





Type of Decision								
Meeting Date	July 9, 2019				Report Date	July 9, 2019		
Decision Requested	X	Yes		No	Priority	X	High	Low
	Direction Only				Type of Meeting	X	Open	Closed


Report Title
Awarding of the Paquette-Whitson Municipal Drain

Resolution	Relationship to the Strategic Plan/Health Impact Assessment
<p>That the City of Greater Sudbury affirms their support of the Paquette-Whitson Municipal Drain under section 4(1)(c) of the Drainage Act and remains the petitioner; and</p> <p>Further that the City of Greater Sudbury approves the combined allocation of \$2.3 million from the Drainage and Stormwater Management Reserve Fund and Storm Water Management Reserve Fund and \$1.83 million from the Capital General Holding Account Reserve in order to award, as outlined in the report entitled "Award of Paquette-Whitson Municipal Drain", from the General Manager of Growth and Infrastructure, presented at the City Council meeting on July 9, 2019.</p>	<p>This report refers to What as identified in the Strategic Plan, under the Sustainable Infrastructure pillar.</p> <p>The completion of this project will result in improved and sustainable drainage infrastructure for the Dominion Park neighbourhood, control flooding, improves the quality of water reaching the Whitson River and open lands for development.</p>
Resolution Continued	Background Attached

Report Summary	Financial Implications
<p>This report has been prepared to affirm Councils commitment to the Paquette-Whitson Municipal Drain project in Val Caron and Hanmer. This report also seeks Council approval to fund a project shortfall of \$4.17 million from Drains and Stormwater Reserve Fund, Stormwater Deposits and 2020 Capital Budget.</p>	<p>The \$4.17 million shortfall can be funded by \$2.34 million from a combination of the Drainage and Stormwater Management Reserve Fund and developer deposits (for the Whitson River watershed) in the Storm Water Management Reserve Fund. The remaining \$1.83 million can be funded from the Capital General Holding Account Reserve.</p> <p>Staff will be presenting a report in the near future on upcoming debt financing and can include this project in this or future rounds of debt financing, if appropriate. Approximately \$8.0 million of the project cost will be incurred in 2020 and the use of debt financing would allow the return of funds to both Drainage and Stormwater Management Reserve Fund and the Capital General Holding Account Reserve.</p> <p>Proceeding with this project will allow for the potential development of approximately 700 lots generating additional development charge revenue to the City.</p>

Report Prepared By	Division Review
 Name: Paul Javor Title: Drainage Engineer	 Name: Stephen Holmes (Akli Ben-Anteur, Acting) Title: Director, Infrastructure Capital Planning

Recommended by the Department	Financial Implications
 Name: Tony Cecutti Title: General Manager, Growth & Infrastructure	 Name: Jim Lister Title: Manager, Finance Planning & Budgeting

Recommended by the C.A.O.
 Ed Archer Chief Administrative Officer

Background

Tributary VIII A, as shown in Figure 1, of the Whitson River was identified for drainage improvements in the late 1990's. In 1999 the former City of Valley East petitioned for drainage improvements under the Section 4(1)(c) of the Drainage Act to construct the Paquette-Whitson Municipal Drain. This project was envisioned to be an improved channel and new outlet to the Whitson River. The project however was not prioritized with the newly amalgamated City of Greater Sudbury and work was suspended.

Work was recommenced in 2004 to improve Tributary VIII A. In the period of 2005 to 2010 two other major drainage improvement projects were constructed in the area; the first being the Frost St. overflow channel which diverted major rainfall event water from Tributary VIII A and the Rivest Municipal Drain. Both of these projects improved conveyance of stormwater away from residential areas of Hanmer to the Whitson River. In 2010 the City met with the Conservation Authority regarding the Paquette-Whitson Municipal Drain and they recognized that the previous Frost St. and Rivest Drain projects increased the amount of water reaching the Whitson River and while those projects improved local conditions they likely produced a negative effect on Whitson River flooding.

The effect of the Whitson River flooding was not within scope of the Paquette-Whitson project however the flows of the Paquette-Whitson Municipal Drain could be over controlled to account for the improved conveyance of water to the Whitson River from the Frost St and Rivest Drain. This combined with the recommendations of the 2006 Stormwater Background study to manage the quality of stormwater reaching the environment led to the expansion of the Paquette-Whitson Municipal Drain to include large stormwater management ponds. The channel and stormwater management ponds of the Paquette-Whitson Municipal Drain control Tributary VIII A flooding and improve the quality of urban stormwater runoff before entering the Whitson River. As shown in Figure 2 the flood plain (light blue shading) of Tributary VIII A will be controlled within the proposed channel and stormwater management ponds, opening lands for new development.

