



ENGINEERING & ENVIRONMENTAL SERVICES COMMITTEE

WEDNESDAY, OCTOBER 24, 2012 - 3:30 P.M.
CVRD Boardroom, 175 Ingram Street

AGENDA

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| R8 | Amendment to CVRD Bylaw No. 2108 - Solid Waste Management Charges and Regulations Bylaw
Bob McDonald, Manager, Recycling & Waste Management | 139 – 146 |
| R9 | CVRD Greenhouse Gas Inventory and Emissions Reduction Plan, 2012, Kuan-Jian Foo, Senior Environmental Analyst | 147 – 148,
plus attachment |

7. NEW BUSINESS:

8. QUESTION PERIOD:

10. ADJOURNMENT

The next meeting of the Engineering & Environmental Services Committee will be held November 28, 2012.

Distribution:

Director Iannidinardo, Chair
Director Dorey, Vice-Chair
Director Duncan
Director Fraser
Director Giles
Director Lefebure

Director Marcotte
Director McGonigle
Director Morrison
Director Walker
Director Weaver

As Well As:

Director Hutchins, Chair, CVRD
Warren Jones, CAO
Brian Dennison, General Manager, Engineering & Environmental Services
Bob McDonald, Manager, Recycling & Waste Management
Dave Leitch, ASCT., Manager, Water Management
Kate Miller, Manager, Regional Environmental Policy
Mark Kueber, Manager, Corporate Services

Agenda Cover Only:

Directors Hartmann, Kent, Lines
Norm Olive, P. Eng., Manager, Capital Projects
Tom Anderson, General Manager, Planning & Development

Minutes of the regular meeting of the Engineering & Environmental Services Committee held in the CVRD Boardroom, 175 Ingram Street, Duncan, on July 25, 2012 at 3:30 p.m.

PRESENT: Director Iannidinardo, Chair
Directors Duncan, Fraser, Giles, Hutchins, Lefebure, Marcotte <3:42 p.m.>, Morrison, Walker, Weaver and Alternate Director Nelles

ABSENT: Directors Dorey and McGonigle

ALSO PRESENT: Warren Jones, CAO, CVRD
Brian Dennison, General Manager, E & E
Dave Leitch, Manager, Water Management
Jason Adair, A/Manager, Recycling & Waste Man.
Kate Miller, Manager, Regional Environmental Policy <4:25 p.m.>
Laura Nessman, Environmental Resource Assistant
Joanne Bath, Recording Secretary

APPROVAL OF AGENDA

It was moved and seconded that the agenda be approved as presented.

MOTION CARRIED

ADOPTION OF MINUTES

It was moved and seconded that the minutes of the June 27, 2012 regular Engineering & Environmental Services Committee meeting be adopted.

MOTION CARRIED

BUSINESS ARISING OUT OF MINUTES

No business arising

CORRESPONDENCE

From: Ian Graeme
Re: Youbou Water System

To be discussed under Report R14.

REPORTS

R1

A staff report was considered regarding Woodley Range Water System - Service Establishment and Loan Authorization Bylaws

It was moved and seconded that it be recommended to the Board:

1. That the *Certificate of Sufficiency*, confirming that sufficient petitions requesting establishment of a Water System Service Area and authorizing the borrowing of up to \$50,000.00, be received.

2. That Service Establishment and Loan Authorization bylaws for the Woodley Range Water System Service Area be prepared and forwarded to the CVRD Board for consideration of three readings, and, following provincial approval, adoption.
3. That, following adoption of the Service Establishment and Loan Authorization Bylaws, a Capital Reserve Fund Establishment Bylaw, a Parcel Tax Roll Bylaw and a Management Bylaw be prepared for the Woodley Range Water System, and that these bylaws be forwarded to the Board for consideration of three readings and adoption.

MOTION CARRIED

R2

A staff report was considered regarding Dogwood Ridge Capital Works Upgrades/Cowichan Tribes Agreement.

It was moved and seconded that staff continue to pursue discussions with the Cowichan Tribes to expand the Dogwood Ridge Water System and develop a servicing agreement with Cowichan Tribes and INAC to provide water to "Cowichan Indian Reserve No. 1, Parcel 112-1" on Cowichan Tribes lands; and further that the Area Director be included in all negotiations and consultations.

MOTION CARRIED

R3

A staff report concerning first stage approval for CVRD takeover of the Fairbridge Water System was considered.

Director Duncan asked that henceforth he be involved at the beginning in any discussions regarding requests of this nature.

