



englishman river
WATER SERVICE

DATE: January 20, 2017

REPORT TO: ENGLISHMAN RIVER WATER SERVICE MANAGEMENT BOARD

FROM: ENGLISHMAN RIVER WATER SERVICE MANAGEMENT COMMITTEE

SUBJECT: ENGLISHMAN RIVER WATER SERVICE (ERWS)
PROJECT IMPLEMENTATION, PHASE 6 - CONSTRUCTION SERVICES

PURPOSE: TO AWARD CONTRACT SERVICES FOR CONTRACT 1: INTAKE, WATER
TREATMENT PLANT AND TOP BRIDGE RESERVOIR TRANSMISSION MAIN
& SUPPLY OF MEMBRANE FILTRATION EQUIPMENT

EXECUTIVE SUMMARY:

The current phase (Phase 5 - Tendering) for the future water intake, water treatment plant and Top Bridge Reservoir transmission main is now complete. The next phase of this significant community project is construction. Once this project is complete, the community's water system will ensure high quality safe water that will exceed Canadian Drinking Water Guidelines and will be sized to handle water demands for future generations. This project has been many years in planning and started with the completion of the Arrowsmith Lake Dam.

The ERWS Management Committee request the ERWS Management Board to award Contract 1: Intake, Water Treatment Plant and Top Bridge Reservoir Transmission Main to Knappett Projects Inc. in the amount of \$21,181,194 (plus GST) and authorize staff to award the supply of membrane filtration equipment to H2O Innovations, in the amount of \$ \$ 3,720,298 (plus GST).

Should the ERWS Board award the tender at this meeting, construction work would begin in approximately four to six weeks. It is expected that the first stage of construction will primarily involve excavation within the City of Parksville Operations Yard and trenching for underground utility construction. The expectation is that the project will be completed by the summer of 2018. The construction formal schedule will be confirmed at the construction kickoff meeting.

The Contractor, construction manager, and staff will endeavor to minimize construction impacts and keep the project on time and on budget.

RECOMMENDATION(S):

1. THAT the report from the Englishman River Water Service Management Committee dated January 20, 2017 entitled ERWS Project Implementation, Phase 6 - Construction Services be received;
2. THAT staff be authorized to award Contract 1: Intake, Water Treatment Plant and Transmission Main to Top Bridge Reservoir to Knappett Projects Inc., in the amount of \$ 21,181,194 (plus GST),
3. THAT staff be authorized to award the supply of membrane filtration equipment to H2O Innovations, in the amount of \$ \$ 3,720,298 (plus GST),
4. THAT staff be directed to further engage and negotiate construction services work with CH2M Hill for the project providing satisfactory performance of CH2M Hill providing sufficient funds are available in the identified Financial Plan,
5. THAT staff be directed to manage the project with identified contingencies and entertain optional contract items as required providing they are within sufficient budgets identified in the Financial Plan.

BACKGROUND:

On October 22, 2015 three proposals were received in response to the Request for Proposals (RFP) to furnish a 16 ML/d membrane filtration system for the Englishman River Water Service. Proposals were received from the following three pre-qualified membrane filtration suppliers:

- GE Water and Process Technologies (GE)
- H2O Innovations (H2O)
- Pall Corporation (PALL)

The proposals were evaluated based on technical criteria and present worth life cycle costs factors including technical services / support, lifecycle value, expected performance, system flexibility and overall proposal submission. The proposals submittals were evaluated by staff from the City of Parksville, the Regional District of Nanaimo and CH2M Hill. The below are the resulting proposal scores after review:

Membrane Filtration Vendor	Total Score (out of 100)
GE Water and Process Technologies (GE)	84.37
H2O Innovations (H2O)	95.82
Pall Corporation (PALL)	79.96

The summary of cost evaluation resulted in the following:

Membrane Filtration Vendor	Contract Value
GE Water and Process Technologies (GE)	\$ 4,973,500
H2O Innovations (H2O)	\$ 3,567,422
Pall Corporation (PALL)	\$ 4,655,427

Based on the results of the evaluation, CH2M Hill recommended ERWS enter into an agreement with H2O Innovations from Quebec City to supply the membrane filtration system for the ERWS water treatment plant. In order to proceed to the next phase of the project, it was required that the membrane equipment supplier work alongside CH2M Hill in an effort to advance the project to full detailed design and tender. H2O was provided with a Purchase Order of \$ 329,525 (excluding taxes) for design services as per previous advance direction from the ERWS Board on July 30, 2015.

