

# REPORT TO CEDAR LANE WATER SERVICE COMMISSION MEETING OF TUESDAY 20 JANUARY 2009

SUBJECT

AMENDMENT OF BYLAW NO. 3512, "CEDAR LANE WATER SERVICE AREA FEE AND CHARGE BYLAW NO. 1, 2008"

## **PURPOSE**

To present for the consideration of the Cedar Lane Water Service Commission (CLWSC) recommended amendments to Bylaw No. 3512, Cedar Lane Water Service Area Fee and Charge Bylaw.

## **BACKGROUND**

In April 2008, the Cedar Lane Water Service Commission recommended to the Capital Regional District (CRD) Board adoption of Bylaw No. 3512 (Attachment 1), which sets out the method by which to recover the cost of operating the drinking water system. During debate of the 2009 operating budget there were a number of questions and concerns raised respecting the formula and rates charged under the bylaw. CRD staff agreed to host a separate meeting with the commission to review the intent of the bylaw, to clarify charges levied under the bylaw and to review options with the commission to amend the bylaw. The commission met on 24 November 2008 to consider several options.

In discussion at the November meeting, the commission expressed specific concern regarding the use of the single-family dwelling unit (SFDU) as a basis for the fixed annual charge and consumption charge structure. Bylaw No. 3512 establishes a SFDU as a "self contained room, or suite of rooms containing cooking, sanitary and sleeping facilities, designed for permanent or seasonal human occupancy by one household". This includes a single family house, a unit in a duplex or a fourplex, a basement suite or a seasonal cottage. Occupancy levels are not considered in the determination of a SFDU. Other concerns about the billing structure related to the complexity and lack of clarity about how water charges are calculated. Commission members and residents in attendance placed a high priority on conservation incentives in a billing structure, and stressed the importance of fairness.

Staff agreed to develop a recommended rate structure to address these concerns and values, for consideration by the community. A discussion paper (Attachment 2) was provided to commission members on 14 January 2009 for this purpose, including recommended changes to the fee structure. The recommended changes would be implemented through the following revisions to Schedule "C" of Bylaw No. 3512:

- In Part 2, repeal the definition of a single family dwelling unit.
- Repeal Part 3 and replace with:
  - Fees Payable:
    - (a) User charge per service connection: \$500.00 per year, billed each three months.

# Cedar Lane Water Services Commission – 20 January 2009

Re: Amendment of Bylaw No. 3512

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## (b) Consumption Charge:

The consumption charge for water will be the volume of water metered to each service connection, measured in cubic metres (or other units converted to cubic metres) over a three-month billing period at a rate as follows:

First 37.5 cubic metres or portion \$2.25 per cubic metre
Next 67.5 cubic metres or portion \$8.00 per cubic metre
Greater than 105 cubic metres \$25.00 per cubic metre

Given that changing the billing structure requires amendments to Bylaw No. 3512, the following administrative amendment to Schedule "C" has also been requested by Finance Department staff in order to reduce confusion related to new invoices being issued while the previous invoice is still current:

- In Part 1, repeal (a) and replace with:
  - (a) User fees invoiced by the Capital Regional District are due and payable by the owner of the parcel on presentation. A penalty of 10 percent (10%) will be charged if payment is not made within thirty (30) days of the billing date.

While billing six times per year is considered to be best practice for water conservation, and is consistent with the billing cycle used by CRD Water Services in the West Shore of Greater Victoria, it is uncommon among the CRD local services on Salt Spring Island and the Southern Gulf Islands (the Beddis water service also bills six times per year). Given that water meters on Salt Spring Island must be read manually, and that the billing system currently used for the local services relies on manual data entry and transfer processes, in order to control costs it is necessary in the short term (one to three years) to reduce the number of billing cycles to four per year for Cedar Lane. Within three years it is anticipated that the local services will be converted to radio-read metering and the same utility billing system used by the CRD in the West Shore, dramatically reducing the labour required to read meters and process billing. At such time, the local services may migrate toward a standard billing structure based on six billing cycles per year.

The rate structure recommended in the discussion paper significantly increases the risk of a revenue shortfall by increasing the proportion of revenue based on water consumption, and by significantly increasing the cost of water usage greater than 150 cubic metres per year per service connection. To accommodate a predicted reduction in water use by high users, the recommended structure increases the projected revenue based on 2008 usage by 2.5%. Attachment 1 also includes an alternate billing structure, also based on service connections rather than SFDU, which maintains revenue risk at the same level as the current structure. The recommended structure is significantly more likely than the alternate or current structures to encourage high water users to reduce consumption, potentially reducing the urgency of developing an additional source of water for Cedar Lane.

### **ALTERNATIVES**

- 1. That the Cedar Lane Water Service Commission receive this report for information and recommend that the CRD Board enact the following or equivalent amendments to Schedule "C" of Bylaw No. 3512:
  - In Part 1, repeal (a) and replace with:
    - (a) User fees invoiced by the Capital Regional District are due and payable by the owner of the parcel on presentation. A penalty of ten percent (10%) will be charged if payment is not made within thirty (30) days of the billing date.

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- In Part 2, repeal the definition of a single family dwelling unit.
- Repeal Part 3 and replace with:
  - 3. Fees Payable:
    - (a) User charge per service connection: \$500.00 per year, billed each three months.
    - (b) Consumption Charge:

The consumption charge for water will be the volume of water metered to each service connection, measured in cubic metres (or other units converted to cubic metres) over a three-month billing period at a rate as follows:

First 37.55 cubic metres or portion Next 67.5 cubic metres or portion Greater than 105 cubic metres \$2.25 per cubic metre \$8.00 per cubic metre \$25.00 per cubic metre

- 2. That the Cedar Lane Water Service Commission receive this report for information and recommend that the CRD Board enact amendments to Schedule "C" of Bylaw No. 3512 based on the alternate fee structure included in Attachment 2.
- 3. That the Cedar Lane Water Service Commission receive this report for information.

