



File: 11-5340-15

DATE: August 6, 2019
TO: Mayor and Council
FROM: Mike Younie, Chief Administrative Officer
SUBJECT: **Update on Sanitary Sewer Crossing Project**

This report provides an update on the sanitary sewer crossing project. No staff recommendation accompanies this report and Council action is not required.

PURPOSE:

The purpose of this report is to provide Council with an update on the progress of the Sanitary Sewer Crossing Project (Project), the funding shortfall and work that is being done to secure additional funding.

BACKGROUND:

Throughout 2019, significant efforts have been underway to secure commitments from senior levels of government to support the District of Mission by addressing policy, regulatory and funding challenges confronting the Sanitary Sewer Crossing Project. By recognizing the exceptional circumstances surrounding the current project, including the imminent risks that would accompany any significant project delays, our Provincial and Federal governments have an opportunity to demonstrate their shared commitments to protect our environment and support sustainable development and economic growth.

The Project would require a 950 m crossing of the Fraser River, with a proposed location just downstream of the Mission (Highway 11) Bridge crossing. The Project will install a 900 mm diameter steel wastewater forcemain under the Fraser River, from the District of Mission to the Joint Abbotsford Mission Environmental System (JAMES) Wastewater Treatment Plant that is in Abbotsford. The nature of this Project has necessitated that work been divided into two distinct components; the land works, and the river crossing.

This Project is urgently required given the age of the current pipe, the highly corrosive environment in which it sits, the fact the current pipe is likely at capacity and the significant environmental consequences should the existing pipe fail. A failure of this pipe has occurred in the past, but thankfully, was at a section of pipe buried in the ground near the Mission Raceway and containment was possible.

Should a failure occur in a section of pipe under the Fraser River, 11 million litres of untreated raw residential and industrial wastewater would discharge into the Fraser River daily until it was contained. This toxic waste would foul downstream shorelines all the way to Salish Sea, impacting critical habitat of the five Pacific salmon species, the endangered Fraser River White Sturgeon, the endangered southern resident killer whales and countless other species.

In addition, Mission is set to experience unprecedented growth and this growth cannot occur unless this Project is realized. Given the housing affordability issue in the Lower Mainland and the attention it receives from provincial and federal governments, this Project is a shining example of how senior governments can work with a local government to address infrastructure challenges that are so top of mind today.

Substantial recent progress has been made with respect to raising awareness amongst senior political and departmental officials within the provincial and federal governments of the challenges confronting this project, as well as the risks involved if these challenges are not addressed. While the District remains optimistic, it remains unclear whether these engagements will generate any direct support or collaborative solutions.

DISCUSSION AND ANALYSIS:

At this time the land works are nearing completion and the project should be moving towards completing the river crossing this winter. The new forcemain will be installed under the Fraser River at a depth of approximately 15 m using a dredge, drag and cover method. Technical feasibility and costs restricted the use of alternative construction methods such as horizontal directional drilling.

The new pipe will be offset 150 m from the existing alignment for the duration of the river crossing to allow for sufficient clearance during trench dredging. The trench for the forcemain will be excavated using a Cutter Suction Dredger (CSD) after which the submerged pipeline will be pulled across the river within the trench. A CSD is equipped with a rotating cutter head that cuts through the bottom substrate. The substrate is subsequently sucked up by a dredge pump and discharged through a floating pipe to an upland stockpile.

In order to obtain the depth, the dredging activities will require a side slope ratio of 5 horizontal:1 vertical, resulting in a width ranging from 95 m to 150 m. During construction, it is anticipated the dredged sediments will be stockpiled on land on the north side of the river – negotiations are continuing with a landowner. Once the pipe is appropriately situated, the trench will be filled with dredged material from an adjacent borrow pit to provide a minimum of 4.0 m of cover over the new forcemain. Upon completion of construction, the banks of the Fraser River will be returned to their original condition and the river bed will naturally return to its pre-dredged condition.

The District has been in regular contact with the Matsqui First Nation, Leq'a:mel First Nation, and Kwantlen First Nation on this Project and believes that expressed Aboriginal Interests will not be materially affected by the Project. Members of the Matsqui and Kwantlen First Nations have already received employment in the early stages of the Project; the District fully expects additional employment and procurement opportunities for members to be realized during the Project.

In order to meet the completion date set by the Clean Water and Wastewater Fund (CWWF) grant program and avoid delays that put our community and our environment at risk, the District will need to secure all remaining permits and Right of Way agreements, sufficient funding, and a qualified contractor no later than November 2019. The work window for the river crossing is expected to be December 2019 to February 2020 with final tie-ins completing in March 2020.