Council accepted the February 8, 2012 Engineers Report, by Kenn Smart, P.Eng., for the Paquette-Whitson Municipal Drain in October 2012 and was adopted under By-Law 2012-192. In 2012 Council also accepted a financing program based on the conceptual design where the City would front end the required funds to construct the project for the developers. The developers portions would be recovered by a per lot charge at the time of development with interest increases over time.

From the period of 2012 to 2016 final design details were completed and approvals from the Department of Fisheries and Oceans and Ministry of the Environment were obtained. Designs were submitted to the Ministry of Natural Resources and Forestry in early 2017 to obtain required Lakes and Rivers Improvement Act (LIRA) approvals. The LIRA approval process was complicated with a great deal of back and forth and subsequent additional studies and submittals. During this time City staff also found efficiencies in the details of the project that would not compromise the purpose of the project but reduce the scope and improve the constructability. The LIRA approvals were received in May 2019.

This is one of the largest Municipal Drain projects undertaken through the Drainage Act in Ontario and among the largest stormwater management ponds in Ontario.

Construction of the Paquette-Whitson Municipal Drain

The Paquette-Whitson Municipal Drain construction has been broken down into three separate contracts, a clearing contract, the Dominion Drive box culvert (tendered as part of the Dominion Drive contract) and the main drain and stormwater ponds contract. The clearing contract was awarded and was completed below the estimate. The Dominion Drive contract has been awarded, initiated and the box culvert portion is above the estimate. This is due to a more difficult crossing of a major trunk sanitary sewer that serves Hanmer and maintaining traffic flow during construction than was in the original 2012 concept. This main drain contract is expected to be completed in October 2020 with a July 2019 start. The Paquette-Whitson Municipal Drain project was tendered and has come in over the total allocated project budget. A summary of costs and available funding is shown in Table 1.

Table 1: Paquette-Whitson Municipal Drain Cost Summary

Item	Total
ENG19-36 Paquette-Whitson Clearing	\$ 203,929.46
ENG19-16 Dominion Drive Box Culvert	\$ 1,732,820.16
ENG19-35 Paquette-Whitson Municipal Drain	\$ 9,130,605.78
Inspection, Quality Assurance, Engineering Review	\$ 450,000.00
Previous Expenses (Engineering, property acquisition)	\$ 1,226,369.00
Total Project Cost	\$ 12,743,724.40
2012 Project Budget	\$ 8,580,537.08
Budget Shortfall	\$ 4,163,187.32

The initial estimate for construction of the entire project in the Engineers Report was \$6 million and this cost has increased substantially due to changes to the original concept and increases in construction costs since February 2012. The changes in scope and budget were required as detailed design progressed beyond 2012.

The bid results for the Paquette-Whitson Municipal Drain project (ENG 19-35) have a difference in price of approximately \$3 - \$3.8 million from the low bidder to the next two bidders. The differences in price are likely due to the low bidder having available crews and equipment in the 2019/2020 winter season where the majority of work on this contract could be completed. The risk of retendering in 2020 could see prices increase by \$3 million, inline with the other bids, requiring approximately \$5 million in the 2020 budget. In addition, retendering the contract in 2020 would delay project completion into late 2021 or 2022, adding further delays to plans of area developers that require this project to be completed before they can initiate works.

Staff could add the additional required funds to the 2020 Capital Budget cycle, and the existing tender would be cancelled and tendered again in 2020 when budgets are approved. Based on experiences using the 2019 Capital Budget Prioritization Tool this project would rank well, however higher prices would likely be experienced if retendered in 2020.

Recommendations

Staff recommends approval of the additional required funding to realize the most competitive pricing. The \$4.17 million shortfall can be funded by \$2.34 million from a combination of the Drainage and Stormwater Management Reserve Fund and developer deposits (for the Whitson River watershed) in the Storm Water Management Reserve Fund. The remaining \$1.83 can be funded from the Capital General Holding Account Reserve.

As the contract price exceeds 133% of the construction cost estimated in the Engineer's report, the requirements of Section 59(1) and 59(2) of the Drainage Act apply. The petitioner, in this case, the City of Greater Sudbury, is to be given the opportunity to withdraw their name from the petition. If the petitioner's name is not withdrawn, Council may proceed with construction of the drain. Staff recommends that Council uphold the 1999 petition.

References:

Paquette-Whitson Municipal Drain, Hearing Committee, October 03, 2012.
<http://agendasonline.greatersudbury.ca/index.cfm?pg=agenda&action=navigator&lang=en&id=577&itemid=5457>

Paquette-Whitson and Horizon Municipal Drains - Possible Financing Options, Finance and Administration Committee, July 10, 2012
<http://agendasonline.greatersudbury.ca/index.cfm?pg=agenda&action=navigator&lang=en&id=489&itemid=5970>