



Making a difference...together

**SURFSIDE PARK ESTATES WATER SERVICE COMMITTEE  
2008-2009 OPERATIONS REPORT  
MAY 30, 2009**

The following is provided for information to residents and users of the Surfside Park Estates water service.

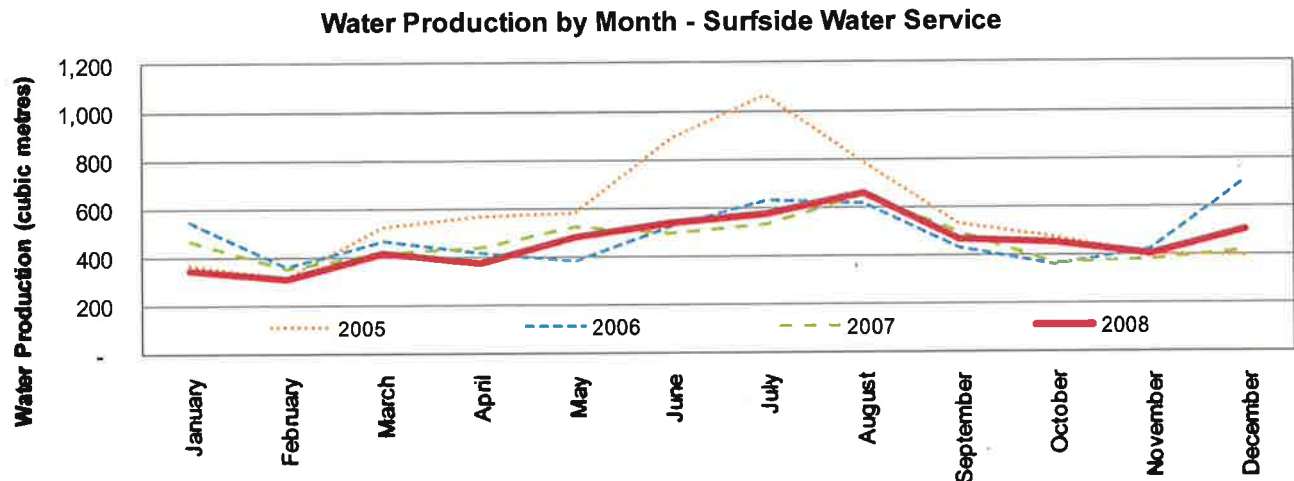
**Operations and Capital Upgrades**

The Surfside water system has operated reliably in the past year. Aside from routine operation and maintenance by Capital Regional District (CRD) contract operator Jean Beaudet, work on the system has consisted of improvements to the pumphouse, repairs to the storage reservoirs, and various work on service connections. In response to a safety inspection by operations staff, the roof on the well pumphouse was replaced in fall 2008. The foundations of the two elevated storage tanks were levelled and the tanks were fitted with flexible connections to reduce the risk of breakage due to settlement. A service connection was completed at one property in 2008, with costs recovered through a connection charge of \$2,750. It is anticipated that the arsenic absorption media will be replaced in the summer of 2009.

