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Agenda Item #4

REPORT TO ELECTORAL AREA SERVICES COMMITTEE
MEETING OF WEDNESDAY, 07 MAY 2008

SUBJECT **SOUTHERN GULF ISLANDS COMMUNITY WORKS FUND**

PURPOSE

To present for the approval of the Electoral Area Services committee a Community Works Fund (CWF) project to expend funds for a water metering upgrade program to the benefit of the Magic Lake Estates, Skana, Surfside, Sticks Allison and Lyall Harbour Boot Cove water systems, all located within the Southern Gulf Islands Electoral Area.

BACKGROUND

In February, 2005 the federal government announced the allocation of funds to the province of British Columbia for its share of the federal gas tax. The funding was to complement and not replace existing federal infrastructure programs.

The Union of British Columbia Municipalities (UBCM), representing local government in BC, entered into an agreement with Canada and British Columbia to transfer a portion of the federal gas tax funds to local government by establishing a CWF. The Capital Regional District (CRD), on behalf of the electoral areas, signed a CWF Agreement.

The electoral area director for the Southern Gulf Islands has requested that funding for a project to enable more accurate and expedient detection of water losses from community water systems be provided from the gas tax funds allocated for the electoral area of Southern Gulf Islands. Water conservation is becoming a high priority for residents of the Southern Gulf Islands. Water losses from some small water systems approach 60 per cent of the total daily production. The most important tool for the CRD to implement a water conservation program for its various water utilities is the household water meter installed on each service line to a property. Data from the meter, if collected frequently, allows for the location and early correction of leaks on household property services and allows for larger water leaks on the main system to also be identified.

The cost of manual water meter reading has escalated with rising costs for manpower and fuel resulting in pressure on the water purveyor to reduce the frequency of collecting the data. This process is counterproductive to water conservation as problems go unresolved for longer periods of time. Manual reading of meters inevitably results in some transcription errors, resulting in the need for operators to consume additional fuel and time to return to the site to obtain correct data and adding further costs to the utility. Numerous water purveyors have now recognized the benefit of automating the meter reading process. Automation of the meter reading process benefits the water district by reducing the unit cost of meter reading enabling the utility to increase the frequency of meter readings, providing more reliable data through elimination of errors and ultimately reducing the volume of water lost through leakage by earlier detection and correction.

The project provides for purchase of the additional components necessary to automate the data collection process. Where meters are not compatible with the new system, the project also provides for replacement of the units. Each meter will receive a small all weather radio transmitter which will transmit the meter register reading by radio frequency (RF) to a vehicle mounted transceiver. The project includes purchase and programming of the transceiver which will tabulate the meter readings from the water meters as a vehicle drives past the address. All meters and RF transmitters will be owned by the CRD through the various CRD water services in place. The transceiver will be owned as part of the CRD Environmental Services Operations division and be provided to each utility on a scheduled basis for collection of the data. Operations staff will evaluate the

data and identify elevated consumption or usage and contact the owner of the property to investigate and make repairs.

The equipment is proposed to be purchased as one package in 2008, distributed to the various water utilities for installation by the various water services commencing this summer until complete, likely in the summer of 2009.

The components of the program, and the purchase cost, are identified in the attached project definition statement.

ALTERNATIVES

1. That the committee recommend to the CRD Board approval of expenditure of funds from the Federal Gas Tax fund in the estimated amount of $265,700 for purchase of water metering equipment to be installed in a number of CRD water services in the Southern Gulf Islands in 2008 and 2009.

2. That the committee not support the request for funds for this project and instead request staff identify alternate projects which meet the requirements of the CWF agreement which the committee could consider as an alternate to this project.

FINANCIAL IMPLICATIONS

There are sufficient gas tax funds on hand or anticipated to be received in 2008 to meet the intended obligation.

SUMMARY/CONCLUSIONS

The gas tax funds are scheduled to be received through 2014. It has proven to be very challenging to find eligible capital projects in the Southern Gulf Islands that meet the requirements of the CWF Agreement. The water meter supply and automation project meets the criteria and will provide a system which will enable significant reductions in water losses and will enhance water conservation for a number of CRD water districts and can be expanded to other water districts on the Southern Gulf Islands as they transfer to the CRD.

RECOMMENDATION

That the Electoral Area Services committee recommend to the Capital Regional District Board approval of expenditure of funds from the Federal Gas Tax fund in the estimated amount of $265,700 for purchase of water metering equipment to be installed in a number of CRD water services in the Southern Gulf Islands in 2008 and 2009.

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Concurrence

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GH:ls
Attachment: 1

COMMUNITY WORKS FUNDING TO AUTOMATE WATER METERING SYSTEMS INSTALLED ON CRD WATER SYSTEMS IN THE SOUTHERN GULF ISLANDS ELECTORAL AREA – PROJECT DEFINITION

Scope and Definition

The Capital Regional District (CRD) owns and operates the Magic Lake Estates, Skana, Surfside, Sticks Allison and Lyall Harbour water services on the Southern Gulf Islands. The CRD has been focusing on implementation of a water conservation strategy through the installation of individual household water meters on all of its water systems. The data from the meters is used to identify household losses and excessive use. On one system currently being converted to metered services, losses from the system are estimated to consume between 40 per cent and 60 per cent of the total daily usage. Significant increases in costs for staff to read and record data, costs for transfer of readings to electronic format, costs for staff time and fuel to revisit sites where errors in readings are made contribute to pressure to reduce the frequency of reading water meters in each utility which is detrimental to the success of the program.

This project proposes to provide the necessary equipment to allow each household water meter register to be read remotely by radio frequency (RF) signal. Installation of the system will greatly reduce costs presently associated with manual data collection now practiced and will allow for increased frequency of leak detection, and reduced volume of water lost. The project includes purchase of RF sending units for each individual meter, an RF receiver and data recorder and upgrade of some primary metering devices which are not compatible with the new system.

Multi System Use

The proposed transceiver equipment, which enables the collection and tabulation of the data, will be maintained as an asset of the Operations and Local Services division and will be available for transport to any of the Southern Gulf Islands to pick up the necessary readings on a scheduled or as available basis.

Costs

The table following provides a summary of key cost elements for the program:

Year	Description	Unit Cost	Number of Units	Total Cost
2008	Individual meter RF unit	$123	1400	$172,200
2008	RF Transceiver Equipment	$38,500	1	$38,500
2008	Replace non compatible meters	$500	110	$55,000
2008	Total			$265,700

Estimated total cost expenditures for 2008 total $265,700. Cost for installation of the equipment will be borne by the individual water service and will be undertaken in 2008 and 2009.

Participants Cost

Each water local service area will be responsible for the costs of the installation of the individual metering devices. Meter installation is proposed to commence in Magic Lake Estates water in 2008 and be completed in 2009. Metering of Skana, Surfside and Sticks Allison is complete. Sticks Allison is upgrading meters commencing in 2008 and Lyall Harbour meters will be installed commencing in 2009.

Reporting

The project will comply with the requirements of the Annual Expenditure Reports, the Outcome Reports and Audit Reports as required by the Community Works Fund Agreement. The reporting will be undertaken by CRD.