## FINANCIAL IMPLICATIONS

The general effect of the recommended amendments to Bylaw No. 3512 is that low water users will pay less, high water users will pay significantly more and most service connections serving more than one dwelling will pay significantly less than in 2008. The recommended amendments also increase the risk of a revenue shortfall by increasing the proportion of revenue based on water usage, and by significantly increasing the cost of high water usage. Although the recommended changes nominally result in a 2.5% increase in total user fee revenue based on 2008 usage, it is anticipated that the changes will be revenue neutral in an average year due to reduced consumption. The alternate fee structure would significantly reduce the overall cost to connections serving more than one dwelling, and would slightly increase the cost to connections serving only one dwelling.

## SUMMARY/CONCLUSIONS

Bylaw No. 3512 was approved by the Cedar Lane water service commission in April 2008 to levy the necessary fees and charges required for CRD to operate the service following its conversion from an improvement district. Although in many respects the rate structure was similar to that which had been in use by the improvement district, the addition of a fixed fee and the use of the SFDU as a basis for the fee structure resulted in some changes that were not anticipated or desired by residents. The commission, at the 2009 budget meeting, wished to consider other options to apportion fees. This report presents recommended changes that are intended to address concerns raised by residents about the existing structure, and to uphold the values of fairness, clarity, simplicity and incentive to conserve water.

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## RECOMMENDATION

That the Cedar Lane Water Service Commission receive this report for information and recommend that the CRD Board enact the following amendments to Schedule "C" of Bylaw No. 3512:

- In Part 1, repeal (a) and replace with:
- (a) User fees invoiced by the Capital Regional District are due and payable by the owner of the parcel on presentation. A penalty of ten percent (10%) will be charged if payment is not made within thirty (30) days of the billing date.
- In Part 2, repeal the definition of a single family dwelling unit.
- Repeal Part 3 and replace with:
  - 3. Fees Payable:
    - (a) User charge per service connection: \$500.00 per year, billed each three months.
    - (b) Consumption Charge:

The consumption charge for water will be the volume of water metered to each service connection, measured in cubic metres (or other units converted to cubic metres) over a three-month billing period at a rate as follows:

First 37.5 cubic metres or portion Next 67.5 cubic metres or portion Greater than 105 cubic metres \$2.25 per cubic metre \$8.00 per cubic metre \$25.00 per cubic metre

Colwyn Sunderland, AScT

Local Services Engineering Coordinator

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Attachments: 2

# CAPITAL REGIONAL DISTRICT

### BYLAW NO. 3512

# A BYLAW TO IMPOSE FEES AND OTHER CHARGES WITHIN THE CEDAR LANE WATER SERVICE AREA

#### WHEREAS:

- Under Bylaw No. 3424, "Cedar Lane Water Service Establishment Bylaw No. 1, 2007", the Capital Regional District established a service to supply, treat, convey, store and distribute water in the area A. shown outlined on Schedule "A" of Bylaw No. 3424.
- Bylaw No. 3424 authorizes the recovery of the annual costs of the Service by one or more of the В. following:
  - a) by way of an annual parcel tax;
  - b) by fees and charges to be imposed by bylaw under Section 363 of the Local Government Act;
  - c) by revenues raised by way of agreement, enterprise, gift, grant or otherwise; or
  - d) any deficiency arising from a shortage of revenue generated by (a), (b) and (c) to be collected by a property value tax to be levied and collected under Section 806.1 of the Local Government Act.

NOW THEREFORE the Board of the Capital Regional District in open meeting assembled enacts as follows:

#### <u>Interpretation</u> 1.

In this Bylaw, unless the context otherwise requires:

- (a) "Consumer" means a person to whom a service connection has been provided by the Capital Regional District.
- (b) "Service Area" means the service area established under Bylaw No. 3424, "Cedar Lane Water Service Establishment Bylaw No. 1, 2007".
- (c) "Service Connection" means a pipe and all necessary valves, connections, meters and other appurtenances necessary to connect a water main to a curb stop on the property line.

#### Service Connection Fee 2.

An applicant for a service connection in respect of real property within the service area shall, at the time of making application for the service connection, pay the service connection fee set out in Schedule "A" hereto.

#### Turn on and Turn off Fee 3.

A consumer in the service area requesting the turning off or turning on of the water supply at the curb stop under Section 22 or 24 of Bylaw No. 1792, "Water Regulations Bylaw No. 1, 1990", shall pay the applicable turn on or turn off fee set out in Section 1 of Schedule "B" hereto.

# 4. Abandonment Fee

The owner of property in the service area wishing to discontinue the water supply under Section 23 of Bylaw No. 1792, "Water Regulations Bylaw No. 1, 1990", shall pay the applicable abandonment fee set out in Section 2 of Schedule "B" hereto.

# 5, <u>User Fee</u>

The user fees set out in Schedule "C" hereto are hereby imposed on each consumer in the service area and shall be paid in accordance with Schedule "C" hereto.

## 6. Bylaw Repealed

This Bylaw repeals Bylaw No. 27, "Tolls Bylaw, 2004", of the Cedar Lane Waterworks District.

