

MEMORANDUM

BRC-C 1-2020

Subject: Councillor Information Requests from October 15, 2020 Budget Review Committee of the Whole

Date: November 26, 2020

To: Budget Review Committee of the Whole

From: Todd Harrison, Commissioner/Treasurer Corporate Services

This memo is in response to Councillor Information Requests at Budget Review Committee of the Whole on October 15 as follows:

1. *Committee members requested additional information respecting the strategy and rationale behind the budgeting of the South Niagara Falls Wastewater Treatment Plant project.*
 - a) *Provide information regarding the contingency budget for the South Niagara Falls Wastewater Treatment Plant Projects.*
 - b) *Provide additional information regarding the financing strategy for the South Niagara Falls Wastewater Treatment Plant Projects.*
 - c) *Provide information respecting the inclusion of the South Niagara Falls Wastewater Treatment Plant in the Development Charges background study and by-law. (Councillor Redekop).*
2. *Provide information respecting the capital projects evaluated under the CAMRA model which were not included in the 2021 capital budget. (Councillor Heit).*

1. a) Provide information regarding the contingency budget for the South Niagara Falls Wastewater Treatment Plant Projects (SNF WWTP).

Contingencies and estimates are budgeted within the project through the following:

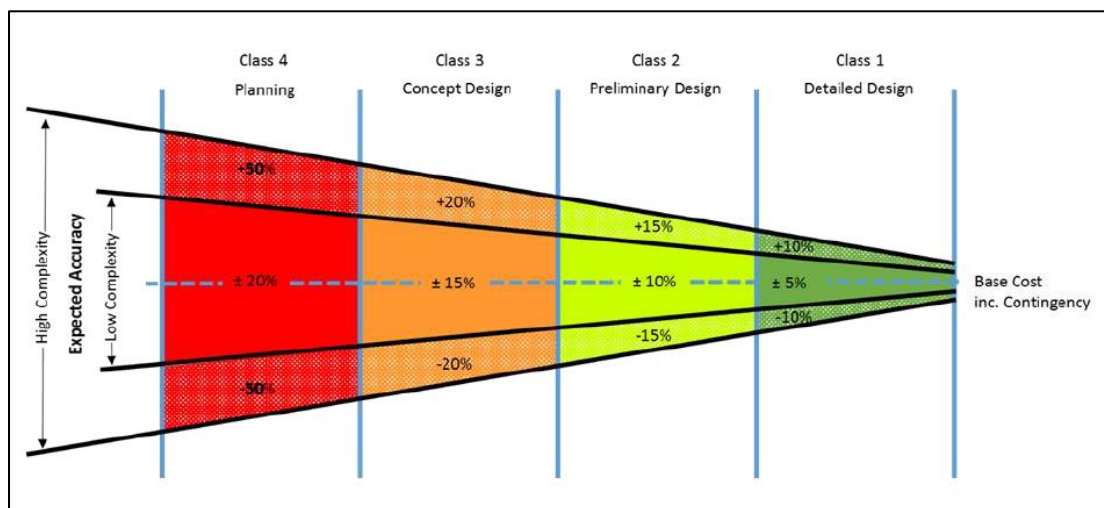
- An overall 10% project contingency.
- Contingency in pricing estimates on price sensitive assets.
- A capital inflation rate of 4% for the time value of money.

Cost estimating accuracy will improve as the project progresses. For the purposes for budgeting, class 3 concept design cost estimates were utilized. Per Table 1 and Figure 1, the accuracy range of these estimates are between 15-20%.

Table 1 Types of Estimate Class and Accuracy Ranges

Estimate Class	Estimate Class Description	End Usage / Major Deliverables	Accuracy Range (+/-)	
			Low Complexity	High Complexity
Class 4	Planning Cost Estimate	Concept Screening; justification for project planning funding. Minimum information requirements.	20	50
Class 3	Concept Design Cost Estimate	Basis for budgeting and approvals.	15	20
Class 2	Preliminary Design Cost Estimate	Used for project cost control during design; initial detailed estimate.	10	15
Class 1	Detailed Design Cost Estimate	Final cost review in preparation for construction; tender ready.	5	10

Figure 1 Variability of Estimates per Class



1. b) Provide additional information regarding the financing strategy for the SNF WWTP Projects.

The SNF WWTP capital requirement is as follows:

- 2021 capital budget includes \$320 million (\$5 million approved in prior years, total cost estimate is \$325 million)
- \$34 million required to be initiated in 2021 for the purchase of land, design, EAs with \$23 million in DC debentures and \$11 million in debentures financed from the wastewater rates.

- Remaining \$286 million to be initiated at a later date with funding of:
 - \$53 million debentures financed from the wastewater rates as this is supporting upgrades of existing infrastructure (i.e. benefit to existing)
 - \$125 million debentures financed from development charges as this is to support growth
 - \$108 million in unconfirmed grants
 - Project construction will not begin until grant funding is confirmed
 - Approval of the debentures at this time ensures Region's debt capacity is preserved for this project however debt will not be acquired until after costs are incurred.
- Operating budget impacts of \$320 million must be approved in year of capital project approval as per policy and can be accommodated within 2% water/wastewater rates. Approval of the wastewater operating budget at this time ensures capacity to support debt servicing costs and plant operating costs of:
 - \$3.8 million for debt servicing
 - \$5.2 million for plant operations
 - Until these wastewater operating funds are required for the above purposes, funding will be transferred to wastewater capital budget to fund replacement of existing infrastructure to be approved within each year's capital budget.
- Timing of Council budget approvals is different than cash flow requirements managed by staff. The differences are provided in appendix 1.

