Minutes – Council – February 22, 2024

Minute No. 164
Report – Standing Policy Committee on Water, Waste and Environment – February 5, 2024

Item No. 1 Request for Budget Revision for the NEWPCC Upgrade – Power Supply and Headworks Facilities and Approval of Contract Over-Expenditure No. 9 for Request for Proposal No. 659-2018B

COUNCIL DECISION:

Council concurred in the recommendation of the Standing Policy Committee on Water, Waste and Environment and adopted the following:

1. That a budget increase of $44.475 million be approved for the NEWPCC Upgrade: Power Supply and Headworks Facilities Capital Budget to be funded through $25 million in debt as borrowing authority is available under existing by-laws, and $19.475 million in retained earnings.

2. That a transfer of $14.475 million in retained earnings identified in Recommendation 1 from the Waterworks System Fund to the Sewage Disposal System Fund be approved to fund part of this budget increase.

3. That Contract Over-Expenditure No. 9 in the amount of up to $37.85 million, MRST included and GST extra as applicable, be approved for Request for Proposal No. 659-2018B, Design Build of NEWPCC Upgrade: Headworks Facilities project.

4. That the Proper Officers of the City be authorized to do all things necessary to implement the intent of the foregoing.

Report – Standing Policy Committee on Water, Waste and Environment – February 5, 2024

DECISION MAKING HISTORY:

Moved by Councillor Mayes,

That the recommendation of the Standing Policy Committee on Water, Waste and Environment be adopted by consent.

Carried

EXECUTIVE POLICY COMMITTEE RECOMMENDATION:

On February 13, 2024, the Executive Policy Committee concurred in the recommendation of the Standing Policy Committee on Water, Waste and Environment and submitted the matter to Council.

STANDING COMMITTEE RECOMMENDATION:

On February 5, 2024, the Standing Policy Committee on Water, Waste and Environment concurred in the recommendation of the Winnipeg Public Service and submitted the matter to the Executive Policy Committee and Council.

David Grant submitted a communication with respect to the matter.

ADMINISTRATIVE REPORT

Title: Request for Budget Revision for The NEWPCC Upgrade: Power Supply And Headworks Facilities And Approval Of Contract Over-Expenditure No. 9 For Request for Proposal No. 659-2018b

Critical Path: Standing Policy Committee on Water, Waste and Environment – Executive Policy Committee – Council

AUTHORIZATION

Author	Department Head	CFO	CAO
C.D. Wiebe, P.Eng., CAMP, Manager of Engineering Services	Tim W. Shanks, M. Eng., P. Eng., Director of Water and Waste Department	C. Kloepfer	M. Jack

EXECUTIVE SUMMARY

During construction of the Headworks Facilities project, an exposed part of the Northwest Interceptor (NWI) failed. The NWI is a large pipe that brings sewage to the NEWPCC, and it flooded a construction area. Significant clean-up and repairs were required that caused an overall project delay. This report requests approval of a contract over-expenditure related to the pipe failure and approval for the associated project budget increase.

The extra work included clean-up of the flooded area, repair of the NWI, recovery of the tunnel boring machine (TBM) delay costs, and pre-emptive protection of the Main Street Interceptor (MSI). The contract over-expenditure is in the amount of up to $37.85 million, bringing the total revised value of contract 659-2018B to $328.135 million (MRST included and GST extra as applicable). The external debt charges for this extra work will be an additional $4.225 million (to be capitalized during the construction period).

Subject to approval of the amended budget and contract over-expenditure, a further $2.4 million will be returned to the project contingency allowance, which has been fully expended. Any insurance payback related to the NWI failure as claims are finalized will also be added to the contingency allowance.

A total budget increase of $44.475 million, or 9.4 percent of the amended Council approved budget, is requested for over-expenditure, debt charges, and contingency funding. The total revised project budget will be $517.855 million. The table below summarizes the requested amount.

Item Description	Total Cost
External Debt Charges (to be capitalized during construction)	$ 4.225 million
Contract 659-2018B Over-Expenditure No. 9	$ 37.850 million
Project Contingency Allowance Increase	$ 2.400 million
Budget Amendment Total Request	**$44.475 million**

The budget increase will be funded through $25 million in debt, as borrowing authority is available under existing by-laws, and $19.475 million in retained earnings comprised of $5 million from the Sewage Disposal System Fund and $14.475 million via a transfer from the Waterworks System Fund to the Sewage Disposal System Fund.