7. This Bylaw may be cited for all purposes as the "Cedar Lane Water Service Area Fee and Charge Bylaw No. 1, 2008".

READ A FIRST TIME THIS	14 <sup>th</sup>	DAY OF	May	2008
READ A SECOND TIME THIS	14 <sup>th</sup>	DAY OF	May	2008
READ A THIRD TIME THIS	14 <sup>th</sup>	DAY OF	May	2008
ADOPTED THIS	14 <sup>th</sup>	DAY OF	May	2008

CHAIR

SECRETARY

# SCHEDULE "A"

# WATER CONNECTIONS AND CHARGES

# CEDAR LANE WATER SYSTEM

The British Columbia Plumbing Code shall apply to all connections made to the Capital Regional District water system, together with the conditions as set forth hereinafter:

- Any connections not conforming to the requirements set out in the British Columbia Plumbing Code shall not be connected to the Capital Regional District water system.
- 2. The connection charge for a service connection shall be the actual cost for the connection, calculated as follows:

(i)	Engineering Costs: Including survey, design, permit acquisition, layout, inspection and as-constructed drawings	\$
(ii) ·	Construction Costs: Including labour, materials and equipment	\$
(iii)	Administration Costs: At 15% of the sum of (i) + (ii)	\$
ACTUA	AL COST = Sum of (i) + (ii) = (iii)	\$

The minimum connection charge shall be \$400.

3. The fees payable herein shall be paid to the Capital Regional District on application for connection to the utility.

# SCHEDULE "B"

# **MISCELLANEOUS FEES**

The fees payable herein shall be paid to the Capital Regional District on application for the service:

# 1. Turn on and Turn off Fee:

Pursuant to Section 3, the fee for turning on or turning off the water supply at the curb stop is:

(a)	During normal working hours (07:30 - 16:00)	Turn off	\$25.00
	Monday through Friday non-inclusive of statutory holidays	Turn on	\$25.00
(b)	During non-working hours	Turn off Turn on	\$120.00 \$120.00

# 2. Abandonment Fee:

Pursuant to Section 4, the fee for abandonment of a water supply is the actual cost to the Capital Regional District to remove the service connection, calculated in accordance with the formula in Schedule "A" appended to this bylaw. The minimum fee set out in Schedule "A" for a new connection shall not apply.

# SCHEDULE "C"

## **USER FEES**

# Billing and Payment:

- (a) User fees invoiced by the Capital Regional District are due and payable by the owner of the parcel on presentation. A ten per cent (10%) penalty will be charged if payment is not made within sixty-five (65) days of the billing date.
- (b) User fees shall be payable each two months as billed by the Capital Regional District.
- (c) Amounts outstanding after penalty dates will be considered arrears.
- (d) All payments received will be applied firstly against arrears, and then to current balances.
- 2. For purposes of this schedule:

<u>Single Family Dwelling Unit means a self contained room or suite of rooms containing cooking, sanitary and sleeping facilities designed for permanent or seasonal human occupancy by one household.</u>

User Fee means a fee or charge imposed under Section 5 of this Bylaw.

# Fees Payable:

(a) User charge per dwelling unit: \$588.00 per year, billed each two months except in the year of adoption of the Bylaw where it will be billed over the final three billing periods.

The type of use described in Column A is equivalent to the number of units specified in column B.

COLUMN A		COLUMN B
Single family dwelling unit Two family dwelling housing unit, per unit Multi family dwelling unit, per unit Seasonal cottage	21	1 1 1 1

# (b) Consumption Charge:

The consumption charge for water will be the volume of water metered to each single family dwelling unit, measured in cubic metres (or imperial gallons converted to cubic metres) over a two-month billing period at a rate as follows:

First 35 cubic metres or portion Next 25 cubic metres or portion Next 10 cubic metres or portion 70.01 cubic metres or greater	\$1.35 per cubic metre \$1.55 per cubic metre \$5.00 per cubic metre \$25.00 per cubic metre	35
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# **CEDAR LANE WATER SERVICE AREA** RECOMMENDED CHANGES TO BILLING BYLAW

January 14, 2009

The Capital Regional District (CRD) bills property owners and residents in the Cedar Lane water service area for the annual debt servicing and operations and maintenance costs for the water system. Several residents have expressed concerns about the changes to the cost recovery structure that were made when the Cedar Lane water system became a CRD service a year ago. The CRD and the Cedar Lane water service commission are seeking input from Cedar Lane residents on a proposal to amend the bylaw.

# Current (2008) Tax and Fee Structure

The annual costs of operation and debt servicing for capital improvements are currently recovered from property owners and water users on the following basis.

Debt servicing costs: \$525 annual parcel tax to each property in the water area = \$19.950 This is the annual cost of repaying funds borrowed in order to upgrade the existing waterworks and to develop additional water supply capacity.

## Operating costs:

\$27,048 Fixed annual fee per single family dwelling or equivalent (SFE) \$588 X 46 = 1. \$ 5,735 2.

Fees based on water usage (average \$124.67 per SFE per 2008 budget) = \$32,783 Usage Fee Structure (per 2 months usage)

Tier 1 up to 35 m<sup>3</sup> \$1.35/m<sup>3</sup> \$1.55/m<sup>3</sup> Tier 2 35 to 60 m<sup>3</sup> Tier 3 60 to 70 m<sup>3</sup>

\$5.00/m<sup>3</sup> Tier 4 above 70 m<sup>3</sup> \$25.00/m<sup>3</sup>

For purposes of the billing bylaw, a SFE includes a single family dwelling, a cottage or auxiliary house, a basement suite, or other accomodation with cooking, living and plumbing facilities. There are 38 customers (metered service connections) in the water area, and 46 SFE. Based on the 2008 budget, an average property with a single dwelling would pay \$525 parcel tax, \$588 fixed user charge and about \$125 in water usage charges for a total of \$1,238/year; whereas a property with two average dwellings would pay \$525 + 2 x \$588 + 2 x \$125 = \$1,951. The actual average usage charge in 2008 was about \$160 per SFE, so the average single dwelling on a parcel actually paid about \$1,273 in 2008. The overall average per account (per property) was \$1,400. Three quarters of customers paid \$1,371 or less and half paid \$1,271 or less. The highest total cost per connection (property) was \$2,760 for total annual usage of 349 m<sup>3</sup>, while the highest total cost per SFE was \$1,456 for total annual usage of 248 m<sup>3</sup>.