It was moved and seconded that it be recommended to the Board that:

1. First stage approval and authorization of staff time be provided to investigate the takeover of the Fairbridge Water System, located in Electoral Area E, as requested by Doug McPhee, operator of the Fairbridge Strata Water Utility, subject to the following conditions and with the understanding that nothing is intended by this approval to fetter future CVRD Board decisions on required bylaws:
 - All lands with infrastructure works are to be transferred to the CVRD, or, if not possible be placed within registered Statutory Rights-of-way, using the CVRD's standard charge terms;
 - A utility transfer agreement be executed between the CVRD and the owner;
 - A CVRD review of the system be undertaken in order to address deficiencies in the water system;

- The owner of the utility be willing to transfer the system to the CVRD;
 - A public consultation process regarding CVRD takeover be undertaken;
 - A petition process be carried out and completed by at least 50% of the owners of parcels within the proposed service area with the total value of the parcels representing at least 50% of the net taxable value of all land and improvements in the service area.
 - This list is not exhaustive and items may be added, deleted or altered prior to a formal agreement being executed; and further
2. That an assessment of the system be carried out, funded to a maximum cost of \$15,000 from the CVRD Feasibility Study Function and repaid upon establishment of a CVRD function for this water system.
 3. That, upon completion of a successful petition process, bylaws be prepared to create a service area for this utility.

MOTION CARRIED**R4**

A staff report was presented providing CVRD Bylaw No. 3614 – Cowichan Valley Regional District Garbage & Recycling Materials Collection Amendment Bylaw, 2012.

Discussion took place regarding:

- 1) Timeline for putting garbage/recycling out as shift workers may not be home between the hours of 5:00 a.m. and 8:00 a.m.
- 2) The Committee voiced strong opposition to allowing residents in Electoral Area B, north of the Koksilah River to opt into garbage collection on a subscription basis, suggesting that the whole area would need to opt into this service...

It was moved and seconded that Bylaw 3614 - Cowichan Valley Regional District Garbage & Recycling Materials Collection Amendment Bylaw, 2012 be referred back to staff for further study.

MOTION CARRIED**R5**

A staff report was considered requesting an amendment to the Lanes Road Drainage Service Areas Amendment Request

It was moved and seconded that it be recommended to the Board:

1. That the *Certificate of Sufficiency*, confirming that a sufficient petition requesting inclusion into the Lanes Road Drainage service area be received.

2. That **"CVRD Bylaw No. 3078 – Lanes Road Drainage System Service Establishment Bylaw, 2008"**, be amended to include **"PID 001-098-241, Lot 3, Section 4, Range 6, Plan 32129, Cowichan District"**.
3. That the amended bylaw be forwarded to the Board for consideration of 3 readings and adoption.

R6

A staff report was provided regarding raising the Mill Bay Critical Streetlighting Maximum Requisition Limit.

It was moved and seconded that it be recommended to the Board:

1. That a bylaw be prepared to amend **"CVRD Bylaw No. 2137 – Electoral Area A - Mill Bay/Malahat Critical Location Street Lighting Service Establishment Bylaw, 2001"**, to increase the maximum requisition limit from \$2,000 to \$5,000.
2. That the amendment bylaw be forwarded to the Board for consideration of three readings and, following provincial and voter approval, adoption.
3. That voter approval for adoption of the amendment bylaw be obtained through an Alternative Approval Process.

MOTION CARRIED

R7

A staff report was considered regarding Shellwood Water System Service Establishment and Loan Authorization Bylaws

It was moved and seconded that it be recommended to the Board:

1. That the ***Certificate of Sufficiency***, confirming that sufficient petitions requesting establishment of a Water System Service Area and authorizing the borrowing of up to \$85,000.00, be received.
2. That Service Establishment and Loan Authorization bylaws for the Shellwood Water System Service Area be prepared and forwarded to the CVRD Board for consideration of three readings and, following provincial approval, adoption.
3. That, following adoption of the Service Establishment and Loan Authorization Bylaws, a Capital Reserve Fund Establishment Bylaw, a Parcel Tax Roll Bylaw and a Management Bylaw be prepared for the Shellwood Water System, and that these bylaws be forwarded to the Board for consideration of three readings and adoption.

MOTION CARRIED

R8

A staff report and PowerPoint presentation was provided for information regarding the new Cowichan Recyclopedia – The A to Z of Zero Waste.

Director Hutchins asked that staff communicate this initiative to Town of Ladysmith staff so that it can be brought forward in their quarterly newsletter.