RECOMMENDATIONS

1. That a budget increase of $44.475 million be approved for the NEWPCC Upgrade: Power Supply and Headworks Facilities Capital Budget to be funded through $25 million in debt as borrowing authority is available under existing by-laws, and $19.475 million in retained earnings.

2. That a transfer of $14.475 million in retained earnings identified in Recommendation 1 from the Waterworks System Fund to the Sewage Disposal System Fund be approved to fund part of this budget increase.

3. That Contract Over-Expenditure No. 9 in the amount of up to $37.85 million, MRST included and GST extra as applicable, be approved for Request for Proposal No. 659-2018B, Design Build of NEWPCC Upgrade: Headworks Facilities project.

4. That the Proper Officers of the City be authorized to do all things necessary to implement the intent of the foregoing.

REASON FOR THE REPORT

Council approval is required to modify the Capital Budget of a project.

The Standing Policy Committee has the authority to approve contract over-expenditures. However, as the monies for this over-expenditure are not currently available within the applicable capital budget and are contingent upon Council approving the budget increase, Council approval is requested for Over-Expenditure No. 9.

IMPLICATIONS OF THE RECOMMENDATIONS

<u>NEWPCC Upgrade: Power Supply and Headworks Facilities Capital Budget Amendment</u>

The recommendations in this report will amend and increase the capital budget for the NEWPCC Upgrade: Power Supply and Headworks Facilities by $44.475 million.

The proposed funding for the budget increase of $44.475 million (including $4.225 million of interest to be capitalized during the construction period) will be funded through $25 million in debt as borrowing authority is available under existing by-laws, and $19.475 million in retained earnings with $5 million from the Sewage Disposal System Fund and $14.475 million via a transfer from the Waterworks System Fund to the Sewage Disposal System Fund.

The $5 million retained earnings from the Sewage Disposal System Fund were reallocated from the Lift Stations Upgrading capital program budget reducing the program 2024-2029 forecasted total from $44 million to $39 million. Procurement of long lead-time parts and supplies, along with extended design timelines, has pushed construction schedules and completion dates out. As a result, the decrease in the 2024 capital budget ask can be accommodated within this program.

As per the City of Winnipeg Charter section: 210(5) The city may, as provided in this Act, establish prices, rates, fees, deposits or other charges for any commodity or service that the City supplies and, for that purpose, the City need not obtain any approval from The Public Utilities Board, the intention being that the City may establish such amounts and use the revenues therefrom for the general purposes of the City and not solely for the purposes of offsetting any costs related to supplying the commodity or service. Section 288(3) of the Charter states that Council may, by by-law, establish a process for reallocating funds provided for in an operating budget or capital budget of the city for a purpose other than set out in the budget.

Following these sections of the charter, the Department recommends the transfer of $14.475 million from the Waterworks System Fund to the Sewage Disposal System Fund as a funding source for the required NEWPCC Upgrade: Power Supply and Headworks Facilities budget increase.

The recommended transfer of $14.475 million from the Waterworks System Fund to the Sewage Disposal System Fund will not impact the financial stability of the water utility. The Waterworks System Fund has accumulated a greater retained earning balance primarily due to delays in capital project spending and surpluses from operations. The Sewage Disposal System Fund is currently under significant pressure due to major capital projects consisting of upgrades at the sewage treatment plants, biosolids management, and combined sewer overflow mitigation including basement flood relief.

Funds in the amount of $473.380 million are included in the NEWPCC Upgrade: Power Supply and Headworks Facilities Capital Budget, Account Distribution No. 444 181000 200752 2031001304, 2031001310, and 203110013B.

Failure to increase the overall budget for the NEWPCC Upgrade: Power Supply and Headworks Facilities project will result in a failure to meet provincial regulatory requirements.

Contract Over-Expenditure

Contingent upon the $44.475 million budget increase (including $4.225 million of interest to be capitalized during the construction period), following approval of this over-expenditure and budget increase, $64.664 million (refer to Table 6 below) will remain available from total funds in the amount of $517.855 million in the Capital Budget for NEWPCC Upgrade: Power Supply and Headworks Facilities project, Account Distribution No. 444 181000 200752 203110013B.

The recommendations included in this report comply with the requirements of the various trade agreements and the City's Materials Management Policy.

