

**Minutes – Standing Policy Committee on Finance and Economic Development –
May 10, 2024**

REPORTS

**Item No. 3 South End Sewage Treatment Plant (SEWPCC) Upgrading and
Expansion, Project ID: 20320002EL, 2032000207, and 203210002B,
Quarterly Project Status Report No. 38 For the Period Ended
February 29, 2024**

STANDING COMMITTEE DECISION:

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

**Minutes – Standing Policy Committee on Finance and Economic Development –
May 10, 2024**

DECISION MAKING HISTORY:

Moved by Councillor Orlikow,

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. 38 For the Period Ended February 29, 2024

Critical Path: Standing Policy Committee on Finance and Economic Development

AUTHORIZATION

Author	Department Head	CFO	CAO
B. Jones, P. Eng., Acting Manager of Engineering Services	T. W. Shanks, M. Eng., P. Eng., Director, Water and Waste Department	C. Kloepfer	M. Jack

EXECUTIVE SUMMARY

Project On Schedule: Yes No

Project On Adopted Budget: Yes No

Percent of Schedule Complete:

Percent of Adopted Budget Spent:

The Amended Capital Budget for the South End Sewage Treatment Plant (SEWPCC) Upgrading and Expansion is \$375.6 million, with expenditures to date totaling \$339.1 million. A total of \$8.5 million was spent during this reporting period.

During this reporting period the C4 Contractor focused on the following:

- Handover of the Biological Nutrient Removal (BNR) area was successfully completed
- Demonstration testing and commissioning of the UV system is nearing completion. The UV Weir Gate was isolated to repair a leak
- Testing of the high rate clarifier (HRC) systems occurred, further testing efforts will be required
- The new headworks area (Area G) was successfully handed over
- Automation works for various areas is ongoing
- Construction works continued for the fermenters and odour control process areas. Delamination of chemical resistant coatings in these areas has occurred. Repairs are ongoing

The C4 Contractor remains behind schedule based on missing key contractual schedule milestones, including the Total Performance date of January 20, 2022. The C4 Contractor's schedule and performance is being closely monitored.

As of February 29, 2024, there are a total of 23 open appeals. During this reporting period 42 appeals were resolved and two new appeals were submitted. The City and Contractor continue to work towards collaborative resolution of appeals.

Plant effluent continues to meet licence conditions for total phosphorous (TP). Total nitrogen (TN) concentrations are higher in winter periods and are anticipated to exceed the licence limits for a portion of this reporting period.

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

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 \$25 million (2023) or more report quarterly to the Standing Policy Committee on Finance and Economic Development. This threshold is reviewed at the beginning of each multi-year budget cycle. The Standing Policy Committee on Finance and Economic Development 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)

- The Consultant continues to provide Contract Administration services and develop operational documents
 - Delay by the C4 Contractor extends the requirement for the Consultant to be on site to provide technical oversight and direction

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

- The C4 Contractor continues construction activities for the fermenters and odour control process areas. Delamination of chemical resistant coatings in these areas has occurred. Repairs have started and are anticipated to be complete early Q2 2024
- UV equipment replacement and upgrade works have been completed in both the south and north channels enabling treatment of flows up to 225 MLD. Commissioning of the UV system has started and is anticipated to be completed by the end of Q1 2024. The UV Weir Gate was isolated in February to repair a leak and is scheduled to be put back in service in March 2024
- The Contractor successfully handed over the BNR and blower building on December 4, 2023
- Testing of the HRC systems occurred during the last week of February 2024, further testing efforts will be required
- The Headworks Area (Area G) has been successfully commissioned and handed over on January 15, 2024
- The project team continues to work with the C4 Contractor to resolve outstanding appeals. During this reporting period 42 appeals were resolved and 2 new appeals were submitted

Table 1 – Contracts

Contracts							
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 Total Completion	Estimated % Complete
682-2012	CH2MHill Canada Ltd.	Professional Consulting Services for SEWPCC Upgrading and Expansion	\$ 25,350,419.00	\$ 32,933,179.00	4/29/2013		93%
871-2013	Veolia Water Technologies Canada Ltd.	Procurement of Free-Floating Media and Associated Appurtenances	\$ 7,750,588.00	\$ 3,112,144.00	12/11/2014		79%
873-2013	Veolia Water Technologies Canada Ltd.	Procurement of High Rate Clarification Equipment	\$ 2,052,500.00	\$ 107,300.00	7/10/2014		80%
333-2014	PCL Constructors Canada Ltd.	Contract 1 - Site Preparation Works	\$ 22,646,510.00		9/4/2014		98%
601-2015	Graham Construction and Engineering LP	Contract 2 - High Rate Clarifier and Grit Removal Concrete and Miscellaneous Works	\$ 9,549,100.00		10/20/2015		98%
976-2016	NAC Constructors Ltd.	Contract 4 - Site wide Mechanical Electrical Concrete site works	\$ 179,997,000.00	\$ 7,500,000.00	10/4/2017		89%
1056-2019	Duboff Edwards Haight & Schachter	External legal services related to the SEWPCC Project	\$ 750,000.00		11/7/2019		85%
	Completed contracts	N/A	\$ 42,129,759.00	\$ 7,499.00	N/A	N/A	100%
Total			\$ 290,225,876.00	\$ 43,660,122			