The following summarizes the status of permitting as of June 26, 2019:

Agency	Status
Ministry of Agriculture and Land	Complete
Department of Fisheries and Oceans	Conditional permission to proceed February 9, 2018
Canadian Environmental Assessment Agency.	Not Reviewable December 10, 2018
British Columbia Environmental Assessment Agency	Conditional Exemption Order granted June 4, 2019.
Ministry of Forests, Lands, Natural Resource Operations and Rural Development (Water Sustainability Act)	Submitted February, 2018; File #:2006342 Slough Crossing – Complete River Crossing - Under Review
Ministry of Environment-Diking Authority	Under Review
Ministry of Environment-Water Stewardship Division	Under Review
Transport Canada	Submitted August 2017; File #: 2017-500366. Under Review
Crown Land Tenure	Submitted April, 2018; File #:2412194 and 2412073 Under Review
Heritage Inspection Permit	Complete
Fraser Health Authority Permit	Complete
CN Rail Proximity Authorization	Complete

Recently, the District received an exemption from having to complete a BC Environmental Assessment. The most significant outstanding approval is the BC Water Sustainability Act approval to allow for the dredging. This is progressing and it is hopeful that it will be issued in the coming weeks. Provided it is issued, the remaining outstanding approvals are expected to follow quickly. It should be noted, however, that there remain many unknowns with respect to timing when the remaining works are tendered and when the contractor could mobilize. It may be that completing the work this fall and winter is simply not possible and requesting a 1-2 year extension is recommended at this time regardless.

FINANCIAL IMPLICATIONS:

A project of this magnitude has significant funding implications. Engineering studies completed in 2012 and updated in 2015 estimated the cost at about \$12,000,000 with some costs not being eligible for grant funding. The District was successful in obtaining grant funding through CWWF in the amount of \$6,900,000.

The original estimate has grown to \$32,000,000 due to a number of factors. Some known or assumed contributing factors include:

- Pipe diameter increase from 750mm to 900mm;
- Sand was originally thought to go to JAMES Plant for expansion but Abbotsford would not accept sand which resulted in the need to negotiate sale on Mission side of the river;
- Very large inflation of construction costs between 2016 and now;
- Cost of American Steel went up and value of Canadian Dollar went down;
- Trade dispute resulted in a 25% steel tariff;

- Permitting requirements greatly exceeded expectations and have onerous and expensive conditions attached to them;
- Detailed design triggered a review by the Environmental Assessment Agencies and comprehensive consultations with First Nations;
- Availability of qualified contractors was reduced to only three for the land works two for the river crossing; and
- Design complications due to the complex nature of the existing system and environmental constraints.

The CWWF funding is set to expire on March 31, 2020. If the entirety of the required land works and river crossing are not complete by that date the District risks losing the funding. Recently, CWWF has suggested that an extension might be possible but that there is no additional funding available. Repeated requests have been made to both the federal and provincial governments to allow the District to retain our existing funding to apply entirely to the land works, which would at least provide much needed certainty that our existing funding can be retained. This potentially could provide the District with an opportunity to apply for new funding in the future to complete the river crossing as the District would be ineligible to apply for funding twice for the same project.

Up until recently, the CWWF had provided a one-time initial payment of about \$2,200,000 and the BC government was withholding releasing any more eligible funds for reasons that were not exactly clear and may have involved misunderstandings with respect to permitting and/or First Nation Consultations. It was difficult for staff to determine exactly what decisions were being made by which level of government in this case where communication was somewhat lacking and two levels of government were involved. More recently, building on relationships that have recently been established with relevant provincial and federal elected and staff, Mission was successful for at least the time being in securing support that has led to new claims being submitted for reimbursement.

The Land works are expected to cost roughly \$10,000,000 with the river crossing costs estimated at \$22,000,000. The District remains hopeful that these costs will be offset by funds secured through the CWWF grant and the sale of dredged sand; combined to total roughly \$9,000,000. Additionally, the District has already committed roughly \$7,000,000 to the project. This leaves the project with a funding deficit of about \$16,000,000. These costs include both known costs and estimated costs plus twenty percent contingency.

Given the significant funding shortfall, the District has been actively exploring options to secure additional required funding including:

- Borrowing;
- Additional grants; and
- Direct funding contributions from senior governments.