# Concerns with the Current Structure

The primary concerns expressed by Cedar Lane residents about the current billing structure relate to the use of the SFE, which was not previously used. The SFE represents a significant change, particularly for property owners deemed to have more than one SFE per parcel. Some residents, particularly those with multiple dwellings on a property, have experienced sharp cost increases under the 2008 rate structure. Residents have expressed concerns about fairness, incentive to conserve water, complexity and clarity regarding the rate structure and billing. The present structure tends to penalize owners who may have a basement suite or other secondary dwelling on a single property, but who also practice water conservation or do not have full-time tenants. Owners with only a single dwelling per parcel with high water use tend to pay only a small premium over those who conserve.

# Recommended Changes to Fee Structure

In light of residents' concerns, CRD staff have analyzed several cost recovery structures using 2008 Cedar Lane water consumption data. The analysis was used to develop a recommended rate structure that is intended to strike a balance that achieves fairness, conservation incentive, clarity and simplicity to the greatest extent possible.

It is not recommended to amend the parcel tax of \$525, which is used to recover capital costs. Parcel tax is typically used for this purpose in the CRD local services on the basis that it shares the capital cost equally among parcels in the service area, all of which have access to the infrastructure purchased using the parcel tax regardless whether they are already connected to the infrastructure. Also, land owners over the age of 55 may opt to defer their parcel taxes until the property changes hands, at a low interest rate (visit <a href="http://www.sbr.gov.bc.ca/individuals/Property Taxes/Property Tax Deferment/ptd.htm">http://www.sbr.gov.bc.ca/individuals/Property Taxes/Property Tax Deferment/ptd.htm</a> for more information). This reduces the burden of annual water costs on those who may be on a fixed income. The disadvantage of recovering costs using a parcel tax is that the province levies a 5.25% charge for processing parcel taxes, meaning that the CRD recovers less than 95% of the tax paid by residents as revenue for capital works.

The following fee structure is recommended:

- Fixed annual user fee of \$500 per service connection. The fixed portion of the user fee will be based on metered connections rather than SFE, which is considered to be fairer, clearer and simpler than the SFE model, particularly given the number and the varied characteristics of secondary dwellings in the Cedar Lane service area. The total revenue from fixed charges will be \$500 x 38 connections = \$19,000. This is significantly less than the \$27,048 obtained from the \$588 fee charged to 46 SFEs in 2008, requiring a larger proportion of the revenue to be obtained based on water usage. This results in a more conservation-oriented structure than the current one.
- Three-tier usage fee structure based on billing every 2 months per service connection:

Tier 1 up to 25 m<sup>3</sup> \$2.25/m<sup>3</sup> Tier 2 25 to 70 m<sup>3</sup> \$8.00/m<sup>3</sup> Tier 3 above 70 m<sup>3</sup> \$25.00/m<sup>3</sup>

The usage fee structure will be simplified by removing the 60-70 m³ tier, which serves no significant purpose (in 2008, only two accounts ever exceeded 60 m³ in a billing period, and none ever exceeded 70 m³). The Tier 1 rate will be increased to \$2.25/m³ in order to compensate for the reduced fixed charge, and the threshold for Tier 2 is reduced to 25 m³ recognizing that 75% of accounts used less than 25 m³ per billing period in winter months in 2008, and more than half used less than 25 m³ per billing period in summer months as well, demonstrating that this is a reasonable quantity of water to meet essential household water needs. The Tier 2 rate will be increased to \$9.00/m³, creating a significant cost incentive to maintain water use below 25 m³ per billing period. Tier 3 will not change from the current Tier 4, but will remain in place for the purpose of recovering costs of trucking in water in the unlikely event of grossly excessive water use. Based on actual usage in 2008, this usage fee structure will yield total revenue of \$15,058.

# Effects of the Recommended Changes

Attached are three tables showing 2008 water use, rates and resulting revenue by customer for the existing and recommended fee structures, as well as an alternate structure. The recommended structure will increase total user fee revenue by 2.5% to \$34,058 based on 2008 usage. The rationale for this small increase is that usage is likely to decrease due to the strong economic incentive for high water users to conserve under this structure. The large increase in the proportion of total revenue gained through usage charges, coupled with the strong economic incentive to conserve water, will significantly increase the risk of a revenue shortfall. Rates may need to be increased in future years to maintain the required revenue to operate the service if consumption significantly decreases. In the event that the revenue exceeds operating cost needs due to higher than predicted usage, the surplus revenue will be transferred to the

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Cedar Lane water reserve fund for future upgrades or repairs to the system as needed. A revenue shortfall would result in an operating deficit, requiring a significant rate increase in the following year to recoup the deficit and ensure that a successive deficit is avoided.

The alternate structure incorporates a higher fixed annual fee of \$700 and correspondingly lower usage fees in order to reduce this revenue risk and yield total revenue of \$33,206, which is similar to 2008 total revenue. However, it provides a considerably weaker incentive to conserve water than the recommended structure, and it significantly increases the annual cost to most customers.