Upcoming Procurements:

Description	Anticipated Award Date

Schedule (Update from last report)

The overall project schedule is impacted by the delamination noted in the fermenters and odour control tanks as it delays critical path activities. A remediation plan was provided by the

contractor and accepted by the project team. Repair activities have commenced. A revised schedule will be provided in March 2024.

Table 2 – Milestones

	Deliverable	Original Targeted Completion Date	Revised Targeted Completion Date	Actual Completion Date	Estimated % Complete
1	Project Definition Report	2013Q4	2014Q2	2014Q2	100%
2	Preliminary Design Report	2014Q2	2014Q4	2014Q4	100%
3	Detailed Design	2014Q4	2017Q3	2017Q3	100%
4	Construction of Site Preparation and Piling (Contract 1)	2014Q2	2016Q1	2016Q1	100%
5	Construction of High Rate Clarifier and Grit Removal Structural and Misc. Works (Contract 2)	2016Q3	2017Q1	2017Q1	100%
6	Construction of Major Concrete Works (Contract 3)	2017Q4	2018Q3	2018Q3	100%
7	Construction of Remaining Works (Contract 4)	2021Q4	2024Q2		95%
8	Commissioning of interim BNR configuration (Contract 4)	2016Q4	2022Q4	2022Q4	100%
9	Commissioning of all project components (Contract 4) ¹	2021Q3	2024Q2		85%

¹ 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)

During this reporting period, testing of the HRC systems by Veolia Water Technologies occurred, however did not meet the performance guarantees stipulated in the contract (Bid Opportunity No. 873-2013). During shutdowns or high flow events, there is a risk the plant effluent may exceed licence requirements or higher than anticipated operational costs may be incurred. Further testing efforts will be required.

The following are updates for ongoing risks for this reporting period.

- Delamination in certain areas of the fermenters and odour control tanks has occurred. The extent of the delamination has been determined through destructive testing, non-destructive testing, and visual inspections. A remediation plan was prepared by the Contractor and work has commenced. The impact on the schedule is currently being evaluated by the Contractor and a revised schedule is to be provided in March 2024.

Table 3 – Significant Risks and Mitigations Strategies

Significant Risks and Mitigation Strategies	
Risk Statement and Explanation	Risk Mitigation Management Plan
New:	
Supplied HRC equipment is not meeting performance guarantees outlined in the contract.	The Project Team is continuing to work with Veolia Water Technologies in an effort to remediate the performance issues encountered with the supplied equipment.
Ongoing:	
Delamination in certain areas with the fermenters and odour control tanks has been observed.	The extent of the delamination was determined. A remediation plan was provided by the Contractor and is being implemented.
The City's Builders Risk Policy for the SEWPCC upgrade expires December 31, 2023. Due to previous extensions, changes in the insurance market, more stringent underwriting criteria, reduction in capacity limits and the duration of this project, the current insurance carriers will no longer extend the policy. City Insurance Branch, along with their insurance broker, have reached out to multiple other carriers who have declined to provide a stand alone policy.	The City will self-insure the remainder of the C4 Contract. The City's Wrap-Up liability insurance is currently in place until June 30, 2024. The project team continues to work with the Insurance & Risk Financing Department in an effort to extend the Wrap-Up Liability insurance beyond June 30, 2024.
There is potential that the IFAS media release insurance settlement will be much less than the claim by the Contractor. If this is the case, the Contractor may file a claim for the remainder of the costs with the City.	The City's Risk branch is going to the insurance adjuster for clarification on the pending formal decision on this matter. The project has preserved rights to legal action.
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 typically substandard and/or incomplete.	Commissioning planning meetings are being held with the contractor. Engineer of Record continues to develop Integrated Wet Testing and Demonstration test plans for Contractor to follow.
Actual C4 Contract construction performance takes longer than planned.	Key construction milestone dates with linked liquidated damages incorporated into Contract 4.
COVID-19 Impact on construction schedule.	Contract Administrator and Contractor are working to manage the impact. Claim has been received by the project team, Revay Constructions Claims Consulting Firm conducted a third party review of the claim.
1.0 mg/L Biological Phosphorus Licence compliance date of December 31, 2020.	The project continues to meet Phosphorus licence requirements with the use of ferric chloride (Chemical Removal).
Mitigated:	
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.
Low flow work is not completed and the seasonal low flow work window is closing for 2023, putting the project at risk of increased costs and schedule extensions.	All 2023 low flow work has been completed.