Borrowing is possible but has significant impacts on sewer utility charges going forward. This will also negatively impact the District's fiscal capacity to pursue other priority projects in the near-term. In addition, the electorate will not differentiate between sewer utility fee increases and general tax increases. Given the desire to maintain tax increases at reasonable levels, borrowing to cover the deficit will negate the ability to raise additional taxes for provision of expected new services and thus there is a lost opportunity cost to having to borrow for this Project. Further information regarding the impact of borrowing will come to Council in the future should securing additional funding not be successful.

Securing additional grants is problematic for a number of reasons. Typically, grant programs do not permit stacking of grants. The next eligible grant program is not expected to start accepting grant applications until the fall of 2020 at the earliest, although the Minister and CWWF officials have indicated that it may be longer and that this Project may not be eligible under the new program. This is also somewhat uncertain given the fall federal election and the potential for a change in government and grant programs.

Without the river portion connected to the land works and the entirety of both project phases substantially completed, District staff have been told that none of the land portion construction costs expended to date would be eligible for the current grant funding. It therefore remains completely uncertain whether the District will ultimately be in a position to retain all or any of the \$6.9 million in funding announced by the federal and provincial governments in March, 2017, including funds that have already been released. CWWF staff have suggested that the District could rescope the project as a design-only project which would mean only about \$1,000,000 of the \$10,000,000 spent to date would be eligible for the existing grant funding. The District could take its chances and wait a year or more to see if the river portion would be eligible for a future grant program but there are no guarantees it would be successful and the process involved in reviewing and approving a new application, signing a new contribution agreement, issuing tenders and beginning construction could take an additional year or more. Furthermore, because the land portion is already constructed, none of those already-incurred costs would be covered by a future grant. Also, the current grant was fairly generous in that 83% of the original eligible costs were funded by the grant. There is no indication that degree of subsidy will exist in a new grant program to which the District would apply for the balance of the river portion - \$22,000,000. In the end, the District would be waiting at least a year with no guarantees that it would be successful in securing a new grant albeit that the potential of the new grant could be a maximum of \$16,000,000 relative to the \$7,000,000 currently allocated.

The preferred source of additional funding is to secure a cash injection from senior level governments as this would allow the Project to complete by early 2020. Though this would be uncommon, it does happen in unique situations. For example, there are reports that BC Treasury Board recently approved an additional \$11 million in funding in May 2019 for the McKenzie Interchange Project. The project was approved for a maximum of \$85 million in federal and provincial funding under New Building Canada Fund, which is the same funding source as the CWWF program and is governed under the rules and stipulations of the same federal-provincial bilateral agreement. The exceptional nature of the District's funding request, including the environmental risks involved, mean that additional support would not set a precedent or be unfair to other municipalities experiencing challenging projects. Moreover, District staff have been told that a cash injection would not affect the grant monies that have already been secured.

Given the District has had limited success when applying for federal grant programs for a variety of initiatives over the last four years, it is disappointing that the federal government is not enthusiastically showcasing this Project. The federal government has been outspoken in its commitments to protect the environment, support housing affordability, and generate economic growth through \$186.7 billion in new infrastructure investments. This Project is therefore consistent with stated federal government objectives and would be an excellent demonstration of support for Mission taxpayers by helping to offset the large deficit that is completely beyond their control and prevent project delays that could have serious implications for the environment and for our community's development. It would seem as though this Project would present an excellent opportunity for the federal government to achieve its goals and demonstrate its support.

To assist with securing a cash contribution and to provide support on related issues, Council determined it was necessary to retain the Capital Hill Group in Ottawa to assist the District with lobbying senior governments for financial support from mid June to mid August. The following table details the efforts that have been made to date:

Date	Action	From	To
30-Nov-18	Meeting in Mission	Mayor Alexis	MP Jati Sidhu
12-Feb-19	Meeting in Mission (canceled due to snow)	Mayor Alexis	Minister of Infrastructure and Communities, François- Philippe Champagne
06-Mar-19	Letter Sent	Mayor Alexis	Minister of Infrastructure and Communities, François- Philippe Champagne

