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Agenda Item 6
REPORT RWSC 2013-06

**REPORT TO CRD REGIONAL WATER SUPPLY COMMISSION
MEETING OF WEDNESDAY, APRIL 17, 2013**

**SUBJECT DEVELOPMENT OF DIGITAL FORMS TO TRACK CROSS CONNECTION
CONTROL COMPLIANCE**

ISSUE

The requirement of additional capital funding for the development of digital forms for the Cross Connection Control (CCC) Program.

BACKGROUND

The CRD CCC Program protects public health against the possibility of contamination by removing or isolating sources of contamination that may backflow into the Greater Victoria Drinking Water System.

The CCC Program operates under the umbrella of CRD CCC Bylaw No. 3516. The Bylaw applies to the seven water suppliers (CRD, Central Saanich, North Saanich, Oak Bay, Saanich, Sidney, and Victoria) within the Greater Victoria Drinking Water System. The CCC Program is funded through the CRD Regional Water Supply operations budget.

To protect the public water system against possible contamination, backflow prevention devices (BPDs) are installed between the public water system and private systems. BPDs automatically close a valve during low pressure events and will not allow contaminated water to flow backwards into the public water system. BPDs require annual testing by certified testers to ensure they are functioning properly. Test results are sent to the CRD and entered into a database.

Since 2005, the number of BPDs tracked by the database has increased from approximately 3,000 devices to more than 15,000 devices. The increase in the number of devices tracked places a continuing strain on limited staff resources to enter the test result data in a timely manner and has generated a substantial backlog. It increases the risk of contaminating the public drinking water system by impeding the program's ability to:

- ensure that devices are being tested in the appropriate time frame,
- detect failed devices in a timely manner,
- ensure that the testers' credentials meet the requirements, and
- follow up on inaccurate or unusual test results.

In June 2012, staff investigated potential solutions for reducing the current data entry backlog and allow the program to remain current in the face of the expanding number of devices. It was determined that digital forms were a valid solution. This would require all testers to submit their test results electronically using the digital form. Based on preliminary discussions with internal information technology (IT) staff, \$20,000 in capital funding was allocated for 2013 to develop digital forms.

In late 2012, CCC and IT staff initiated an in-depth requirements analysis for the development of digital forms and estimated the total cost at \$77,540. With \$20,000 in capital funding already approved in 2013, this would leave a deficit of \$57,540 to complete the development work.

ALTERNATIVES

That the Regional Water Supply Commission:

1. approve additional capital funding of \$57,540 for the development of digital forms to collect backflow prevention device test results electronically.
2. not approve the additional capital funding of \$57,540 for the development of digital forms at this time.

ECONOMIC IMPLICATIONS

Costs incurred for the development of digital forms will be paid back within two years based on offsetting the overtime and auxiliary wage costs that are currently being incurred with subsequent long-term savings.

A preliminary quote for this project from an external IT consultant to develop these forms was \$100,000 (not including project management and implementation).

To complete the development of the CCC digital forms, additional capital funding of \$57,540 will be made available from capital funds that were unspent in 2012 and carried forward into the 2013 capital budget.

OPERATIONAL IMPLICATIONS

The implementation of digital forms will significantly increase CRD staff efficiency and reduce future backlog of data entry by:

- prompting and guiding backflow preventer testers and facility owners to submit accurate reports.
- limiting access to and notifying backflow preventer testers whose certification is no longer valid.
- validating the data in the forms automatically.

CONCLUSION

The implementation of digital forms will help ensure that:

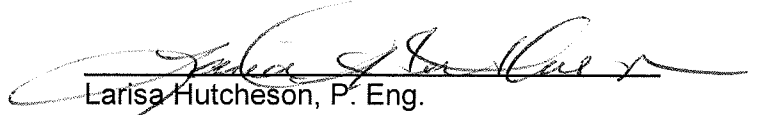
- Cross Connection Control data are collected in a timely manner to protect the Greater Victoria Drinking Water System.
- Cross Connection Control Program delivery of services remains within allocated financial resources.

RECOMMENDATION

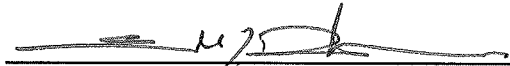
That the Regional Water Supply Commission approve additional capital funding of \$57,540 for the development of digital forms to collect backflow prevention device test results electronically.



Heidi Gibson, M.N.R.M.
Senior Manager, Environmental Partnerships



Larisa Hutcheson, P. Eng.
General Manager
Parks & Environmental Services
Concurrence



Ted Robbins, B.Sc., C.Tech.
General Manager, Integrated Water Services
Concurrence

HG:fp:mm