Financial (Update from last report)

Refer to Appendix B – Financial Forecast.

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

Funding Forecast			
Funding Source	Adopted Budget (in millions)	Amended Budget (in millions)	Committed (in millions)
Class of Estimate	Class 3	Class 3	Class 3
City of Winnipeg Total	298.18	316.18	316.18
Retained Earnings	75.82	75.82	75.82
External Debt	222.36	200.36	200.36
Environmental Projects Reserve ^{1, 2}		40.00	40.00
Province of Manitoba	6.08	17.08	17.08
Federal Government of Canada	31.34	42.34	42.34
Total	\$ 335.60	\$ 375.60	\$ 375.60

1 On May 27, 2021 Council approved a budget increase of \$16.5 million.

2 On July 21, 2022 Council approved a budget increase of \$23.5 million.

Property Acquisition (Update from last report)

N/A

Stakeholder Engagements/Communications (Update from last report)

The City continues to work with Manitoba Government as a licence stakeholder.

Subsequent Events after Report Period End Date

Leaks on the UV Weir Gate repair were discovered on March 11, 2024. Additional efforts will be made to repair the leak. The UV Weir Gate is anticipated to be back in-service on March 21, 2024.

FINANCIAL IMPACT

Financial Impact Statement

Date: **April 3, 2024**

Project Name:

**South End Sewage Treatment Plant (SEWPCC) Upgrading and Expansion,
20320002E1, 2032000207, and 203210002B,
Quarterly Project Status Report No. 38
For the Period Ended February 29, 2024**

Additional Comments:

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

Lucy 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

[Click here to enter text.](#)

This report aligns OurWinnipeg 2045, Policy 2.17 Regional Water Resource Management, by addressing long-term capacity of water-related systems including wastewater management.

Objective: Protect and value ecosystems as essential components to quality of life through municipal activities and urban environment.

WINNIPEG CLIMATE ACTION PLAN ALIGNMENT

N/A

WINNIPEG POVERTY REDUCTION STRATEGY ALIGNMENT

Consideration was given as to whether this report connects to the Winnipeg Poverty Reduction Strategy (PRS) and its Goals and Objectives, and it was determined that the PRS is not applicable to this specific report.

SUBMITTED BY

Department: Water and Waste Department
Division: Engineering Services
Prepared by: Josh Flynn, P. Eng., Project Engineer
Date: April 5, 2024
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

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	\$375,600,000
Class of Estimate (Amended)	3
Range of Estimate (Amended)	-20% to +30% \$300,500,000 to \$488,300,000.
<u>Project Scope</u>	
<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>Michael Jack, Chief Administrative Officer Moira Geer, Deputy Chief Administrative Officer Catherine Kloepfer, Chief Financial Officer Geoff Patton, Director of Assets and Project Management Danny Tooth, Acting Manager of Major Projects Oversight Tim Shanks, Director of Water and Waste Lucy Szkwarek, Manager of Finance and Administration, Water and Waste Linda McCusker, Acting Project Director Winnipeg Sewage Treatment Program</p>	

Appendix B – Financial Forecast

Appendix B - Project SEWPCC Upgrading and Expansion Financial Forecast As at February 29, 2024

Project Component Deliverables	Budget (in 000's)			Actual Costs To Feb. 29, 2024 ²	Expenditure Forecast (in 000's)				Surplus (Deficit) From Amended Budget	Variance Last Report	Change in Variance
	Adopted Budget	Council Approved Change	Amended Budget		Projected Costs			Total Forecasted Costs			
					2024	2025	2026				
Engineering, Design and Other	\$ 45,351	\$ -	\$ 45,351	\$ 72,584	\$ 1,948	\$ 1,125	\$ -	\$ 75,657	\$ (30,306)	(30,306)	\$ -
Construction	\$ 257,242	\$ -	\$ 257,242	\$ 266,517	\$ 20,581	\$ 5,521	\$ -	\$ 292,619	\$ (35,377)	(34,757)	\$ (620)
Land Acquisition	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	0	\$ -
Internal Financing/Overhead Costs	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	0	\$ -
Contingency	\$ 33,007	\$ 40,000	\$ 73,007	\$ -		\$ 7,324	\$ -	\$ 7,324	\$ 65,683	65,063	\$ 620
Total Project Budget	\$ 335,600	\$ 40,000	\$ 375,600	\$ 339,101	\$ 22,529	\$ 13,970	\$ -	\$ 375,600	\$ -		

% of Project Budget Spent (Actual Costs to Date / Adopted & Amended Budget)	101%	90%

1 Total budget of \$352.10 Million for the SEWPCC Upgrading and Expansion Project and Distribution of costs for Components was done by the Water and Waste Department. On May 27, 2021 Council approved a budget increase of \$16.5 Million, thereby revising the previous total budget of \$335.60 Million to the current \$352.10 Million. On July 21, 2022 Council approved a budget increase of \$23.5 Million, thereby revising the previous total budget of \$352.1 Million to the current \$375.6 Million. These are estimates and will be revised as the project progresses.