The effects of the three rate structures are shown in Figures 1 and 2. Figure 1 represents total water cost per connection (parcel tax, fixed annual user fee and usage charges) vs. 2008 water use. Figure 2 represents the total cost per SFE vs. 2008 water use.

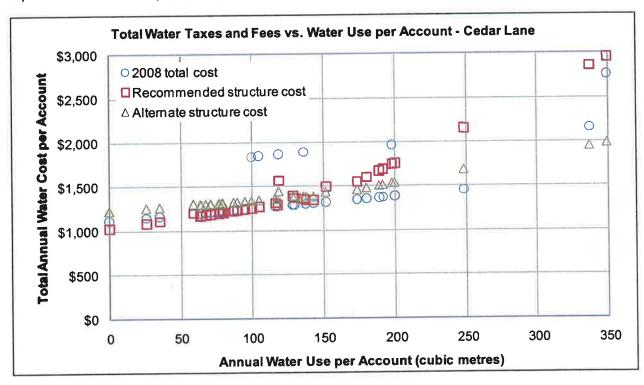


Figure 1. Water cost vs. usage per connection for current, recommended and alternate structures

Based on 2008 water use, under the recommended structure an average property with a single dwelling would pay the \$525 parcel tax, \$500 fixed user charge and about \$298 in water usage charges for a total of \$1,323/year; whereas a property with two average dwellings would pay \$525 + \$500 + \$650 = \$1,675. The overall average per connection (per property) would be \$1,421. Three quarters of customers would pay \$1,537 or less and half would pay \$1,260 or less. The highest total cost per connection (property) would be \$2,956 for total annual usage of 349 m³, while the highest total cost per SFE would be \$2,148 for total annual usage of 248 m³. The general effect of the recommended structure on water costs compared to the current structure is that low water users will pay less, high water users will pay significantly more, and most connections serving more than one dwelling will pay significantly less than in 2008.

It is important to note that costs to most users may increase in the next few years as high water users reduce their water consumption in response to the high cost of water in the second tier. For example, if the top eight water users are each able to reduce their annual water costs by \$250 through conservation, the resulting rate increase to recover the \$2,000 shortfall would increase the average cost to the remaining 30 users by \$67. The alternate rate structure attached would reduce the likelihood of such an increase by charging a higher fixed fee, which has the effect of increasing costs to low water users and decreasing costs to high water users compared with the recommended structure. The

recommended structure includes a 2.5% increase in rates based on 2008 usage to balance reductions in usage that are likely to occur among the highest users if it is enacted.

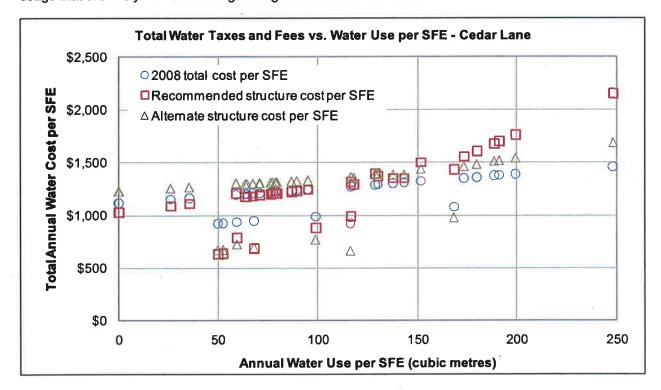


Figure 1. Water cost vs. usage per SFE for current, recommended and alternate structures

The Cedar Lane water service commission is scheduled to meet on 20 January, 2009 at 3:30 PM at the Salt Spring Island Baptist Church, 520 Lower Ganges Road, to approve changes to the water billing bylaw for 2009. Staff will recommend that the commission approve the changes that are recommended in this document. Cedar Lane residents are welcome to attend the meeting, and will have an opportunity to contribute to discussion before rate changes are approved. If you have any questions, contact Colwyn Sunderland at <a href="mailto:csunderland@crd.bc.ca">csunderland@crd.bc.ca</a> or 250-360-3175.

Colwyn Sunderland, AScT Local Services Engineering Coordinator 250-360-3175 csunderland@crd.bc.ca