**Water Supply and Demand**

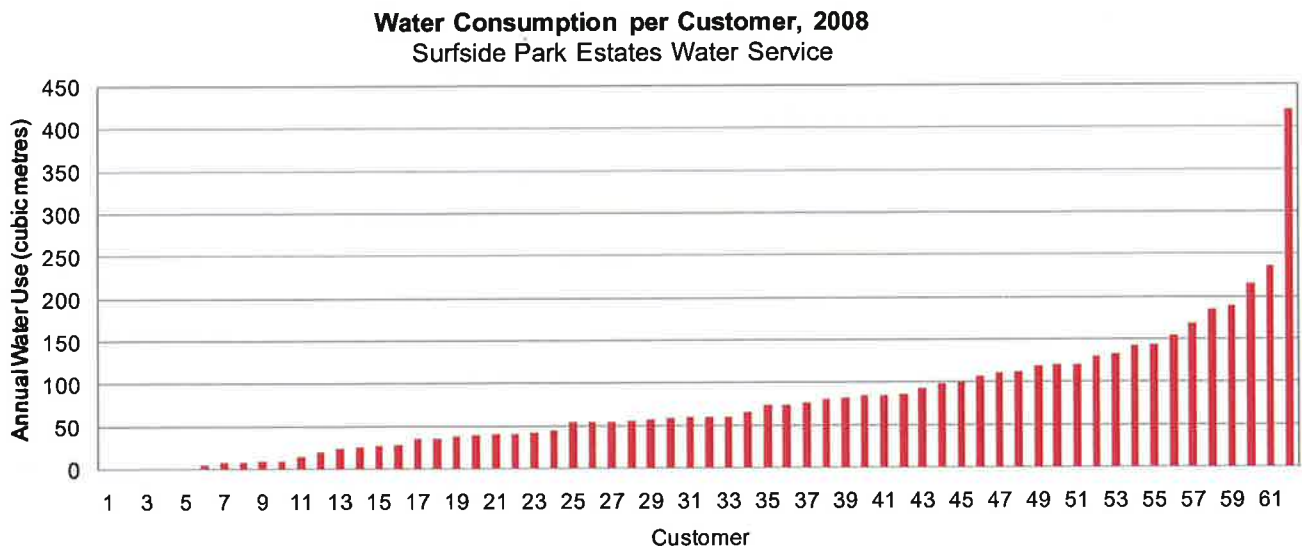
A total of 5,502 cubic metres (m<sup>3</sup>) of water was abstracted from the Surfside well in 2008, nearly identical to 2007. Water production by month is shown in Figure 1. Total water demand in the Surfside service area in 2008 was 4,826 m<sup>3</sup> based on metered usage. The difference between measured water supply and demand, called non-revenue water, is partly related to the water requirement to backwash filters (estimated to be 170 m<sup>3</sup>/year), with the remainder likely associated primarily with leakage losses in the distribution system (perhaps 9% of total well production). While this level of leakage is lower than most surface water systems in the Gulf Islands and is in the range of what is normally considered acceptable for a water distribution system, it is greater than other groundwater source systems operated by the CRD in the Gulf Islands. Some of this difference may also be associated with unmetered water uses including distribution system maintenance.

Figure 1. Water Consumption 2005-present



Water demand per average household in the Surfside system is estimated to have been 78 m<sup>3</sup> in 2008, which is lower than most other groundwater systems in the Gulf Islands, and roughly one-third of that of a typical surface water system in the Islands. As shown in Figure 2, there is a range of annual usage in the service area, reflecting that several dwellings are unoccupied for a significant portion of the year. However, even the highest users in the Surfside area would be considered close to average in Greater Victoria, and only marginally higher water users than an average customer of a water system with a surface water source on Salt Spring Island.

Figure 2. Water Consumption per Customer



### Water Quality

The CRD contractor carries out an annual sampling program including programmed testing of bacterial indicators, an annual sample for metals and an annual sample for disinfection by-products. Unlike a surface water source such as a creek or lake, groundwater sources are generally less variable from season to season. Bacteria are detected from time to time in the source water. A large increase in bacteria, often following a major weather event, indicates contamination of the aquifer that is often caused by inadequate sealing of a well allowing surface drainage to enter the casing. The risk of aquifer contamination is the primary reason disinfection is provided.

Non-coliform or background bacteria are also present within the water main system. While these bacteria are not harmful to human health, when present in large numbers they have the potential to obscure other, more harmful bacteria in samples and cause errors in detection at the lab. For this reason, a maximum non coliform bacteria count of 200 colony forming units (CFU) per 100 ml is a guideline the CRD strives to maintain. A residual concentration of chlorine is maintained in the system for this purpose. A periodic count may turn up in a section of main, especially one with very little usage. The operator flushes that portion of the main to re-establish the disinfection residual and a re-test is done to confirm results. Water in the Surfside area is also treated using an absorptive media to remove naturally occurring arsenic from the groundwater source. This treatment reduces arsenic well below the maximum limit considered safe for drinking water:

Canadian Drinking Water Guidelines	10 µg/litre *
Levels of arsenic in the untreated well water, typical	49µg/litre
Levels of arsenic in the treated water from the new plant	0.7µg/l – 4.5µg/l

\* Notes

- 1) The Drinking Water Guideline for arsenic was reduced in 2007 from 25 to 10 µg/l to match the US EPA standard and the World Health standard.
- 2) µg/litre = micrograms per litre

Water delivered to the Surfside service area typically meets the guidelines set out in the *Canadian Drinking Water Guidelines (CDWG)*, and the requirements of the *British Columbia Drinking Water Protection Act and Regulation* as administered by the Vancouver Island Health Authority (VIHA).