Economic Impact Analysis (EIA)

The estimated direct and indirect economic impact of this expenditure is:

Economic Impact	Manitoba	Rest of Canada
Gross Domestic Product (GDP)	$24.4 million	$7.2 million
Person Years of Employment	184	52
Federal Government Tax Revenue	$2.8 million	$0.8 million
Provincial Government Tax Revenue	$2.7 million	N/A

Source: Statistics Canada. Table 36-10-0595-01 Input-output multipliers, detail level.

The evaluated expenditure for this project is $39.0 million. The expenditure and estimated impacts are in 2023 dollars. Contingency and internal staff costs are excluded from the analysis. Some additional elements of the expenditure may be excluded to align with macroeconomic accounting principles.

The 2019 GDP at basic prices simple multiplier for other engineering construction [BS23C500] was used to assess this investment. Federal and provincial government tax revenue estimates include GST, MRST, personal income taxes, corporate income taxes and other sources of taxes and fees. These are estimated using the multipliers noted above in conjunction with effective tax rates calculated from the economic accounts produced by Statistics Canada.

HISTORY/DISCUSSION

NEWPCC has been in operation since 1937 and treats about 70 percent of sewage for the City of Winnipeg (City). It is the largest and most complex of the three City sewage treatment plants.

On February 28, 2019, Council approved that $408.38 million of the previously-adopted 2016 Capital Budget be used to deliver the NEWPCC Upgrade: Power Supply and Headworks Facilities projects. The budget was based on an AACE International Class 3 estimate with an expected accuracy range of -20% to +30% ($326.7 million to $530.9 million). The NEWPCC Upgrade: Power Supply and Headworks Facilities budget includes funds for:

- Power Supply upgrades (complete);
- Headworks Facilities project;
- Primary Clarifier upgrades;
- Digital Control Systems (DCS) migration;
- Ultraviolet Light (UV) upgrades; and
- Other minor works and assignments.

On May 27, 2021, Council approved a budget increase of $65 million since the Preferred Proponent’s proposal exceeded the initial budget allocated for the Headworks Facilities project.

This amended the total capital budget for all the Power Supply and Headworks Facilities projects to $473.38 million.

NEWPCC Upgrade: Power Supply and Headworks Facilities Capital Budget Amendment

Part of the Headworks Facilities project included construction of two deep chambers with two interconnecting tunnels. This work required exposing and working around the existing Northwest Interceptor (NWI); a large diameter pipe built in 1970 that transports sewage to the NEWPCC.

On June 7, 2023, following a heavy rain event, an exposed portion of the NWI failed catastrophically in one of the new chambers. At this time, one of the tunnels was complete (connecting both chambers) and the second was in progress. The tunnel boring machine (TBM), a specialized piece of equipment that excavates tunnels, was contained within the second tunnel. High flows in the NWI flooded both chambers, the completed tunnel, and the tunnel in progress. It also submerged the TBM and all related equipment. An insurance claim has been initiated for this event and a portion of the related costs may be reimbursed.

The NWI failure has resulted in Contract changes for:

- NWI clean-up;
- NWI repair;
- TBM recovery;
- project delay; and
- protection of the Main Street Interceptor (MSI).

The NWI clean-up includes removal of sewage and settled solids from the chambers, tunnels, and TBM that were flooded in the initial NWI failure, and in the subsequent floods until the NWI was repaired. The NWI repair includes design, procurement of materials, and construction efforts to repair the failed NWI.

The TBM recovery includes repair of the TBM and its components to allow the resumption of tunnelling operations. The project delay includes costs to extend the project schedule. The MSI is an 88-year-old pipe that was to be exposed similar to the NWI. Additional inspection, design, and construction effort is required to minimize the risk of the MSI failing in a similar fashion to the NWI.

The total estimated cost related to the NWI failure, including the additional work for the MSI protection, is summarized in Table 1.

Table 1: NWI Failure Estimated Costs

Item Description	Total Cost
NWI cleanup, NWI repair, and TBM recovery (See Table 3 for details)	$14.300 million
NWI failure schedule delay	$ 29.950 million
MSI protection	$4.000 million
Assumed Insurance Coverage (value is subject to change)	($8.000 million)
External Debt Charges	$4.225 million
Total	**$44.475 million**

The capital budget for the Power Supply and Headworks Facilities projects includes a $24.466 million contingency allowance for other projects, including the Primary Clarifier upgrades, DCS migration, and UV upgrades. These contingency funds cannot be reallocated to the Headworks Facilities to offset the NWI failure costs as it would put funding for the other projects at risk.