FOR INFORMATION

R9

A staff report and PowerPoint presentation was provided for information regarding the new *Mattress and Box Spring Diversion Pilot Program*.

FOR INFORMATION

R10

A staff report was considered regarding Carlton Water System, Service Establishment and Loan Authorization Bylaws

It was moved and seconded that it be recommended to the Board:

- 1. That the *Certificate of Sufficiency*, confirming that sufficient petitions requesting establishment of a Water System Service Area and authorizing the borrowing of up to \$50,000.00, be received.**
- 2. That Service Establishment and Loan Authorization bylaws for the Carlton Water System Service Area be prepared and forwarded to the Board for consideration of three readings and, following provincial approval, adoption.**
- 3. That, following adoption of the Service Establishment and Loan Authorization Bylaws, a Capital Reserve Fund Establishment Bylaw, a Parcel Tax Roll Bylaw and a Management Bylaw be prepared for the Carlton Water System, and that these bylaws forwarded to the Board for consideration of three readings and adoption.**

MOTION CARRIED

R11

A staff report was reviewed regarding the Shawnigan Lake North Water System Conservation Fee.

It was moved and seconded that it be recommended that the CVRD apply a Water Conservation Fee of \$10,000 per connection to properties requesting inclusion into the Shawnigan Lake North Water System Service Area, lying within the Village Containment Area in the South Cowichan Official Community Plan, for the purpose of continued funding of the *Water Conservation, Metering and Backflow Prevention Program*.

MOTION CARRIED

R12 A staff report was provided regarding the 2012 Community Emission and Inventory Information.

FOR INFORMATION

R13 A staff report was provided for information regarding the Plan2Adapt Website and Tool.

FOR INFORMATION

R14 A staff report was brought forward regarding a request for a refund of parcel taxes for the Youbou Water System.

It was moved and seconded that a refund of 2009, 2010 and 2011 Youbou Water System parcel tax and debt payments not be granted to Mr. Ian Graeme, owner of Lots 50, 51, 52 and 53 on Sa-Seen-Os Crescent in Electoral Area I.

MOTION CARRIED

NEW BUSINESS

There was no new business.

**RESOLVE INTO
CLOSED SESSION
5:09 p.m.**

It was moved and seconded that the meeting be closed to the public in accordance with the Community Charter, Part 4, Division 3, Sections 90 (1) (e).

MOTION CARRIED

**RISE FROM
CLOSED SESSION
5:50 p.m.**

It was moved and seconded that the Committee rise without report.

MOTION CARRIED

ADJOURNMENT

It was moved and seconded that the meeting be adjourned.

MOTION CARRIED

The meeting adjourned at 5:50 pm

Chair

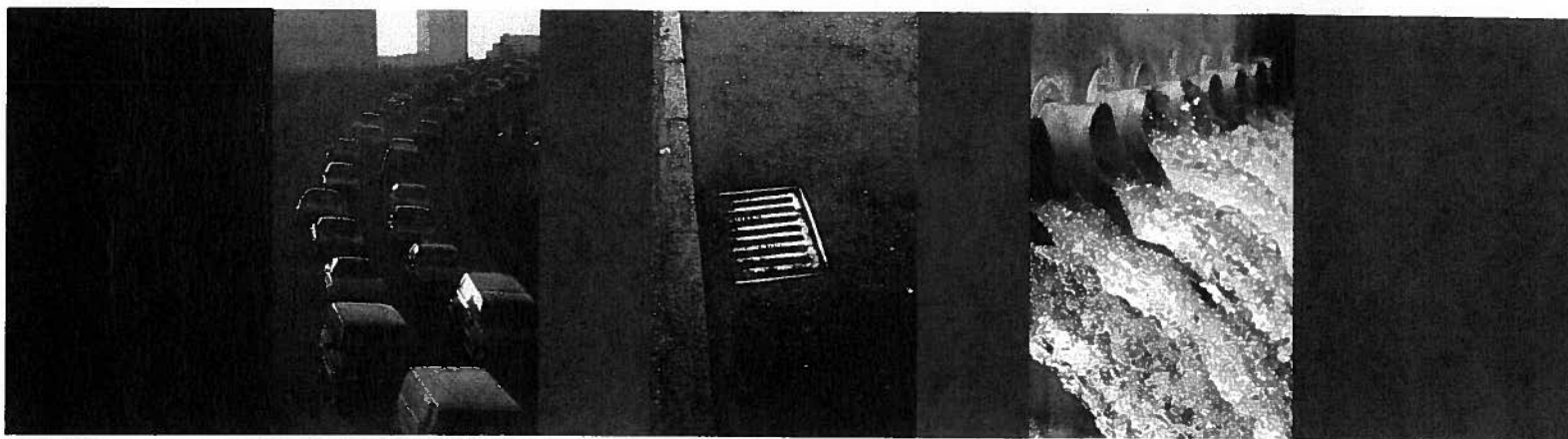
Recording Secretary

Dated:

