



**REPORT TO REGIONAL WATER SUPPLY COMMISSION
MEETING OF WEDNESDAY, 20 MAY 2009**

SUBJECT AWARD OF CONTRACT FOR RELINING OF THE LOW LEVEL PIPE AT JAPAN GULCH DAM

PURPOSE

The purpose of this report is to recommend the award of the contract for relining the low level pipe at Japan Gulch Reservoir.

BACKGROUND

Japan Gulch Reservoir currently is typically used as an alternate intake when water supply is being sourced from the Goldstream Reservoirs. The Japan Gulch Dam and low level pipe were originally constructed in the early 1900's. The dam was upgraded to meet current seismic standards in 1995. Leakage in the vicinity of Japan Gulch Dam was first noticed in 2002 and it was confirmed that the low level pipe was leaking in 2006.

Leakage from a pipe within a dam could lead eventually to dam failure. The pipe that is leaking is 760 mm diameter unlined and uncoated steel. The contract to line the pipe with epoxy will give it structural integrity and seal the leak. The lining of the pipe is accomplished by inserting a felt sock impregnated with epoxy into the pipe and inflating it with hot water so that it is forced against the interior of the pipe. The hot water helps in the curing of the epoxy.

The lining of the pipe was first tendered in 2008 and there were no bids. In 2009, the consultant, Genivar, met with the only two contractors in Western Canada capable of undertaking the work to discuss the project with them and encourage them to bid. The work was tendered in April 2009 and one bid was received from Michels Canada Co. in the amount of \$424,700.85 (including GST). Michels noted in their bid that a savings of \$112,350 (including GST) could be realized if the design criteria were altered, as noted below.

ALTERNATIVES

Alternative 1. Do not award the contract

Alternative 2. Award the contract for the Relining of the Low Level Pipe at Japan Gulch Reservoir to Michels Canada Co. in the amount of \$259,350 (including GST).

FINANCIAL IMPLICATIONS

Alternative 1. If the work is not done, water leaking from the low level pipe through the dam could ultimately cause a failure of the dam, causing potential loss of life downstream and eliminating the backup regional water supply.

Alternative 2. The consultant discussed the suggested change in design criteria with Michels and Capital Regional District (CRD) Water Services and it was agreed to alter the design criteria, such that a savings of \$165,350.85 (including GST) was offered by Michels. The structural loading on the lining was lowered by ensuring that the inlet valve was always open, thus internal water pressure in the pipe counteracted water pressure on the outside of the pipe. This results in a total contract value of \$259,350 (including GST), which compares with the consultant's estimate of \$202,000 made in 2008.

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The total cost of proceeding with this project is estimated as follows:

Construction Contract	\$259,350
Consultant's costs for design & construction supervision	\$ 18,375
Fisheries Biologist (for permitting and previous work)	\$ 9,000
CRD costs	<u>\$ 6,000</u>
TOTAL	\$292,725
Remaining 2009 budget	<u>\$173,000</u>
Additional funding required	\$119,725

The budget exceedence for the project can be funded within the 2009 Capital Budget.

The consultant's construction supervision costs are based on the contractor's work being completed in 4 days. If the work takes longer than 4 days, the consultant's expenses will be increased accordingly.

RECOMMENDATION

That the Regional Water Supply Commission award the contract for the Relining of the Low Level Pipe at Japan Gulch Reservoir to Michels Canada Co. in the amount of \$259,350 (including GST).

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Concurrence