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1	-	_	16.00	31.73	31.73		17.82	15.91	5.91						128.70										. 8
	-	15.59	15.59	17.73	17.73	26.87	26.87	27.73 2	7.73						26.911										39
ın	<b>←</b>	13.77	13,77	14.32	14.32	21.50	21.50	19.50 1	9.50						20.70							•	_	_	8
4	2	18.28	9.14	22.32	11.16	18.41	9.21	26.69 1	3.34 2						00.00							•	~	_	S.
- vo	7	21.68	10.84	0.00	0.00	0.00	0.00	42.51 2	1.25 5						0.00										.37
9	-	0.00	0.00	0.14	0.14	000	000	0.00	0.00						20.00										우
7	-	4.55	4.55	4.46	4.46	4.27	4.27	4.36							70.02										62
90	-	7.23	~	11.14	11.14	13,50	13.50	ST 4							86.07										.41
6	-	19.96		11.77	11.77	16.32	2	_							130.08										.59
10	-	18.14		16.37	16.37	20,32	NI	28.28 2	28.28						248 22										.17
=	-	44.87		42.37	42.37	44.55	0.1								000										99
12	τ-	0.00		0.00	0	0.00	2.0								79.33										60
13	-	13.09													143.25										88
14	-	25.00					20701.		_						63.65										.92
15	-	7.50													151 70										98.
16	-	20,59													168 48								•		.45
17	5	66.19					77.00 S277.0		- 2						67.51										14
18	-3	9.46					2.6	00.51							78.78										36
19	-	15.41						0.							52.60								•		.01
20	64	13,59					277								64.55										.15
21	•	10.59													79.65										5.52
22	-	14.82													71.15										1.05
23	•	10.82													137.75										3.96
24		27.23							. 5						173,57										2.32
25	-	29.23							-						199.62										7.62
26	-	33.32	33.32	3 6		30.09		8 00							35.41										5 6
27		0.00	2000						- 62						188.84										4 T
28	- (	20.00	202	500											98.85										5.5
S, 6	7 -	24.00		70				20.14	715						118.02										1 10
8 8	٠	25 40		0.02					1						180.07										2.30
- 6	-	25.78	25.78	sate	31.82	27.37	27.37	-	38.78		35.82 3				191.39										691,35
33	*	8.68	8.68				17.46	MD.	-						76.50										5.17
8 8	63	45.14	15.05				22.05	68.92	22.97						116.43										5.33
38	2	13.32	99.9		8.05		11.82	20.68	10.34		_				48.07										2.58
98	**	12.55	12.55		12.68		14.37	13.50	13.50						100										99'.
37	-	4.68	4.68	2.55	2.55	132	11.32	32.46	32.46		٥				0.00								, July		8.90
88	٢	15.37	15.37	15.18	15.18	20.41	20.41	14.37	14.37	-1	_		Г	ľ	02.20	Ц.,	4.	45	1			2	_		
TOTAL	46	714.65	:	712.01	7	807.80	9	910.63	200	716.46		19		120	101	25	353	58	35	25 25	25 163	63 712		22	725
MEAN		6 9	9 1	5 5	5 5	7 7	<u> </u>	5 5	2 5	5 12	5 5	Ť.	13		83									99	200
MEDIAN		9 1	2 €	5 F	2 8	- C	- 4	1 6		2 6		25	_		136	¥	8							99	
75th PERCENTILE	TILE	22	77	27	3	17	07	36	7	3		3													

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CEDAR LANE 2008 WATER RECOMN

ANE	ANE WATER SERVICE	ERVICE		0	į				USER FEE STRUCTURE	E STRU	CTURE					Tier	E E	max m	Rate Sm <sup>3</sup>						
TER	SAGE A	TER USAGE AND REVENUE PER ACCOUNT	VE PEK.	ACCOUN	-				Fixed An	Fixed Annual Charge		\$ 500 p	ber co	connection		- 5	0.5	52	Si	2.25					
MM	ENDED	MMENDED USER FEE STRUCTURE	PEE S	TRUC	TURE	10.1			Volumetr	ric Charg	e (per 2	nonths)		Volumetric Charge (per 2 months) =================	×	3.6	9 2	66666	o 40	25.00					
								-																	
						\$	WATER CONSIMPTION (m^3)	dMilSNC	·MOIT	(Ev							œ	REVENUE FROM CONSUMPTION	FROM C	ONSUMP	TION		TOT	TOTAL USER FEE	ш
2	1	land of	nortago	Marane	norlefo	Maylo	norlate	MAIN	er/sfe	SepOct	per/sfe NovDec		er/sfe	TOTAL 1	TOTAL/SFE	JanFeb	MarAp	MarApr MayJun	JulAug !	SepOct NovDec	o	SUBTOTAL	FIXED FEE	TOTAL TOTAL/S	TAL
Y Y	ų,	16 00	16.00	24 73	24.75	17.82	17.82	15.01	15.91	15.50	15.50		31.73	128.70	128.70	36.01		40.10	35.80	34.88	110,10	366.99	200	866,99	96
	- •	16.00		17.73	47.75	76.87	26.87	27.73	27.73	10.87	10.87		17.73	116.52	116.52	35.08			78,10	24.45	39.69	288,60	200	788,60	78
	- •	12.73			14.35	2150	21.50	19.50		11.68	11.68		14.32	95.10	95.10	30.95			43.88	26,29	32.22	213.98	200	713.98	71
	۰ -	18.28	9.14	22.32	11.16	16 18.41 9.21 26.69	9.21	26.69	•	28.14	14.07	22,32	11.16	136.16	68.08	41,12	50.22	41.43	69.73	81.37	50.22	334.10	200	834.10	41
	, ,	21.68			0.0	000	00.0	42.51	21.25	54.83	27.41		0.00	119.02	59.51	48.75			196.30	294.86	0,00	539,95	200	1,039.95	51
	4 -	000		0.14	0.14	0.00	00.0	0.00		000	0.00		0.14	0.27	0.27	0.00			00'0	0.00	0.31	0,61	200	500,61	20
	-	4.55			4.46	3 4.27	4.27	4.36		3.91	3.91		4.46	26,00	26.00	10.23			9,82	8.80	10.02	58.51	200	558.51	92
		7 23			11.14	13.50	13.50	12.14	~	15.68	15,68		11.14	70.83	70.83	16.26			27.31	35,29	25.06	159.36	200	659.36	65
		19 96			11.7	7 16.32	16.32	15.50	4	11.64	11.64		11.77	66,97	86.97	44.90	_		34.88	26.19	26.49	195.68	200	695.68	69
	- •	10.00			16.3	7 20.32	2032	28.28		30,60	30.60		16.37	130.06	130.06	40.81			82.46	101,01	36.82	343,66	200	843.66	22
	- •	44.87			42.3	7 44 55	44.55	41.23		32.82	32.82		42.37	248.22	248.22	215.21		• • •	186,11	118.83	195.21	1,123.23	200	1,623.23	1,62
	- •	000			Ö	000	0.00	0.00		0.00	0.00		0.00	0.00	00.00	0.00	_		0.00	0.00	0.00	00"0	200	500.00	S
		13.00			13.05	9 11.87	11.87	12.87	12.87	15,32	15,32		13.09	79.33	79.33	29.46			28.95	34.47	29.46	178.49	200	678.49	67
	•	25.00			24.50	0 25.00	25.00	24.73		19.50	19.50		24.50	143.25	143.25	56.28	_		55.64	43.88	55.13	322.35	200	822.35	82
	٠.	7.50			7 6.	1 13.27	13.27	17.68		9.91	9.91		7.64	63,65	63.65	16.88	_		39.79	22.30	17,18	143.20	200	643,20	8
	-	2			?	-				;					1 . 1 .										

