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FULFORD WATER SERVICES COMMISSION

Notice of Meeting on **Thursday, September 10, 2020 at 1:00 pm**
Creekside Meeting Room, 108 121 McPhillips Ave., Salt Spring Island, BC

Electronic meeting for CRD Staff and Commission Members; Members of the public can call in and listen to the meeting by phoning 1-833-353-8610 and using participant code 8264402

Gary Holman

Anthony Maude

Carole Eyles

Gord Singbeil

Alan Martin

(r) regrets

AGENDA

1. **Approval of Agenda**
2. **Approval of Minutes May 7, 2020**
3. **Director, Chair and Commissioner Reports**
4. **New Business**
 - 4.1 **Alternative Design and Application to Transfer Additional Community Works Fund for Fulford Water Main Replacement Project**

That the Fulford Water Service Commission recommends that the Capital Regional District Board amend the Fulford Water Service's Five Year Capital Plan to increase the project budget by \$38,500 from \$60,600 to \$99,100 in year 2020 and that staff apply for Community Works Funds to fund the additional \$38,500.
 - 4.2 **Fulford Ganges Road – Road weight limits**
5. **Outstanding Business**
 - 5.1 **Backup Power Plans**
6. **Adjournment**

To ensure quorum, advise Tracey Shaver 250 537 4448 if you cannot attend.



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Minutes of the Meeting of the FULFORD WATER SERVICE COMMISSION
Held Thursday May 7, 2020 in the Creekside Room, 108 121 McPhillips Ave, Salt Spring Island, BC ** Teleconference

DRAFT

Present:

In person: Carole Eyles, Chair; Karla Campbell, Senior Manager, Salt Spring Island Electoral Area; Allen Xu, Manager SSI Engineering; Tracey Shaver, Recording Secretary

Via telephone: Gary Holman, CRD Director; Alan Martin; Anthony Maude

Absent: Gord Singbell

Chair Eyles called the meeting to order at 2:03 pm.

1. Approval of Agenda

First meeting of the year; per bylaw need to elect a Chair.

MOVED by Commissioner Martin, **SECONDED** by Commissioner Maude,
That the Fulford Water Service Commission meeting agenda of May 7, 2020 be amended to add election of chair as item 1.5.

CARRIED

1.5 Election of Chair

By acclimation, Carole Eyles was voted in and accepted the position of Chair.

2. Approval of Minutes: October 8, 2019

MOVED by Commissioner Maude, **SECONDED** by Commissioner Martin,
That the Fulford Water Service Commission meeting minutes of October 8, 2019 be approved and amended by striking the words in item 4.1 under fencing "non-negotiable-falls under".

CARRIED

3. Director, Chair and Commissioner Reports

3.1 No chair report.

- 3.2**
- Director Holman briefly mentioned that the CRD will be overseeing a sustainability study on Weston Lake; this will assist with determining compliance needs for the Vortex project; no fees to be charged to the Fulford water service.
 - Island Wide Water Optimization Study almost complete.

4. New Business

4.1 Fulford Water Service – Reynolds Road Strainer Facility Building Demolition
Capital Project Budget

- Concerns expressed that CRD is being held to higher standard than average person for demolition of this small building.
- CRD obligated to disclose hazardous materials and dispose of them properly.
- The invitation to bid process was used to obtain quotes for work.
- The Capital Reserve balance was verbally discussed; staff to review for actual balances.

MOVED by Commissioner Martin, **SECONDED** by Commissioner Maude,
That the Fulford Water Service Commission recommend that Capital Regional
District Board amend Fulford Water Service's Five Year Capital Plan to include a
revised project budget in the amount of \$27,750 for the Reynolds Road Strainer
project in year 2020.

CARRIED

5. Outstanding Business- none to report

6. Adjournment

MOVED By Commissioner Eyles, **SECONDED** by Director Holman,
That the meeting adjourn at 2:40 pm.

CHAIR

SENIOR MANAGER



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**REPORT TO FULFORD WATER SERVICE COMMISSION
MEETING OF SEPTEMBER 10, 2020**

SUBJECT ALTERNATIVE DESIGN AND APPLICATION TO TRANSFER ADDITIONAL COMMUNITY WORKS FUND FOR FULFORD WATER MAIN REPLACEMENT PROJECT

ISSUE

To inform the Commission of a proposed alternative design and construction approach and to request approval of a revised budget and an application for additional Community Works Funds.

BACKGROUND

The Fulford Water service area is a semi-rural residential community located on Salt Spring Island and comprised of 102 parcels of land with 91 of those parcels connected. Within those 91 parcels, there are 95 single family equivalents (SFE) as the use on some parcels represent more than one dwelling.

There is a section of 4" diameter asbestos cement water main which crosses the Weston Creek along Morningside Road. This water main has become exposed due to erosion and crosses over the creek above ground which subjects it to potential vandalism and other adverse environmental factors (e.g. frost damage).

