response plan strategies and ongoing monitoring. The risk management process is an active part of the management of the projects. The projects will also incorporate structured Hazard and Operability Analysis and a Construction Hazard Assessment Implication Review. Since detailed design and construction will be carried out through a DB contract, the WSTP will be transferring as much risk as reasonable to the Design Builder.

The Risk Registers for each of the Projects contain cost and schedule risks associated with design, procurement, construction, operation and unknown events. The Risk Register is reviewed and updated regularly by the WSTP.

Appendix D - Funding

Funding: North End Sewage Treatment Plant (NEWPCC) and Winnipeg Sewage Treatment Program (WSTP)

1) Funding from other levels of government for the NEWPCC is as follows:

NEWPCC Nutrient Removal/Upgrade (in $millions)	Total Cost	Funded to Date		Funding Pending		Total Funding		City Share of Costs
		Canada	Manitoba	Canada	Manitoba	Canada	Manitoba	
Provincial Funding								
Environment Act Licence Driven[1]	$ 635.59		$ 33.54		$ 161.46	$ -	$ 195.00	$ 440.59
Other [2]	160.00							160.00
Estimated Program Costs	**$ 795.59**	**$ -**	**$ 33.54**	**$ -**	**$ 161.46**	**$ -**	**$ 195.00**	**$ 600.59**

[1] Includes portion of Biosolids costs driven by the Environmental Act Licence
An agreement has not yet been signed for the $195 million committed by the Province of Manitoba in its 2007 Throne Speech.

[2] Includes end of life equipment/building, relocation of communication tower and ancillary services

2) Funding from other levels of government 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 [3]	$ 33.23	$ 5.07	$ 8.19			$ 5.07	$ 8.19	$ 19.97
NEWPCC Centrate and UV Disinfection[3]	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**	**$ 68.78**	**$ 26.97**	**$ 166.02**	**$ 53.00**	**$ 234.81**	**$ 928.69**

[3] WEWPCC Biological Nutrient Removal and NEWPCC Centrate and UV Disinfection have been completed.