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**REPORT TO STICKS ALLISON WATER LOCAL SERVICE COMMITTEE
ANNUAL GENERAL MEETING OF SATURDAY, 23 AUGUST 2008**

**SUBJECT SOUTHERN GULF ISLANDS COMMUNITY WORKS FUND – ANNOUNCEMENT OF
EXPENDITURES FOR WATER METERING EQUIPMENT**

PURPOSE

To present for the information of the Sticks Allison Water Local Service committee, a Community Works Fund (CWF) project to expend funds for upgrading and automating the water metering system.

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.

Proposed CWF Project

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 the supply of replacement 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

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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 water services commencing this summer until complete, likely in the summer of 2009.

The program for Sticks Allison water system is proposed as follows

| | |
|--|-----------------|
| Purchase of 38 radio read units + Transceiver cost * | \$12,374 |
| Towards purchase of additional metering devices | <u>\$17,500</u> |
| Total Program Cost | \$29,874 |

* Note. The Transceiver equipment will be shared by all Southern Gulf Islands CRD services and will be made available to Mayne Island on an as required basis.

ALTERNATIVES

There have been few alternative proposals put forward which meet the requirements of the CWF program. An alternative program to expend funds on subsidizing low flush toilets, previously suggested as a good water conservation program for the islands, did not meet the criteria of the program.

FINANCIAL IMPLICATIONS

The installation of the equipment into the meter boxes will be a one time cost to the utility however staff will fit the devices to the meter lids in Victoria and swap the lids only on island. This work can be undertaken at the time of the next manual meter reading which will largely eliminate any additional cost to the water service. At the present time the contract operator reads the meters quarterly.

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. This program will benefit a total of 1400 water users on the islands of North Pender, Galiano, Saturna and Mayne.

RECOMMENDATION

That the Sticks Allison Water Local Service committee receive this report for information.



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