The Department is requesting an increase of $44.475 million to cover the costs of the NWI failure and MSI protection. A revised capital project detail sheet is included in Appendix A. The budget amendment will increase the NEWPCC Upgrade: Power Supply and Headworks Facilities Capital Budget to $517.855 million, which is still within the expected AACE International Class 3 estimate range.

Borrowing Authority

Borrowing authority is available under existing City of Winnipeg borrowing by-laws pertaining to the Water and Waste Department.

Debt Strategy

On October 28, 2015, Council adopted a Debt Strategy for Tax Supported, Utilities and total City borrowing. Subject to approval of the recommendations of this report, additional external borrowing of $25 million is required. This borrowing is anticipated to start in 2024.

The $2 million borrowing capacity will remain if Council approves the recommendations in this report (based on 2024 borrowing estimates).

The impact of this debt financing falls within the debt limits established in the Council Policy as outlined in the table below:

Table 2: Debt Limits

Tax Supported net debt as a percentage of revenue not to exceed	80%
Forecasted peak rate including proposed debt from this report	56.20%
Utilities net debt as a percentage of revenue not to exceed	220%
Forecasted peak rate including proposed debt from this report	123.83%
Total City net debt as a percentage of revenue not to exceed	90%
Forecasted peak rate including proposed debt from this report	89.95%
Tax Supported debt servicing as a percent of revenue not to exceed	10%
Forecasted peak rate including proposed debt from this report	5.08%
Utilities debt servicing as a percent of revenue not to exceed	20%
Forecasted peak rate including proposed debt from this report	10.36%
Total City debt servicing as a percent of revenue not to exceed	11%
Forecasted peak rate including proposed debt from this report	7.92%
Tax Supported Debt per Capita not to exceed	1,500
Forecasted peak rate including proposed debt from this report	1,135
Utilities Debt per Capita not to exceed	1,500
Forecasted peak rate including proposed debt from this report	1,395
Total City Debt per Capita not to exceed	2,800
Forecasted peak rate including proposed debt from this report	2,482

Contract Over-Expenditure

On June 11, 2021, RFP No. 659-2018B for Design Build of the NEWPCC Upgrade: Headworks Facilities project was awarded to Red River Solutions Inc., an Aecon Water Infrastructure Inc. and Oscar Renda Contracting of Canada Inc. joint venture, in the amount of $271.611 million, MRST included and GST extra as applicable.

Various non-monetary changes have been approved by the Director of the Water and Waste Department. Those changes, along with all monetary changes approved by the Chief Administrative Officer (CAO) and Standing Policy Committee on Water, Waste and the Environment in Over-Expenditures No. 1 through 8, are summarized in Appendix B: Change History. Total contract over-expenditures to date are $18.674 million.

The contract changes that are covered by this over-expenditure report are summarized in Table 3 and detailed in the sections following.

Table 3: Summary of Contract Changes

Contract Changes	Description	Approved to Date	Additional Approval Required
NWI Clean-Up, NWI Repair, and TBM Recovery	Effort for NWI clean-up, NWI repair, and TBM recovery	$6.4 million	Up to $7.90 million
NWI Failure Schedule Delay	Delay costs due to NWI failure	-	Up to $29.95 million
TOTAL			**Up to $37.85 million**

NWI Clean-Up, NWI Repair, and TBM Recovery

The scope of work for the NWI clean-up includes the cleaning of the chambers, the tunnels, and the TBM and associated equipment that were flooded by the NWI failure. This required pumping out the sewage, removal of settled solids, efforts to verify the integrity of the new chambers and tunnels, reinstatement of temporary works (e.g. stair towers), and sealing of the new tunnels to isolate the chambers from each other. Subsequent storms that occurred prior to the repair of the NWI, caused further flooding of the chambers and tunnels which required additional clean-up.

The scope of work of the NWI repair includes design, procurement of required materials, and construction efforts to repair the failed NWI. The scope of work of the TBM recovery includes repair of the TBM and its components to allow the TBM to resume tunneling operations. Red River Solutions Inc. is required to individually track and provide a number of documents to substantiate all costs incurred.

On October 26, 2023, the CAO approved Over-Expenditure report No. 7 for contract changes related to the NWI failure in the amount of $6.4 million. This over-expenditure is for additional effort for the NWI clean-up, NWI repair, and TBM recovery that could further increase the Contract Price by up to $7.9 million.