A project was sanctioned in 2016 to complete an engineering design for the removal of the exposed water main over the creek and install a new section of the pipe underneath the creek (1 m below). The detailed design and specification was completed in 2017 and an Invitation to Tender (ITT) process was carried out for the construction with two bids received in June 2018 that were \$53,100 and \$54,930, respectively. A decision was made to cancel the tender at the August 2018 Fulford Water Commission meeting and the project was deferred to 2019. The project was further discussed and reviewed at the Capital Regional District (CRD) Board meeting on September 19, 2018 and the decision was made to proceed with project construction in 2018 or defer to 2019 season if weather conditions were not favourable for in-stream construction and retender if necessary.

Throughout the project permitting process, concerns have been raised by various regulators with respect to the risks to the environment should the water main fail resulting in chlorinated water entering the creek. In addition, there is a risk of potential blockage of fish passage up and down the creek due to the existing water main that is suspended above ground. The regulators expect these risks be mitigated by the CRD.

The project was tendered again in February 2019 and received four bids with the lowest bid being \$33,024 and the highest bid being \$94,047. At the request of the Commission, staff also initiated discussions with CRD Integrated Water Services (IWS) Water Operations staff if the work for this project could be accomplished with internal forces. Based on discussions and conditions in March

2019, the estimated costs for CRD IWS to complete the construction was approximately \$15,000. The estimate was based on the review of the design drawings, and tender documents, and discussions with SSI Engineering. At the Fulford Water Service Commission meeting in May of 2019, a decision was made to proceed with the project using CRD internal forces to carry out the construction at the total project budget of \$60,600 (\$40,600 on design and project management and \$20,000 for construction).

Alternative Design Evaluation, Cost Estimate and Budget

The project was however not constructed in 2019 due to high water/flow conditions in the creek throughout the 2019 construction season in addition to the lack of engineering resources for Salt Spring Island for the majority of 2019. A site visit was conducted in early 2020 by CRD IWS and SSI Engineering. During that visit, the risk of encountering bedrock in the alignment selected by the design engineer was highlighted by CRD construction crews. Construction through bedrock would require excavation and potentially blasting. In addition, there are challenges associated with constructing in the vicinity of the 1.4 m diameter maple tree. It is anticipated that these factors that were underestimated in the design drawing, combined with the requirements associated with constructing in-stream works (cofferdam, fish salvage and environmental reporting) would bring the total estimated construction costs to between \$60,000 and \$95,000.

Given the higher than originally estimated construction costs, CRD staff have conducted an additional evaluation of alternative options to construct the water main. One alternative option would involve removing the existing pipe in the stream and rerouting the water main to cross the creek in the roadway structure. The benefits of such an option over the designed approach are that substantial rock excavation and costs associated with working in stream could be greatly reduced.

Prior to initiating the alternative design, staff have discussed the approach with Island Health , Forests, Lands, Natural Resource Operations and Rural Development (FLNRO), and Ministry of Transportation and Infrastructure approval officers who generally are amenable to the new approach, subject to detailed review and approval once the official application is submitted. Originally the Ministry of Transportation and Infrastructure (MoTI) was not in favour of the alternative approach. However staff requested an opportunity to present project details and discuss further with MoTI approval staff and technical review engineer, explain the reasons behind the proposed changes and hear their concerns. Staff were eventually successful in persuading MoTI who indicated they will consider an alternative approach for this project if roadway cuts are remediated properly as per MoTI requirements.

It is estimated that the construction costs associated with this alternative option would be \$40,000, based on quotes provide by CRD IWS in May 2020. A summary of existing construction approach and alternative option cost is provided in Table 1:

Table 1 Estimated Project Costs for Fulford Water Main Replacement

Project Cost Items	Current Option 1 (Pipe Crossing under Creek)	Alternative Option 2 (Pipe Crossing in Roadway)
· Design and Obtain/Renew Regulatory Permits (to be performed)	\$800	\$10,000
· Project Management, Monitoring and Control, and Contract Administration (to be performed)	\$4,000	\$4,500
· Project Construction ¹ (to be performed)	\$60,000-\$95,000	\$40,000
· Construction Contingency (15%) ²	\$9,000-\$14,250	\$6,000
Total Estimated Costs of Work to be Performed	\$73,800 - \$114,050	\$60,500
Total Project Spending to Date (since 2016)³	\$37,839	\$37,839
Total Revised Project Budget (A)	\$111,639-\$151,889	\$98,339
Original Budget (B)	\$60,600	\$60,600
Budget Increase Required (A-B)	\$51,039-\$91,289	\$37,739

1) Lower bound is estimated cost under favourable construction conditions, upper bound is estimated cost for the worst case scenario.

2) Construction contingency will be accessed if unexpected costs arises during construction and will be returned to Capital Reserve Fund if not needed.

3) A breakdown of spending to date is provided in Table 2 below.

At the May 13, 2019 Fulford Water Commission meeting the project budget was amended and approved. The total budget approved was \$60,600 (\$40,600 on design and project management and \$20,000 for construction). A summary of project budget and spending to date is provided in Table 2.