With respect to options to obtain the appropriate approvals to execute the above, there are essentially two options:

Recommended Option 1 – Approve the project in 2021 to construct the plant, and finance/cash flow the construction costs over the construction period and life of the asset.

Alternative Option 2 - Delay approval until Region has adequate funding accumulated to approve and allocate funding to construction of plant

Option 1. Approve the project in 2021 to construct the plant, and finance/cash flow the construction costs over the construction period and life of the asset.

- **Council decision points:**
 - 2021– Capital Budget - approve the \$320 million project. Project expenditures can begin on the design, environmental assessment and land acquisition.

- As the Region has adequate working capital the debt is not acquired at this point. Upon project substantial completion (approx. 2027) debt is issued with a 30 year debt term requiring \$3.8 million each year to pay the principal and interest on that debt.
 - The \$21 million base operating budget transfer to reserve is still available to support other infrastructure renewal in the Region's capital budget.
- 2021– Wastewater Operating Budget – understand and approve the impact and affordability of the operating budget dollars required to support the capital decision. Operating budget includes \$3.8 million required each year for 30 years to pay down the debt and the \$5.2 million that will be required to operate the plant. These amounts are 'placeholders' for Council understanding of financial impact and tradeoffs of the decision to construct the plant.
- Council budget decisions related to this project are complete other than to comply with the procurement policy and/or to deal with capital budget variances if required.

Option 2. Delay approval until Region has adequate funding accumulated to approve and allocate funding to construction of plant.

- **Background**
 - No funding would be spent on construction until all of budget and funding is approved.
 - Option to fund the \$64 million required from the Region's wastewater rates from amounts transferred to capital reserves (benefit to existing). With only \$21 million a year in the base wastewater budget dedicated to all capital reserves it would take three years to accumulate \$64 million to fund this requirement, and leave zero remaining for other infrastructure.
 - Other capital priorities would require debt financing which would require increases to the rate budget to support the annual principal and interest repayment requirements associated with financing those projects.
 - Option to use debenture financing sometime in the future for the project mirrors the funding approval principles of Option 1 but with a later start date and assuming debt capacity not assigned to other projects.
- **Council decision points:**
 - 2021 to 2023 - Wastewater operating budget – set aside \$21 million transfer to capital reserve for the plant construction or not. No funds will be spent on plant until total capital project is approved.

- 2024 – Capital budget - approve the \$320 million project. Project expenditures can begin on the design, environmental assessment and land acquisition.
- 2024 Wastewater operating budget – same as in Option 1 2021 Wastewater Operating Budget decisions.

Cashflow impacts - The cash flow impacts of these options are different and separate from the budget decisions above. Due to the long term nature of the construction of capital infrastructure the following additional opportunities are established in policy relative to Option 1:

- With respect to the Operating Budget - the Region continues to leverage the established \$9.0 million comprised of \$3.8 million (debt charges) and \$5.2 million (operations: staff, utilities, maintenance) to fund pay as you go capital.
 - 2021 to 2026 - \$9.0 million in the operating budget will not be set aside for debt servicing or operations but will be transferred to the wastewater capital reserve to be used/approved in the capital budget each year to invest in infrastructure.
 - 2027 - debentures will be issued and the \$3.8 million already established in the operating budget will be used to fund the principle and interest payments of that debt until it is paid off. Also, the plant will be in service and the \$5.2 million operating budget will be used for staff, maintenance and utility costs.
- With respect to the Capital Budget -
 - 2021 to 2023 - Staff spends \$34 million of the \$320 million approved capital cost on EA, planning, design, land etc.
 - 2024 to 2027 - Staff spends \$286 million of the \$320 million approved capital cost on construction.

1. c) Provide information respecting the inclusion of the South Niagara Falls Wastewater Treatment Plant in the Development Charges (DC) background study and by-law.

The 2017 DC Background study estimated the total cost of the projects to be \$185 million with a potential DC recoverable cost of \$83 million. The revised estimated gross cost of the projects included in the 2021 Capital Budget is \$320 million with a potential DC recoverable of \$148 million. The revised estimates and debt servicing costs will be reflected in future updates to the DC background study.

The primary reasons for the increase from the 2017 estimates are as follows:

- The trunk sewer estimated depth and length increased based on conceptual design information.
- Increased property acquisition cost estimates.
- Addition of treatment costs and provision for potential tertiary treatment
- Capital inflation rate of 4% per year dependent on timing of project cash flow/construction compared to 2% capital inflation rate used previously.
- An updated wastewater strategy that will provide improved level of service, enhanced ability to address wet weather flows, and greater flexibility for efficient servicing in the future.

For an in-depth comparison by project, please see [PW 39-2020 - Appendix 2 Project Budget Cost and Scope Comparison](#).

2. Provide information respecting the capital projects evaluated under the CAMRA model which were not included in the 2021 capital budget.

Attached to this memorandum is appendix 2, which is the listing of deferred capital projects in 2021. These projects were deferred as part of the corporate prioritization process.

Respectfully submitted and signed by

Todd Harrison, CPA, CMA
Commissioner/Treasurer Corporate Services

Appendix 1 SNF WWTP Option Analysis
Appendix 2 List of Deferred Capital Projects in 2021