NWI Delay

The tunnel and chamber construction were on the project schedule's critical path. Delays to activities on the project's critical path extend the completion date of the project. The NWI failure significantly impacted tunnel and chamber construction and, as a result, the completion date of the project will likely be extended incurring delay costs. Final cost and delay impacts are still under evaluation but may increase the Contract Price by up to $29.95 million.

Project Contingency

Subject to approval of the amended budget and contract over-expenditure, $2.4 million will be returned to the project contingency allowance which has been fully depleted. The project contingency allowance will be further supplemented by any insurance payback related to the NWI failure as claims are finalized.

Summary of Report Financials

Table 4 summarizes the composition of the NEWPCC Upgrade: Power Supply and Headworks Facilities Capital Budget Amendment request.

Table 4: Report Financials

Item Description	Total Cost
External Debt Charges	$ 4.225 million
Contract Over-Expenditure	$ 37.850 million
Contingency	$ 2.400 million
Budget Amendment Total Request	**$44.475 million**

Although there are sufficient uncommitted funds currently in the budget to cover this over-expenditure, the funds are allocated to the award and completion of the Primary Clarifier upgrades, DCS migration, UV upgrades, and other minor works and assignments. Increasing the capital budget by $44.475 million will ensure there are sufficient funds to complete the Headworks Facilities project and other projects included in the overall upgrade.

The increase in fees of up to $37.85 million exceeds the original contract of $271.611 million by 13.94 percent. Combined with prior approved over-expenditures, the revised total Contract Price of $328.135 million exceeds the original contract by 20.8 percent. All fees include MRST and GST extra as applicable.

Engineering Services of the Water and Waste Department are satisfied that the $37.85 million increase is reasonable and recommend approval of this over-expenditure.

Table 5: Summary of Estimated Final Contract amount

The financial status of Design Build of the NEWPCC Upgrade: Headworks Facilities project is as follows:

Total Contract Award Amount (MRST included)		$ 271,611,000.00
Previous Over-Expenditures (MRST included)	$ 18,674,000.00	
Amount of this Recommendation	37,850,000.00	
Est. Engineering Cost	-	
Est. Manitoba Retail Sales Tax	-	
Est. Self Assessed MRST	-	
Est. Corporate Interest Costs	-	
Est. Corporate Administration Costs	-	
Total Estimated Value of Extra Work	$ 56,524,000.00	$ 56,524,000.00
Estimated Final Contract Amount		$ 328,135,000.00

Table 6: Summary of Estimated Remaining Available Funds

Upon approval of the $44.475 million capital request (including $4.225 million of interest to be capitalized during the construction period), the financial status of NEWPCC Upgrade: Power Supply and Headworks Facilities project will be as follows:

Authorized Capital			$ 517,855,000.00
Amount of Previous Awards or Expenditures	$ 411,339,321.91		
Amount of this OE recommendation*	37,850,000.00		
Est. Engineering Cost	-		
Est. Manitoba Retail Sales Tax	-		
Est. Self Assessed MRST	-		
Est. debt interest costs*	4,225,000.00		
Corporate Interest Charges	-		
Corporate Administrative Charges	-		
Total Estimated Cost	$ 453,414,321.91		$ 453,414,321.91
Estimated Remaining Available Funds			$ 64,440,678.09

*The budget increase ask of $44.475 million is made up of $37.85 million contract over-expenditure, $4.225 million of debt interest to be capitalized during the construction period, and $2.4 million to rebuild the currently depleted project contingency.

FINANCIAL IMPACT

Financial Impact Statement

Date: December 19, 2023

Project Name:

First Year of Program **2024**

REQUEST FOR BUDGET REVISION FOR THE NEWPCC UPGRADE: POWER SUPPLY AND HEADWORKS FACILITIES CAPITAL PROJECT AND APPROVAL OF CONTRACT OVER-EXPENDITURE NO. 9 FOR DESIGN BUILD OF NEWPCC UPGRADE: HEADWORKS FACILITIES PROJECT