Table 2 Fulford Water Main Project Budget and Spending (2016 to 2020)

Project Cost Items	Spending (2016 to 2020)
Project Design	\$21,959
Site Survey	\$1,940
Project Management, Monitoring and Control, and Contract Administration	\$13,940
Total Project Spending to Date (since 2016)	\$37,839

The Electoral Area Director has confirmed a contribution of \$50,000 Community Works Funding (CWF) to cover the costs of the water main replacement project. To date \$11,500 has been applied for and transferred into the project fund. To complete this project, staff will make a further application for CWF funding of \$38,500 to fund this project.

ALTERNATIVES

Alternative 1

That the Fulford Water Service Commission recommends that the Capital Regional District Board amend the Fulford Water Service's Five Year Capital Plan to increase the project budget by \$38,500 from \$60,600 to \$99,100 in year 2020 and that staff apply for Community Works Funds to fund the additional \$38,500.

Alternative 2

That the Fulford Water Service Commission recommends that the Construction of the Fulford Water Main Replacement project be referred back to staff.

IMPLICATIONS

Financial Implications

Currently there is a total budget of \$60,600 approved for the project, of which \$11,500 was funded through Community Works Fund (CWF) and \$49,100 was funded by the Capital Reserve Fund (CRF).

If approved, Staff will apply for the remaining \$38,500 from the CWF fund resulting in a total of \$50,000 CWF funding for the project. The CWF fund will be used towards cost items that are eligible as per CWF funding criteria. Total estimated CWF eligible cost is approximately \$59,899, \$50,000 of which will be covered by the CWF funding. A breakdown of project cost items and CWF eligibility is provided in Table 3:

Table 3 Fulford Water Main Project Budget and Spending CWF Eligibility (2016 to 2020)

Project Cost Items	Amount	CWF Eligibility
Project Design <i>(already spent)</i>	\$21,959	Eligible
Site Survey <i>(already spent)</i>	\$1,940	Eligible
Project Management, Monitoring and Control, and Contract Administration <i>(already spent)</i>	\$13,940	Not Eligible
Design and Obtain/Renew Regulatory Permits	\$10,000	Eligible
Project Management, Monitoring and Control, and Contract Administration	\$4,500	Not Eligible
Project Construction	\$40,000	Approximately \$26,000 eligible (contracted services and supplies)
Construction Contingency (15%)	\$6,000	Not Eligible
Total Cost Eligible for CWF – funded from CWF and CRF		\$59,899
Total Cost Ineligible for CWF – funded from CRF		\$38,440
Total Estimated Revised Project Budget		\$98,339

Therefore the total to be funded by CRF is \$50,000 which is equal to the amount originally approved in 2016.

Environmental Implications

Various regulators have become aware of the project details and associated risks under their respective jurisdiction. The postponement or cancellation of this project may trigger enforcement and compliance actions from the regulators, particularly if an incident of water main break or leak occurs in the near future.

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Alternative Design Fulford Water Main Replacement Project - Community Works Fund 5

Proceeding with the construction of the water main being completed in 2020 would greatly reduce/eliminate environmental and financial risks associated with a water main break and alleviate regulators’ concerns around chlorinated water release into the stream and impediment of fish passage.

The alternative design does not require in-stream construction which greatly reduces the risk to the environment. In addition, the construction timeline is much more flexible as the in-stream construction window associated with protection of fish habitat would not have to be accommodated.

Service Delivery Implications

Replacement of this section of water main would reduce the risks associated with an unplanned failure and the resulting water service interruption/outage.

CONCLUSION

Completion of the Fulford water main replacement project is required to reduce the risks to the CRD and Fulford Water Service as well as address concerns of the regulators with respect to the release of chlorinated water directly into a fish bearing stream. . Due to costs associated with rock excavation as well as regulatory/environmental requirements including tree protection and removal, fish salvage and environmental reporting the existing design and construction approach were found to be not cost-effective. Staff recommend proceeding with design and construction of an alternative option which would cross the creek in the roadway and result in significant cost savings and less environmental risk as compared to the original design and construction approach.

RECOMMENDATION

That the Fulford Water Service Commission recommends that the Capital Regional District Board amend the Fulford Water Service’s Five Year Capital Plan to increase the project budget by \$38,500 from \$60,600 to \$99,100 in year 2020 and that staff apply for Community Works Funds to fund the additional \$38,500.

Submitted by	Allen Xu, MSc.,P.Eng., Manager of Engineering, Salt Spring Island Electoral Area
Concurrence	Karla Campbell, Senior Manager, Salt Spring Island Electoral Area
Concurrence	Matthew McCrank, MSc., P.Eng., Senior Manager, Wastewater Infrastructure Operations, Integrated Water Services
Concurrence	Ted Robbins, B.Sc., C.Tech., General Manager, Integrated Water Services
Concurrence	Rianna Lachance, BCom, CPA, CA, Senior Manager Financial Services
Concurrence	Nelson Chan, MBA, CPA, CMA, Chief Financial Officer, Acting Chief Administrative Officer

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