IN1

CANADIAN INFRASTRUCTURE REPORT CARD 2012

Highlights





REPORT SUMMARY

Canada's first report card on municipal infrastructure offers an objective assessment of the state of infrastructure, and infrastructure management, in 123 municipalities. This report card consolidates data obtained from a voluntary survey of Canadian municipalities, which was designed to assess the condition of municipal infrastructure in 2009–2010.

The full report card provides an assessment of the condition of four primary asset categories of municipal infrastructure: drinking-water systems, wastewater and stormwater networks, and municipal roads. This is the first assessment of its kind in Canada, and features the most comprehensive analysis and reporting to date on Canada's municipal infrastructure.

This report is well timed. Following two decades of declining public investment in infrastructure, all governments have begun to reverse this trend by significantly increasing investment in the transportation, water and wastewater systems upon which Canadians rely each day.

The importance of investing in modern infrastructure has become synonymous with Canada's economic competitiveness and quality of life. During the recent financial crisis, all governments pooled resources and cooperated to an unprecedented degree, channeling stimulus funds into local infrastructure to create jobs, while also renewing the physical foundations of this country.

The Building Canada Plan will soon expire, casting a shadow over recent progress made in addressing Canada's municipal infrastructure needs. This report highlights how critical it is to continue building and renewing the infrastructure that is key to our continued economic vitality as a country.

While surveyed municipalities scored well in three of the four infrastructure categories, the ways in which governments may approach future management of these assets is more troubling. The immediate findings of this report show that municipal drinking-water and wastewater systems ranked "Good: Adequate for now," and that stormwater systems ranked "Very good: Fit for the future". Roads received an overall grade of "Fair: Requires attention."

A closer analysis of the data reveals that good overall grades are not cause for complacency, for a number of reasons.

Infrastructure Rated Fair or Poor

Overall report-card ratings for the four asset categories show that a significant amount of municipal infrastructure ranks between “fair” and “very poor”—on average about 30%. The replacement cost of these assets alone totals \$171.8 billion, nationally.

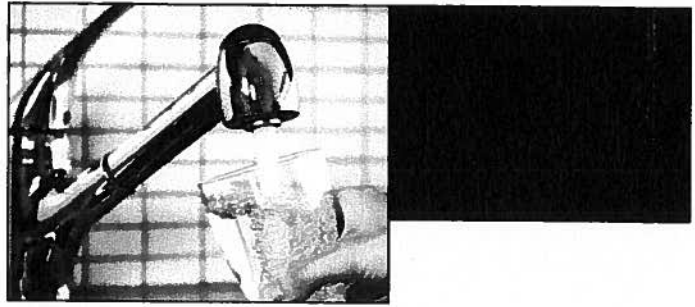
Municipal roads require urgent attention. An overall grade of “Fair” means the infrastructure “shows general signs of deterioration and requires attention, with some elements exhibiting significant deficiencies.” More than half the roads surveyed fall below a rating of “good”: 32% are in “fair” condition, and 20.6% are in “poor” to “very poor” condition, for a total of 52.6%.

One in four Canadian roads is operating above capacity, highlighting a real challenge to moving goods and people within our communities in the short and medium term. The estimated replacement cost of the roads in fair to very poor condition is \$91.1 billion, nationally. For the average Canadian household, this amounts to a cost of \$7,325.

A mixed picture emerges for wastewater infrastructure, with about 40% of wastewater plants, pumping stations and storage tanks in “fair” to “very poor” condition, and 30.1% of pipes in “fair” to “very poor” condition. The replacement cost for the wastewater infrastructure in “fair” to “very poor” condition is \$39 billion, or \$3,136 per Canadian household. With wastewater infrastructure now subject to new and more stringent federal regulations, even good or very good wastewater infrastructure may require upgrading or replacement.