REQUEST FOR PROPOSAL NO. 659-2018B

	2024	2025	2026	2027	2028
Capital					
Capital Expenditures Required	$ 44,475,000	$ -	$ -	$ -	$ -
Less: Existing Budgeted Costs	44,475,000	-	-	-	-
Additional Capital Budget Required	$ -	$ -	$ -	$ -	$ -
Funding Sources:					
Debt - Internal	$ -	$ -	$ -	$ -	$ -
Debt - External	-	-	-	-	-
Grants (Enter Description Here)	-	-	-	-	-
Reserves, Equity, Surplus	-	-	-	-	-
Other - Enter Description Here	-	-	-	-	-
Total Funding	$ -	$ -	$ -	$ -	$ -
Total Additional Capital Budget Required	$ -				
Total Additional Debt Required	$ -				
Current Expenditures/Revenues					
Direct Costs	$ -	$ -	$ -	$ -	$ -
Less: Incremental Revenue/Recovery	-	-	-	-	-
Net Cost/(Benefit)	$ -	$ -	$ -	$ -	$ -
Less: Existing Budget Amounts	-	-	-	-	-
Net Budget Adjustment Required	$ -	$ -	$ -	$ -	$ -

Additional Comments: Capital Budgets for the NEWPCC Upgrade: Power Supply and Headworks Facilities will be added to Account Distribution No. 444 181000 200752 203110028B. A budget amendment increase of $44,475,000.00 is recommended to be approved for this project. The total cost of the capital budget increase is to be funded from debt as borrowing authority is available under existing by-laws and retained earnings.

Lucy Szkwarek, CPA, CGA

Lucy Szkwarek, CPA, CGA
Manager of Finance and Administration

CONSULTATION

This Report has been prepared in consultation with:

- Corporate Finance Department, Treasury Division

OURWINNIPEG POLICY ALIGNMENT

This report is in accordance with the OurWinnipeg 2045:

Goal: Environmental Resilience

Objective 5: Protect and value ecosystems as essential components life.

Policy 2.17 Regional Water Resource Management.

WINNIPEG CLIMATE ACTION PLAN ALIGNMENT

Consideration was given as to whether this report connects to the Winnipeg Climate Action Plan (CAP) and its Goals and Objectives, and it was determined that the CAP is not applicable to this specific report.

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
Division: Engineering Services
Prepared by: A. Weiss, P.Eng.
Date: January 11, 2024
File No.: S-1204-4

ATTACHMENTS:
Appendix A: 2024 Capital Budget Detail Sheet for NEWPCC Upgrade: Power Supply and Headworks Facilities
Appendix B: Change History

Appendix A: 2024 Capital Budget Detail Sheet for NEWPCC Upgrade: Power Supply and Headworks Facilities

WATER & WASTE - SEWAGE DISPOSAL SYSTEM FUND

Project Name: NEWPCC Upgrade: Power Supply and Headworks Facilities

Standing Policy Committee: Water, Waste and Environment
Dept ID: 207502
Department: Water and Waste
Project: 2031100138

Lifecycle Activity: Regulatory Upgrade
Service: Wastewater
OurWinnipeg: Environmental Resilience

AUTHORIZATION	Previous Budgets	2024 Estimate	FORECAST 2025	2026	2027	2028	2029	Five-Year Forecast	Six-Year Total
Project Costs ($000's)	473,380	44,475	-	-	-	-	-	-	44,475
Financed by:									
Retained Earnings		19,475						-	19,475
External Debt		25,000						-	25,000

CASH FLOW	2024	2025	2026	2027	2028	2029	Beyond 2029	Total
Project Costs ($000's)	-	19,475	25,000	-	-	-	-	44,475
Financed by:								
Retained Earnings		19,475						19,475
External Debt			25,000					25,000

NET OPERATING IMPACT ($000's)	2024	2025	2026	2027	2028	2029
Operating costs						
Debt and finance charges						
Transfer to General Capital Fund						
Total Direct Costs	-	-	-	-	-	-
Less: Incremental Revenue/Recovery						
Net Cost/(Benefit)	-	-	-	-	-	-
Incremental Full Time Equivalent Positions	-	-	-	-	-	-

Class Estimate: 3

@	2024	2025	2026	2027	2028	2029
Class Estimate	3					
Authorization ($000's)						
Preliminary Design						
Detailed Design & Construction	44,475					

Strategic Priority Action Plan alignment:

None

An Environment Act Licence has been issued for the North End Sewage Treatment Plant (NEWPCC) requiring treatment for nitrogen (N) and phosphorus (P). The implementation of a nutrient removal process will require a major plant expansion and, given the age of the existing structure and complexity of phasing the construction, several new facilities will be constructed as part of this project. The NEWPCC Upgrade will be implemented in three projects (each with their own budget): 1) Power Supply and Headworks Facilities, 2) Biosolids Facilities, and 3) Nutrient Removal Facilities. The Power Supply and Headworks Facilities includes upgrades to the electrical supply and replacement of equipment at end of life.