						\$	0	SCMP	E) NO							-	u a	-			-	בואבט בבני	TOTAL TO	TAI /CEE
CUSTOMER	SFE		er/sfe h	MarApr p	per/sfe M			JulAug	er/sfe S	٩	ž	-		5	,	~	2	,	"	~	ž	מיט ו	2000	000000
-	-		16.00	31.73	31.73	17.82	17.82	15.91	15.91													000	200 60	799.53
2	-		15.59	17.73	17.73	26.87	26.87	27.73														002	742.00	742.00
8	-		13.77	14.32	14,32	21.50	21.50	19.50														000	7.3.93	10.30
4	2		9.14	22,32	11.16	18.41	9.21	26.69														000	634.10	417.03
. 147	2		10.84	000	0.00	00'0	0.00	42.51														2009	1,039.95	519.97
9	۰-		0.00	0.14	0.14	0.00	00.0	0.00														200	500.61	500.61
	-		4.55	4.46	4.46	4.27	4.27	4.36														200	558.51	558.51
- α			7.23	11.14	11.14	13.50	13,50	12.14														200	659.36	659.36
> 0			19.06	11 77	11.77	16.32	16.32	15.50														200	695.68	695.68
e <del>+</del>	- •		18 14	16.37	16.37	20.32	20.32	28.28														200	843.66	843.66
2 ‡			44.87	42.37	42.37	44.55	44.55	41.23														200	1,623.23	1,623,23
- 5			000	000	000	0.00	0.00	0.00														200	500.00	200.00
4 t			13.09	13.09	13.09	11.87	11.87	12.87				_										200	678.49	678.49
2 7	- +		25.00	24.50	24.50	25.00	25.00	24.73														200	822.35	822.35
† u	- •		7.50	7.64	7 64	13.27	13.27	17.68														200	643,20	643.20
15	- •		20.50	22.18	22 18	45.32	45.32	27.32				_										200	971,55	971.55
1 9	- 0		33.10	57.42	28.71	55.60	27.80	53.83														200	2,333.15	1,166.58
- 0	۷ -		9 46	12.68	12 6A	9.77	6.77	13.55				_										200	651.90	651.90
0 0			15.41	14.09	14.09	13.32	13.32	10.55				_										200	677.26	677.26
20	- c		9	17.72	7.86	19.00	02	26.59	_			_										200	745.86	372.93
21	7 -		10.59	823	8.23	14.96	14.96	15.27	_			_										200	645.25	645,25
22			14.82	9	96.6	9.27	9.27	15.77														200	679,21	679.21
25 66			10.82	12.64	12.64	12.09	12.09	12.91														200	60.099	90.099
370			27.23	23 23	23.23	24.37	24.37	22.91			_	_										200	822.76	822.76
25			20.03	25.37	25.37	32.60	32.60	31.37														200	1,026.06	1,026,06
36	- +		33.32	34 41	34.41	35.69	35.69	32.32														200	1,234.45	1,234.45
27	- +		5.68	909	009	4.36	4.36	8.00	_			_										200	579.68	579.68
20			30.14	32.10	32.10	32.05	32.05	33.96			_	_										200	1,148.26	1,148.26
2 2	٠,		15.09	27.37	13.68	34.96	17,48	53.28	_													200	1,221.77	610.89
67	1 -		21.00	18.28	18.28	20.78	20.78	20.14	_			~										200	765.54	765.54
3 8	-		25.19	30.96	30,96	29.23	29.23	33.87			_											200	1,078.07	1,078.07
32			25.78	31,82	31.82	27,37	27,37	38,78	38.78		35.82	31,82 3	31.82 19									200	1,168.62	1,168.62
1 2	-		8.68	10.82	10.82	17.46	17,46	21.14	_		_	۸.										200	672.25	672.25
34 8	· (c)		15.05	54.55	18.18	66.15	22.05	68.92			_											200	2,431.71	810.57
35	0		6.66	16.09	8.05	23.64	11.82	20,68	_			~										200	724.42	362.21
8 %	٠		12.55	12.68	12.68	14.37	14.37	13.50	_		_	_							_			200	674.30	674.30
37	-		4.68	2.55	2.55	11.32	11.32	32.46	~													200	675.66	675.66
38	•		15.37	15.18	15.18	20.41	20.41	14.37		_		m	62		,:	- 1	I		1			200	701.51	101,51
TOTAL	46	714.65		712.01		807.80		910.63		716.46	7	12.01	4	,573.55 3,	3,843.31	2,225	2,281 2,711		3,194 2,	2,366 2,281	15,058	19,000	34,058	763
MEAN		19	16	19	16	21	18	24	20	<u></u>	15	13	9 9						- 1			2002	735	679
MEDIAN		16	15	15	13	19	11	7	19	5	13	15							100			000	4042	8
75th PERCENTILE	3	52	2	52	23	27	25	32	27	28	50	52		_	136	20	_		2			Tax.	11411	3