Despite its overall “good” rating, drinking-water infrastructure also presents some cause for concern: 15.4% of the systems were ranked “fair” to “very poor” for the condition of their pipes. The figures were not much better for plants, reservoirs and pumping stations, where 14.4% ranked “fair” to “very poor”. Only 12.6% of plants, reservoirs and pumping stations ranked “very good”, as did just 4.2% of pipes. Considering the potential impact of drinking-water systems on human health, these deficiencies have significant importance. The replacement cost for the drinking-water infrastructure in “fair” to “very poor” condition is \$25.9 billion, or \$2,082 per Canadian household.

Canada’s stormwater management systems are the best of the infrastructure classes covered in the report card. These were rated “very good”. Even here, however, 12.5% of stormwater installations surveyed fall below “good” condition, with that figure rising to 23.4% for stormwater pipes. The replacement cost for stormwater infrastructure in “fair” to “very poor” condition is \$15.8 billion, or \$1,270 per Canadian household.



A Penny Now, or a Dollar Later

The report card points to the cost of delaying infrastructure repairs, rehabilitation, or renewal. Under current practices (investment, operations, maintenance), most infrastructure, even if in good-to-very-good condition now, will require ever-increasing investment as it ages.

The report card emphasizes the importance of having an asset-management system in place to establish practices that will increase the longevity of the assets and optimize investments in maintenance and rehabilitation.



Needs Improvement: The State of Asset Management in Canada

When assessing the state of municipal infrastructure management, the report finds many municipalities lack the internal capacity to accurately assess the state of their infrastructure. This is not to say that the municipal sector lacks the wherewithal to undertake rigorous internal reviews of their assets; rather, that finite financial resources, staff and time preclude a more thorough, real-time evaluation of the state and performance of their physical infrastructure.

For example, about 30% of respondents had limited data on their water-treatment plants, reservoirs or pumping stations. A large percentage of municipalities reported having no data on the condition of their buried infrastructure: 41.3% for distribution pipes and 48.2% for transmission pipes. While it is clear that municipalities monitor the quality of their drinking water through rigorous testing and monitoring, evaluating the physical condition of their treatment plants and buried distribution networks remains a significant, on-the-ground challenge for many municipalities to undertake on their own.

With respect to roads, many respondents do not have regular condition-assessment programs: 41.2% reported that they do not have an inspection program for their highways, while the percentage dropped to between 20–25% for arterial, collector and local roads.

The need to support additional capacity at the municipal level is a crucial finding of this report, for all four asset categories.

Objectives and Methodology

The project's primary objective was to develop a rigorous, repeatable process for assessing the condition of Canada's infrastructure to inform the public, decision-makers and other stakeholders. This study provides useful qualitative information on municipal infrastructure and its management, which municipal governments can use to develop their asset-management capacity. Forecasting of trends or future conditions was not part of this study.

A total of 346 municipalities registered for the survey. The final analysis was based on responses by 123 municipalities distributed across all provinces. These municipalities represent from 40.7–59.1% of the Canadian population, depending on the infrastructure assets. This proportional representation made it possible to extrapolate the sample to provide a national estimate.

For a first report card, representation (on a population, demographics and geographical basis) exceeded the expectations of the Project Steering Committee. As this report card is repeated over several editions, a higher percentage of municipalities may participate, and results will be more representative nationally. Other types of infrastructure assets, such as bridges, buildings, facilities, public transit—and possibly privately owned public infrastructure, such as ports and airports—may be added in the future.

For More Information

For other highlights and a copy of the full report, go to canadainfrastructure.ca.



STAFF REPORT

R1

ENGINEERING & ENVIRONMENTAL SERVICES COMMITTEE MEETING OF OCTOBER 24, 2012

DATE: September 27, 2012 **FILE No:** 5520-20/ARS-ARW

FROM: Louise Knodel-Joy, Senior Environmental Technologist, Water Management Division

SUBJECT: Arbutus Ridge Water and Sewer System Management Amendment Bylaws

Recommendation/Action:

That it be recommended to the Board:

1. That "CVRD Bylaw No. 3641 – Arbutus Ridge Sewer System Management Amendment Bylaw, 2012" be forwarded to the Board for consideration of three readings and adoption.
2. That "CVRD Bylaw No. 3640 – Arbutus Ridge Water System Management Amendment Bylaw, 2012" be forwarded to the Board for consideration of three readings and adoption.

Relation to the Corporate Strategic Plan: Provides a reliable essential service.

Financial Impact: (Reviewed by Finance Division: *SEM*)

A three percent increase is proposed for the Arbutus Ridge Water and Sewer System user fees in 2013.