The NEWPCC Upgrade: Power Supply and Headworks Facilities budget was based on a Class 3 estimate. The 2024 budget amendment is required to address additional project costs due to the failure of the Northwest Interceptor.

The expected life of the structures is 50 years, the expected life of the electrical and mechanical components is 25 years, and the expected life of computer related systems is 10 years.

APPENDIX B: Change History
Previously Approved Changes

Scope Change No.	Description	Amount
CHO-0001 to 0012, 0014, 0017 and 0022 to 0025	Various items (approved by Director of WWD from July 27, 2021 to May 25, 2023)	$0.00
CHO-0013	Highland Avenue Realignment Asphalting	Pending
REL-0001_PYT01	Soil Contamination Relief Event – Payment 1 (approved by CAO July 21, 2022 – OE1)	$839,097.10
CHO-0016	Updated City Standards (approved by CAO July 21, 2022 – OE1)	$116,190.00
REL-0001_PYT02	Soil Contamination Relief Event – Payment 2 (approved by CAO September 13, 2022 – OE2)	$1,112,755.10
CHO-0015	RFS Based Changes (RFSs 0007, 0008, 0010) (approved by CAO December 30, 2022 – OE3)	-$9,500.00
CHO-0018	Heritage Resource Requirements (approved by CAO December 30, 2022 – OE3)	$21,828.00
CHO-0019	RFS & RFI Based Changes (RFS 0012, 0014, 0015, 0016, 0017 & RFI 0130) (approved by CAO December 30, 2022 – OE3)	-$10,890.00
CHO-0021	RFS 0019 – FAT for Generators (approved by CAO December 30, 2022 – OE3)	-$11,620.00
REL-0001_PYT03	Soil Contamination Relief Event – Payment 3 (approved by CAO December 30, 2022 – OE3)	$591,360.18
PAJ-0001	Payment Adjustment #1 – Late Submittals (approved by CAO December 30, 2022 – OE3)	-$30,000.00
PAJ-0002	Payment Adjustment #2 – Late Submittals (approved by CAO December 30, 2022 – OE3)	-$22,000.00
CHO-0020	Location Deviation (approved by CAO January 20, 2023 – OE4)	$719,601.00
PAJ-0003	Payment Adjustment #3 – Late Submittals (approved by CAO January 20, 2023 – OE4)	-$14,000.00
LD 0001	Liquidated Damages #1 – Key Individual Change (approved by CAO January 20, 2023 – OE4)	-$75,000.00
REL-0001_PYT04	Soil Contamination Relief Event – Payment 4 (approved by CAO February 21, 2023 – OE5)	$325,393.42
REL-0001_PYT05	Soil Contamination Relief Event – Payment 5 (approved by CAO August 11, 2023 – OE6)	$57,265.17
PAJ-0004	Payment Adjustment #4 – Late Submittals (approved by CAO August 11, 2023 – OE6)	-$12,000.00
CHO-0028	Northwest Interceptor (NWI) Cleanup (approved by CAO October 26, 2023 – OE7)	$1,500,000.00
CHO-0029	NWI Repair (approved by CAO October 26, 2023 – OE7)	$1,500,000.00
CHO-0030	NWI Tunnel Boring Machine (TBM) Recovery (approved by CAO October 26, 2023 – OE7)	$3,400,000.00
REL-001_PYT06	Soil Contamination Relief Event – Payment 6 (approved by SPC WW November 24, 2023 – OE8)	$35,629.73
CHO-0026	Heritage Resource Monitoring (approved by SPC WW November 24, 2023 – OE8)	Up to $100,000.00
REL-006_EX GRATIA PYT	Differing Ground Conditions Relief Event Ex Gratia Payment (approved by SPC WW November 24, 2023 – OE8)	$3,843,371.69

CHO-0036, 0037, 0038	Main Street Interceptor Protection (approved by SPC WW November 24, 2023 – OE8)	Up to $4,000,000.00
Allowance	Allowance for upcoming changes (approved by SPC WW November 24, 2023 – OE8)	$696,518.61
TOTAL		Up to $18,674,000.00