

Ref: GL 16-03-23 ACS Q000225

23 March 2016

Capital Works Engineer
Queenstown Lakes District Council
Private Bag 50072
10 Gorge Road
QUEENSTOWN

Attention: Rob Darby

Dear Rob

Wanaka Water Supply Upgrade Projects – Cost Estimates

Further to our email to you dated 16 March 2016 please find a formal letter providing an Engineer's Estimate for the physical works related to the two Wanaka Water Supply Upgrade projects. Furthermore, as requested, please also find a further reduced cost estimate derived following the removal of several items to try and bring the cost of the upgrades down.

1.0 Original Estimate

The original cost estimate attached to this letter was prepared based on the draft tender drawings and specifications prepared and submitted to you in mid February 2016. Please note that the estimates allow for 10% P&G and a further 10% for contingencies.

The cost estimate (excluding GST) is summarised below:

Wanaka Yacht Club Site	\$1,015,000
MAR Booster Site	<u>\$567,000</u>
Total Cost Estimate	\$1,582,000

2.0 Reduced Scope Estimate

The original design and drawings and hence the original estimate was prepared taking into consideration allowance for future extensions to the schemes and to provide a level of redundancy where considered necessary. For the Reduced Scope Estimate (attached to this letter) the extent of the originally proposed works was revisited and several items removed as noted below. The reduced scope will still be able to meet the NZ Drinking Water

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Standards, however extensions to the schemes will be slightly more expensive in the future and there will no longer be the ability to provide standby UV disinfection if the one UV unit goes down for any reason: . the plant will need to shut down until the UV unit is bought back on line.

The items removed for the reduced scope are as follows:

Wanaka Yacht Club Site

- 2 No. 300 dia. gate valves to connect future bores
- Static Mixer for the Chlorine addition, (please note that without this the control of the chlorine dosing will not be as accurate).
- Pressure transducer to allow the delivery pressure of the bore pump to be monitored irrespective of how many bore pumps are operating.
- One UV reactor and support frame and associated SS pipework, flowmeter and valving.
- One sodium hypo storage tank and associated piping.
- Electrical and controls works associated with removal of the UV reactor and associated flowmeter including a reduction in the number of PLC I/O cards.
- Electrical switchgear and harmonic filter associated with the 2 future bore pumps.

MAR Booster Site

- 2 No. pressure transducers related to the future larger pumps side of the booster pump manifold.
- 2 No. flowmeters and chambers on the 150mm dia. pipelines located outside the pumping station building.
- Preliminary electrical and controls works associated with the future booster pumps including a reduction in the number of PLC I/O cards.

The reduced scope cost estimate (excluding GST) attached to this letter is summarised below:

Wanaka Yacht Club Site	\$833,000
MAR Booster Site	<u>\$536,000</u>
Total Cost Estimate	\$1,369,000

This represents an estimated cost saving of **\$213,000 + GST** but does reduce the level of service especially for the Wanaka Yacht Club site and future works will be more expensive to incorporate future extensions to the schemes.

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If you have any questions please do not hesitate in contacting us.

Yours faithfully

FLUENT INFRASTRUCTURE SOLUTIONS LTD

Per:



Anthony Steel
Senior Infrastructure Engineer

Enclosure:

- » Original Design Engineers Cost Estimate
- » Reduced Scope Design Engineers Cost Estimate