

DATE: October 12, 2016

FILE: 5340-02

TO: Chair and members
Comox Valley sewage commission

FROM: Debra Oakman, CPA, CMA
Chief Administrative Officer

RE: Capital assistance agreement- HMCS Quadra project update

Purpose

To seek board approval to sign an updated contribution agreement for the forcemain replacement from HMCS Quadra to Croteau Road funded by the Department of National Defence (DND) capital assistance program (CAP).

Policy analysis

Bylaw No. 2541 being the “Comox Valley Sewerage Service Establishment Bylaw No. 2541, 2003” was adopted to convert the function to a service as defined in the bylaw. The bylaw defines the participants as the City of Courtenay, Town of Comox, and the DND.

At the December 11, 2014 Comox Valley Regional District (CVRD) board meeting the following resolution was adopted:

THAT as a result of a competitive process, the contract for the design and construction management services for HMCS Quadra forcemain replacement be awarded to McElhanney Engineering in the amount of \$131,431.30 exclusive of GST;

AND FURTHER THAT the chair and corporate legislative officer be authorized to execute the contract;

AND FINALLY THAT the chair and corporate legislative officer be authorized to execute the capital assistance agreement

Executive summary

The Comox Valley sewerage system (CVSS) was installed and commissioned in the early 1980's in response to a need for improved sewage treatment for the City of Courtenay, Town of Comox and the DND. As part of the project construction, the old outfall previously utilized by the Town of Comox became available for use as a sewer forcemain from HMCS Quadra to the CVRD pump station located at Jane Place. The forcemain was initially installed in the early 1960's and is currently in poor condition and requires replacement.

In 2014 DND retained Ausenco (engineering consultants) who completed a study assessing the different options available for replacement of the forcemain. After reviewing three possible options Ausenco recommended that the forcemain be replaced as a submarine line along the existing right of way.

In early 2015 the CVRD entered into a contribution agreement with DND as part of DND's CAP for the HMCS Quadra forcemain replacement project. The CAP provides funding for infrastructure projects that when complete, become the property of local government to own, operate and maintain in perpetuity. All initial capital costs for upgrades and replacements are provided by DND through the CAP. As part of the CAP the CVRD awarded detailed engineering to McElhanney Consulting Services Ltd. for the sewage forcemain replacement from HMCS Quadra at Goose Spit to the CVRDs existing Comox No. 1 sewerage pump station at Jane Place.

As part of the detailed design work, McElhanney assessed the environmental risks associated with the submarine crossing. The original proposed route was determined to likely result in permanent destruction of eel grass habitat and may result in the destruction of the yellow sand verbena plant. Considering the environmental risks McElhanney investigated an alternate inland route aligned directly along Goose Spit Road, which discharges temporarily into the Town of Comox sewer system at the intersection of Docliddle and Croteau Roads, route map attached as Appendix A. The alternate route eliminates all marine impacts and provides greater flexibility to avoid the yellow sand verbena plant.

DND reviewed McElhanney's assessment and agreed that an inland route is preferred over the submarine crossing. As a result of the above change in project concept and scope, DND completed the original contribution agreement with the CVRD and McElhanney issued change order no. 1 crediting the remaining design budget and construction management fees for the original alignment.

The capital assistance program consists of two contribution agreements, the first for design and the second for construction management. To reflect the change in scope, a new contribution agreement for design is required based off the proposed new route and scope of work. In January 2016, McElhanney issued change order no. 2 and provided an updated schedule and fee proposal for the new alignment.

In addition the inland route will require an upgrade to the DND pump station at Goose Spit. As part of the upgrade work DND has requested that the pump station also be included in the new contribution agreement. On March 10, 2016 McElhanney provided an updated estimate of engineering fees for the re-design of the HMCS Quadra forcemain and pump station alignment. Change orders no. 3 and no. 4 for each contingent budget item were provided prior to commencing work and requested additional funds for design and construction management of the forcemain and the pump station upgrades. Engineering fees that are to be covered in the new contribution agreements are outlined in table no. 1 below. In the contribution agreement for design, only phase 1 (design fees) will be included.

Table No. 1: Estimated engineering fees for design and construction management

McElhanney Engineering Fees		
Change Order	Phase 1 Design and Procurement	Phase 2 Construction Management
No. 2	\$87,641.62	\$87,700.00
No. 3	\$28,473.76	\$0.00
No. 4	\$42,016.60	\$20,271.30
Total Engineering Fees	\$158,131.98	\$107,971.30

The inland route initially discharges to the Town of Comox sewer which then travels down Croteau Road and along the foreshore to the existing Comox No. 1 pump station at Jane Place. The tie-in to Comox's gravity system is considered temporary until the completion of the future Comox No. 2

pump station on Beech Street. CVRD staff have retained ZINC Strategies to assist in public consultation for the project. Project communications will consist of a pre-construction open house and bi-monthly communications support during construction. A fee estimate for communication support is summarized in table no. 2 below. As part of the design contribution agreement only coordination of a pre-construction open house will be included.

Table No. 2: Estimated fees for communications support

ZINC Strategies Communication Fees		
Project Task	Phase 1 Design and Procurement	Phase 2 Construction Management
Coordinating a pre-construction open house	\$8,270	
Bi-monthly communications support during construction		\$11,120
Total Communications Costs	\$8,270	\$11,120

Additionally as part of the CAP, CVRD staff time and general administration costs for the project are included as part of the agreement. General administration costs for the project are expected to be 1.3 per cent based off a combination of the expected level of service required from CVRD staff for the project and the CVRD’s general administration charge. Staff involved in this project include the senior manager of water/wastewater services, the manager of wastewater, an engineering analyst and the branch assistant for engineering services. Each team member is estimated to spend six hours a month on the project during the design and procurement phase. With the change in scope, the new contribution agreement for design will cover CVRD costs beginning in February 2016 and will end in December 2016 when procurement is complete. Table no. 3 below outlines the CVRD costs that are to be included in the design contribution agreement only.

Table No. 3: CVRD project costs

CVRD Staff and General Administration Costs					Phase 1 Design And Procurement
CVRD Staff Time	Staff Time 6hrs/ month	Months 11	Rate \$50/hr	Staff Involved 4	\$13,200
General Administration	1.3% of Phase 1 Engineering and Communications Costs				
Total CVRD Costs					\$15,363.23

The total contribution agreement for design and procurement includes engineering, communication and CVRD fees and totals \$181,765.21 dollars as detailed in the table below.

Table No.4: Monetary value of contribution agreement for phase 1- design and procurement

Project Task	Cost
Engineering Design	\$158,131.98
Communications	\$8,270.00
CVRD Costs	\$15,363.23
Contribution Agreement Total	\$181,765.21

Following the completion of the forcemain and pump station design, the CVRD will enter into a second contribution agreement for project construction. Design and procurement are expected to be completed by December with construction to begin spring 2017. All capital project costs involved with the design, construction and construction management are borne by DND as part of the capital assistance program. Upon completion of the project, the CVRD will be the owner of the forcemain

and pump station and will be responsible for all future operation, maintenance and capital replacement costs.

Recommendations from the chief administrative officer:

THAT as the result of a change in project scope an updated contribution agreement in the amount of \$181,765.21, exclusive of GST, be entered into with the Department of National Defence as part of the capital assistance program;

AND FINALLY THAT the chair and corporate legislative officer be authorized to execute the contribution agreement.

Respectfully:

D. Oakman

Debra Oakman, CPA, CMA
Chief Administrative Officer

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Attachment: Appendix A – “Map of proposed HMCS Quadra forcemain route”