Date	Action	From	To
30-Apr-19	Meeting	Mayor Alexis	MP Matt Jeneroux, Shadow Minister for Infrastructure, Communities and Urban Affairs
05-May-19	Letter Received	Minister of Infrastructure and Communities, François-Philippe Champagne	Mayor Alexis
03-Jun-19	Council opted to hire lobbyist (Capital Hill Group)		
12-June-19	Emails Sent	Capital Hill Group	Minister of Fisheries and Oceans, Jonathan Wilkinson (plus staff)
12-June-19	Emails Sent	Capital Hill Group	Minister of Public Services and Procurement and Accessibility, (plus staff)
13-Jun-19	Letter Sent	Mayor Alexis	BC Premier Horgan
13-Jun-19	Letter Sent	Mayor Alexis	BC Minister of Municipal Affairs and Housing, Selina Robinson
18-Jun-19	Mayor Alexis Trip to Ottawa	18-Jun-19	21-Jun-19
19-Jun-19	Meetings in Ottawa	Mayor Alexis/ Capital Hill Group	Briefing Session with Capital Hill Group
19-Jun-19	Meetings in Ottawa	Mayor Alexis/ Capital Hill Group	Meeting with Office of the Minister of the Environment and Climate Change, Catherine McKenna
19-Jun-19	Meetings in Ottawa	Mayor Alexis/ Capital Hill Group	Meeting with MP Gordie Hogg, Chair of Liberal Pacific Caucus and MP Jati Sidhu
19-Jun-19	Email Sent	Executive Assistant	MLA D'Eith's Office
19-Jun-19	Emails Exchanged and Meeting Arranged	Executive Assistant	MLA Gibson's Office
19-Jun-19	Letter Sent	Mayor Alexis	Minister of Infrastructure and Communities, François-Philippe Champagne
20-Jun-19	Meetings in Ottawa	Mayor Alexis/Capital Hill Group	Meeting with MP Ed Fast
20-Jun-19	Meetings in Ottawa	Mayor Alexis/ Capital Hill Group	Meeting with Office of the Minister of Infrastructure and Communities, François-Philippe Champagne (Plus Departmental Officials)
20-Jun-19	Meeting Confirmed / Request for Assistance	Executive Assistant	MLA D'Eith's Office
25-Jun-19	Emails Sent	Capital Hill Group	Office of BC Minister of Municipal Affairs and Housing, Selina Robinson
27-Jun-19	Emails Sent	Mayor Alexis/Mike Younie	Capital Hill Group
27-Jun-19	Email Sent	Mayor Alexis	MP Ed Fast
27-Jun-19	Email Sent	Mayor Alexis	MPs Jati Sidhu and Gordie Hogg
27-Jun-19	Letter Received	Minister of Infrastructure and Communities, François-Philippe Champagne	Mayor Alexis
5-July-19	Letter Sent	Mayor Alexis	FED Minister Champagne

Date	Action	From	To
28-Jun-19	Meeting with MLA D'Eith	Mayor Alexis	MLA D'Eith
7-July-19	Meeting in Ottawa	Capital Hill Group	Prime Minister's Office
10-Jul-19	Meeting with MLA Gibson	Mayor Alexis	MLA Gibson (MP Jati Sidhu)
18-Jul-19	Conference call	Capital Hill Group	Office of the Minister of Fisheries and Oceans, Jonathan Wilkinson
22-Jul-19	Meeting	Mayor Alexis	Speaker Darryl Plecas (MP Jati Sidhu)
24-July-19	Letter Sent	Mayor Alexis	MP Gordie Hogg / Copied to local MP and MLAs
31-July-19	Conference Call	Mayor Alexis	BC Minister of Municipal Affairs and Housing, Selina Robinson (plus senior political and departmental staff)

Staff will continue to advocate for the need for additional funding for this project over the next several months and will work with elected officials, their staff and others as necessary to draw as much attention as possible to the serious predicament this Project finds itself in.

COMMUNICATION:

It is hoped that this report will stimulate discussion within the community and garner the support and attention of provincial and federal elected officials, downstream local governments, concerned stewardship groups and other advocates that all have an interest in finding a resolution that will allow this Project to be completed as quickly as possible.

SUMMARY AND CONCLUSION:

The anticipated cost of completing the sanitary sewer crossing has nearly tripled from earlier estimates as a result of various factors. This Project is considered critical because of the significant environmental consequences should a failure occur within the existing pipe and also because future growth of Mission will be stopped in its tracks as will its role in resolving the Lower Mainland's housing affordability crisis. While the District did obtain grant funds based on the original Project budget, the deficit is well beyond Mission's capacity to pay. There is significant uncertainty surrounding how much, if any, of the \$6.9 million in federal and provincial funding for this project can be retained, limited ability for existing grant agreements to be modified to help resolve the deficit and no additional funds have been made available at this time. The preferred option is to continue lobbying provincial and federal governments for a cash contribution. This Project represents an exceptional opportunity for senior governments to demonstrate support for this Project and to showcase their government's understanding of infrastructure challenges facing local governments and their commitment to working in partnership with local governments to find solutions.

SIGN-OFFS:



Mike Younie, Chief Administrative Officer