During the course of the detailed design additional items for water treatment were encountered such as secondary treatment for the primary membranes and additional centrifugal equipment for sand separation. As a result, the following amount is required for the supply of membrane filtration equipment from H2O Innovations:

Item	Amount
Original Contract Value:	\$ 3,567,422
Less Detailed Design Services:	-\$ 329,525
Changes for Sand Handling and Accessories:	\$ 14,048
Addition of Secondary Treatment:	\$ 224,969
Sub-Total:	\$ 3,476,914
PST (7%)	\$ 243,384
Total (less GST):	\$ 3,720,298

Pre-qualifications for general contractors for Contract 1: Intake, Water Treatment Plant and Transmission Main to Top Bridge Reservoir and Contract 2: Springwood Transmission Main were advertised through a Request for Qualifications in August 2016. After technical evaluation based on previous experience, resources, project management and relative project size and bonding capabilities, the following general contractors were notified on October 11, 2016 and selected to bid on the following ERWS contracts:

Contract 1: Intake, Water Treatment Plant and Transmission Main to Top Bridge Reservoir

- Kenaidan Contracting Ltd.
- Knappett Projects Inc.
- Maple Reinders Inc.
- NAC Constructors Ltd.

Contract 2: Springwood Reservoir Transmission Main

- Copcan Civil Ltd.
- IDL Projects Inc.
- Knappett (2006) Industries Ltd.
- Pedre Contractors Ltd.

To date we are still working through final specifications, design detail and permitting requirements from the Island Corridor Foundation and expect the tender start of Contract 2 to be out in early February of 2017.

The tender period for Contract 1 started on October 26, 2016, and a mandatory site meeting was held on November 3, 2016. A total of 10 addenda were issued during the tender period to clarify items in the tender document and it closed on January 12, 2017 at 2:00pm PST. Three bids were received and the total tender price including all adjustments, provisional items, optional items and cash allowances are summarized below:

Prequalified General Contractor Bidder	Contract 1: Total Base Bid (less GST)
Kenaidan Contracting Ltd.	\$ 24,700,000
Knappett Project Inc.	\$ 21,181,194
Maple Reinders Inc.	\$ 22,341,565

All three bids fulfilled the mandatory Tender Call submission requirements and contract compliance. Following an initial review it has been determined bids are competitive and indicate the lowest bid represents the best current market value of the work. After a thorough review of all bids to ensure and analysis of any calculation errors with Contract 1 specifications, it is recommended that we accept the low bid from Knappett Projects Inc. of \$ 21,181,194 (plus GST).

OPTIONS:

1. Accept all bids received; authorize staff to award the construction contract for Contract 1: Intake, Water Treatment Plant and Transmission Main to Top Bridge Reservoir, in the amount of \$21,181,194 (plus GST) to Knappett Projects Inc. and authorize staff to award the supply of membrane filtration equipment to H2O Innovations, in the amount of \$ \$ 3,720,298 (plus GST).

2. Reject all bids and/or provide alternative direction to staff.

ANALYSIS:

Option 1.

The lowest bid, submitted by Knappett Projects Inc., is complete and responsive. They are a reputable and qualified Vancouver Island Contractor with prior success on larger scale projects. Acceptance would allow the construction contract to be executed and construction of this high priority project to proceed at the earliest possible date. This would allow the construction phase to proceed and be in compliance with Vancouver Island Health's Operating Conditions and provide cost savings to the tax payer.

Option 2.

This will further delay the project and the risk would be Island Health's willingness to amend the current Operating Conditions for treatment. This would require stringent watering restrictions for the summer of 2018 as projected demand will have exceeded supply of the old system and additional contingencies will need to be implemented.

FINANCIAL IMPACT:

Accepting the low bid from Knappett Projects Inc. for Contract 1 and the supply of membrane filtration equipment from H2O Innovation would result in a total project costs for the intake, water treatment plant and Top Bridge Reservoir transmission main of: \$ 24,901,492. Additional costs will be required for construction services, potential changes, entertaining optional items and permit fees, however it is expected that all costs would be within the ERWS 2017 - 2021 Financial Plan budget of \$ 26,800,000.

Additional revenue funding sources for a total eligible cost amount of: \$7,304,974 may also be available through a grant application submitted to the Clean Water and Wastewater Fund in November 2016. However, announcements of such grant awards are not expected until April of this year.

REFERENCES:

July 30, 2015 report from Englishman River Water Service Management Committee regarding ERWS Project Implementation Strategy

November 1, 2016 report from Englishman River Water Service Management Committee regarding ERWS 2017 - 2021 Financial Plan