### Annual Operating Budget

Attached is a copy of the *Statement of Financial Activities* as prepared by the CRD Finance and Corporate Services for the year 2008. The statement provides an overview of the revenues and expenditures for the year. Revenues are generated primarily through parcel taxes and user fees (fixed and variable based on water use), and small amounts for interest on savings and miscellaneous revenue such as late payment charges.

Expenditures include all costs to administer the service. General government services are charges levied by CRD Corporate Services for the financial processing of the budget and collection of fees and charges. Other includes all expenses needed for the operation of the service including all CRD labour costs for day to day operations, CRD service personnel hours performing maintenance and repairs, chemicals, electricity, water testing costs, maintenance parts allowances for electrical and mechanical equipment, rental or equipment as necessary and allowances for technical and staff support to the committee, and for the payment of debt.

The difference between revenue and expense is added to any surplus or deficit carried forward from the prior year. If there is a significant surplus, funds may be transferred to a reserve or capital project account. The surplus or deficit balance after any transfers is carried to the following year. CRD services are not permitted to plan to carry forward a deficit, so a deficit in a given year usually requires a tax or fee increase in the following year to recover costs and prevent a subsequent deficit.

The Surfside 2008 revenue of \$80,216 includes \$25,794 parcel tax and \$50,574 user fees. The "other" revenue is primarily connection charges. The total expenditures for 2008 were \$84,265, of which \$26,022 is the annual cost of borrowing for capital work, and the remainder is the cost of operation and administration of the service. Operating costs for Surfside were elevated in 2008 due to unexpected illness of the operator, which required CRD staff from Vancouver Island to operate the system temporarily at increased cost.

The difference between revenue and expenditures in 2008 amounted to a net expenditure of \$4,049 at year end. This amount was reduced by the surplus of \$1,999 carried forward from 2007, leaving a deficit of \$2,050 carried forward to 2009. The current balance in the reserve fund is \$18,053, and the balance in the capital project fund is approximately \$17,000. Staff will work with the committee this year to determine priorities for capital improvements.

In light of the operating shortfall in 2008, the parcel tax for Surfside was raised by \$52 to \$306 for 2009, thereby increasing total revenue by \$5,315.

**Water System Problems - Who to Call**

To report any event or to leave a message for the Surfside Water Operator, Mr. Jean Beaudet:

**First Call: 539-3300**

**If you do not reach someone at 539-3300, please report emergency events directly to:**

**1-250-388-6275 and ask for pager 2614**

When connected to the pager message system, please leave your name, your phone number, a brief description of the problem and that the problem is with the **Surfside** water system. Expect a phone call from a CRD duty operator within a short time.

CS:ls

Attachments: 1

## CAPITAL REGIONAL DISTRICT

### WATER REVENUE FUND STATEMENT OF FINANCIAL ACTIVITIES (UNAUDITED) For the year ended December 31, 2008

	Surfside Water Supply
<b>REVENUES</b>	
Transfers from government	25,794
Sale of services	50,574
Other revenue from own sources:	
Interest earnings	167
Other revenue	3,646
Grants in lieu of taxes	35
	<hr/>
	80,216
<b>EXPENDITURES</b>	
General government services	2,920
Grants in aid	-
Other	81,066
Salaries and wages	-
Other fiscal services	279
Recovery	-
	<hr/>
	84,265
<b>NET REVENUES</b>	
<b>(EXPENDITURES)</b>	(4,049)
Transfers to own funds:	
Water Capital Fund	-
Reserve Funds	-
Equipment Replacement Fund	-
Transfers from own funds:	
Reserve Funds	-
	<hr/>
	-
<b>CHANGE IN FUND BALANCE</b>	(4,049)
Opening balance	1,999
<b>CLOSING BALANCE</b>	<hr/> <b>(2,050)</b>