² 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 ¹	2002	\$222,752	\$222,752
2032000207 ¹	2007	\$10,695,000	\$10,695,000
203210002B	2012-2022	\$364,682,248	\$328,183,299
Total Project Budget		\$375,600,000	\$339,101,051

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.

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 processes 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 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.

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

In December 2020, a Notice of Alteration for the interim phosphorous control process at the SEWPCC was submitted to the Province. The Province did not approve the request and required additional reporting and the submission of a revised schedule to full completion. The City has been reporting project status to the Province on a monthly and quarterly basis.

In September 2021, following a meeting with the Province, the City requested an extension to the Notice of Alteration date from September 30, 2021 to November 30, 2021. This was approved by the Province.

In November 2021, following a meeting with the Province, the Department submitted a Notice of Alteration to the Province stating that, due to the C4 Contractor’s performance preventing the completion of various critical pre-requisite works, seeding activities for the biological nutrient removal (BNR) process would not occur in 2021 and are anticipated to start in 2022.

In late December 2021, a power imbalance caused the protection controls to turn off for some pumps, which resulted in Integrated Fixed Film Activated Sludge (IFAS) media being released from the BNR system. The Engineer of Record investigated and recommended methods of IFAS media clean-up and recovery to the C4 Contractor. The C4 Contractor has cleaned up and recovered the media which was released to plant areas that were outside the BNR system.

As reported previously, a power imbalance in December 2021 resulted in a release of the Integrated Fixed Film Activated Sludge (IFAS) media from the BNR tanks. This release delayed the commissioning of the Biological Nutrient Removal (BNR) system and led to an adjusted seeding start of June 2022. A revised Notice of Alteration was submitted to the Province on February 25, 2022, notifying of the delay and requesting a revised compliance date.

On April 14, 2022 the Province advised that the Notice of Alternation request, submitted by the City on February 25, 2022 for a revised compliance date was denied. However, the Province acknowledged the delays and accepted the submission as a compliance plan and required the City to continue the monthly and quarterly status reports.

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 adopted 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. On May 27, 2021 Council approved a budget increase of \$16.5 million, thereby approving an amended budget of \$352.1 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. A project risk register is being kept throughout the project and is updated by formal analysis.

Appendix D – Funding

Appendix D

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	\$ 27.14	\$ 6.08	\$ 4.20	\$ -	\$ 31.34	\$ 6.08	\$ 109.58
GIF Wet Weather Flow	60.0	9.90	9.90	1.10	1.10	11.00	11.00	38.00
Other	168.6							168.60
Estimated Program Costs	\$ 375.6	\$ 37.04	\$ 15.98	\$ 5.30	\$ 1.10	\$ 42.34	\$ 17.08	\$ 316.18

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 ⁴	Canada	Manitoba	
WEWPCC Biological Nutrient Removal ¹	\$ 33.23	\$ 5.07	\$ 8.19			\$ 5.07	\$ 8.19	\$ 19.97
NEWPCC Centrate and UV Disinfection ¹	52.08	5.59	14.54			5.59	14.54	31.95
SEWPCC Nutrient Removal/Expansion	375.60	37.04	15.98	5.30	1.10	42.34	17.08	316.18
NEWPCC Power Supply and Headworks ²	517.85	49.34	41.11	\$ 66.77	\$ 55.64	116.11	96.75	304.99
NEWPCC Biosolids ³	1,035.00			200.87	167.38	200.87	167.38	666.75
NEWPCC Nutrient Removal ⁴	828.06					-	-	-
Estimated Program Costs	\$ 2,841.82	\$ 97.04	\$ 79.82	\$ 272.94	\$ 224.12	\$ 369.98	\$ 303.94	\$ 1,339.84

¹ WEWPCC Biological Nutrient Removal and NEWPCC Centrate and UV Disinfection have been completed.

² On July 23, 2021 the Federal and Provincial governments announced \$212.86 million in Investment in Canada Infrastructure Program (ICIP) funding for the NEWPCC Upgrade Power Supply and Headworks project. \$116.11 million in Federal and \$96.75 million in Provincial funding.

³ On August 16, 2022 the Federal and Provincial governments announced an additional \$368.25 million in ICIP funding for the NEWPCC Upgrade Biosolids project. \$200.87 million in Federal and \$167.38 million in Provincial funding. Committing a total of \$581.11 million in funding to the NEWPCC Upgrade.

⁴ NEWPCC Upgrade Nutrient Removal project has not been approved.