CEDAR 2008 W ALTE

CEDAR LANE WATER SERVICE	R SERVICE							nsı	ER FEE STRUCTURE	TRUCTL	IRE					Tier	m'u	max en	Rate S/m²	9 °c					
2008 WATER USAGE AND REVENUE PER ACCOUNT	E AND REVE	NUE P	ER ACCC	TNUC				N.	Fixed Annual Charge	Charge	s	700 per	conn	connection		-	0	25		1.10					
ALTERNATE USER	USER FEE	E ST	STRUCTURE	JRE				2	umetric (	harae (	Volumetric Charge (per 2 months)	nths) ===			<b>^</b>	3.5	8 2	66666	n vn	25.00					
						WATE	R CONS	UMPTIC	WATER CONSUMPTION (m^3)									EVENUE		REVENUE FROM CONSUMPTION	PTION	SUBTOTAL	TOT FIXED FEE	TOTAL USER FEE EE TOTAL TOT	USER FEE TOTAL TOTAL/SFE
CHSTOMER	SFE JanFeb	b periste	ste MarApr		periste MayJun periste JulAug periste	Jun pe	riste Jul	Aug pe	ഗ്		0	<u>a</u>		OTAL TO 1	TOTAL/SFE	17 60	47 70	Mar Apr may 5011		17.05	47.70	3	700	867.15	867.15
			**	• •									17.73	16.52	116.52	17.1	19.50	33.10	35.69	11.95	19.50	136.91	700	836.91	836,91
7	15.59		15.59 17.	17.73	17.73 24	20.87	21.50							95.10	95.10	15.16			21.45	12,85	15.75		2002	858.94	429.47
m •	1828		_	Ċ										36.16	68.08	20.10			32.30	116.98	00.0		700	920.85	460.42
4 ro	2 21.68	-		_		_						0.00		19.02	0.27			0.00	000	0.00	0,15		700	700,30	700.30
9	1 0.00		٠.	0.14	0.14 (	0.00	0.00	0.00	4.36	3.91	3.91		- 10	26.00	26.00						4.90	28.60	700	728.60	777.91
► 0	1 4.55	•	7.23 11.		_	_	_			_				70.83	70.83					12.80	12.95		902	795,66	795.66
00	19:96							_						86.97	130.06						18.00		700	859.93	859.93
10	1 18.14	•				٠.		28.28						30.06	248.22						79.61		200	1,159.65	1,159.65
1	1 44.87	•	▼ .	42.37	42.37	66.55	0.00							0.00	0.00						0.00		00,2	787 26	787.26
12	13.00		-											79.33	79.33						26.95		002	857,59	857.59
13	1 25.		25.00 24			_	_							43.25	143.25						8.40		7007	770.01	770,01
<u> </u>	1 7.50					13.27								51.70	151.70						24.40		700	909.90	909:90
16	1 20.59				22.18 4	45.32	45.32	27.32						36.96	168.48						124.75		700	1,425.87	774.26
17	2 66.	(*)			.,	22.00								67.51	67.51						13.95		002	786.66	786.66
œ ç	1 15.41	-		14.09	14.09	13.32		10.55						78.78	78.78						17.30		700	818.75	409.37
20	2 13.59		_			19.00								64 55	52.00						9.05		200	771.01	771.01
21	1 10.			8.23	8.23	14.96	14.96	15.27						79.65	79.65						10.95		700	778.26	778.26
22 8	14.	14.82 14	14.62 S			12.09	12.09							71.15	71.15						25.55		200	855.76	855,76
S 73	1 27.			23.23		24.37								137.75	137,75						28.60		700	935,71	935,71
25	1 29.23					32.60	32.60			29.64		34.41	34.41	199.62	189.62		7 55.74	4 59.56			55.74		700	1,013,86	738.96
26	1 33	33.32 3.	33.32 34	. 608	_	4.36	4.36	8.00		The same				35.41	35.41						48.70		2007	981.53	981,53
28	- 1		0,			32.05	32.05		33.96	28.50				188.84	188.84						34.60		700	1,008.99	504.49
53	2 30					34.96	17.48	53.28	26.64					118.02	118.02						20.10		700	829.82	055.21
30	1 21		21.00 18	18.28		29.73	29.23		33.87					180.07	180.07		6 45.38				47.9		700	989.17	989.17
32	- 1	25.78 2			31.82	27.37	27.37		38.78					191.39	191.39						11.90		700	784.21	784.21
33	-					17.46	17.46	21.14	21.14	7.64				349.28	116.43		_				116.16		700	1,462.83	487.61
34	3 45			54.55		66.15	22.05	20.92	10.34					99.74	49.87						17.7		00/		785.21
35	20 13	•		16.09	0.03	14 37	14.37	13.50		11.68	11.68			77.47	77.47						13.50		002		779.08
98 t	- +	12.55 4.68	4.68	2.55		11.32	11.32	32.46	32.46	5.46			2.55	59.01	59.01		5 2.80				5 16.7		700	**	798.51
38	1			15.18	- 1	20.41	20.41	14.37	F	9.05	9.05	-046	15.18	573.55	09:00	990					1,008	909'9 8	26,600	33,206	
TOTAL	46 71	14.65	-	12.01		21		24		19	15	19	16	120	101			27	38	27	<b>√</b> "		82	814	786
MEDIAN		16	5 5	<u>.</u>	13	19	17	21	10	5 6	13	15 25	2 2	102	136		- 80	- 88	. z		8 2	8 218	700	918	85
75th PERCENTILE	įμ	25	21	52		27		35	/7	07	9	3	2	3											