Background:

When negotiating the Utility Transfer of Assets Agreement with the Arbutus Ridge Strata Corporation, they requested that the CVRD raise utility rates 3% annually, as was the previous practice.

Submitted by,

Louise Knodel-Joy
Senior Engineering Technologist

LKJ/jlb

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Reviewed by: Division Manager:	
Approved by: General Manager:	



COWICHAN VALLEY REGIONAL DISTRICT

BYLAW No. 3640

**A Bylaw to Amend the Arbutus Ridge Water System Management
Bylaw No. 3305**

WHEREAS the Board of the Cowichan Valley Regional District established the management of the Arbutus Ridge Water System pursuant to "CVRD Bylaw No. 3305, cited as "CVRD Bylaw No. 3305 – Arbutus Ridge Water System Management Bylaw, 2009";

AND WHEREAS the Board of the Cowichan Valley Regional District deems it desirable to revise Schedules B and C of the bylaw.

NOW THEREFORE the Board of Directors of the Cowichan Valley Regional District, in open meeting assembled, enacts as follows:

1. CITATION

This Bylaw may be cited for all purposes as "**CVRD Bylaw No. 3640 - Arbutus Ridge Water System Management Amendment Bylaw, 2012**".

2. AMENDMENT

That Schedules B and C be deleted in their entirety and replaced with Schedules B and C attached to and forming part of this bylaw.

READ A FIRST TIME this _____ day of _____, 2012.

READ A SECOND TIME this _____ day of _____, 2012.

READ A THIRD TIME this _____ day of _____, 2012.

ADOPTED this _____ day of _____, 2012.

Chairperson

Corporate Secretary



SCHEDULE B

TO BYLAW NO. 3305

ARBUTUS RIDGE METERED WATER RATES

Water Rates and Charges

The **Consumer** of **District Water** supplied through **Water Meters**, shall pay the minimum charge set out in subsection (b) below.

Water Rates and Charges per Classification per six (6) month period:

CLASSIFICATION	USER CHARGES	
	Water Use	Charge
<u>Group A</u>		
- Single Family Dwelling – Per Dwelling	0 – 200 m ³	\$ 177.92
- Laundromat: Minimum charge for each washing machine	201-300 m ³	\$ 177.92 + \$1.25 per m ³ over 200 m ³
- Elementary/Middle School: Minimum charge per 20 students or portion thereof	301-400 m ³	\$ 302.92 + \$1.85 per m ³ over 300 m ³
	Over 400 m ³	\$ 487.92 + \$2.50 per m ³ over 400 m ³
<u>Group B</u>		
- Apartment/Suite – Per Unit	0 – 160 m ³	\$ 133.44
- Mobile/Modular Home Park – Per Unit	161-240 m ³	\$ 133.44 + \$1.25 per m ³ over 160 m ³
	241-320 m ³	\$ 233.44 + \$1.85 per m ³ over 240 m ³
	Over 320 m ³	\$ 381.44 + \$2.50 per m ³ over 320 m ³
<u>Group C</u>		
- Commercial - Minimum charge for each 10 employees or portion thereof per shift	0 – 130 m ³	\$ 177.92
	131-200 m ³	\$ 177.92 + \$1.25 per m ³ over 130 m ³
	200-260 m ³	\$ 302.92 + \$1.85 per m ³ over 195 m ³
	Over 260 m ³	\$ 487.92 + \$2.50 per m ³ over 260 m ³
<u>Group D</u>		
- Continuing Care Facility: Minimum charge for <u>each bed</u>	0 – 100 m ³	\$ 88.96
	101-150 m ³	\$ 88.96 + \$1.25 per m ³ over 100 m ³
	151-200 m ³	\$ 151.46 + \$1.85 per m ³ over 150 m ³
	Over 200 m ³	\$ 243.96 + \$2.50 per m ³ over 200 m ³

CLASSIFICATION	USER CHARGES		
	Water Use	Charges	
Group E			
- RV Trailer Park/Campground: Site Connected to Sewer: <u>Per serviced pad or site</u>	0 – 67 m ³	\$ 59.31	
	68-100 m ³	\$ 59.31	+ \$1.25 per m ³ over 67 m ³
- Restaurant: each 10 seats or patrons, or portion thereof	101-133 m ³	\$ 100.56	+ \$1.85 per m ³ over 100 m ³
- Hotel/Motel: per housekeeping unit	Over 133 m ³	\$ 161.61	+ \$2.50 per m ³ over 133 m ³
Group F			
- Bed & Breakfast/Rooming House: includes the minimum charge for a single family dwelling unit as defined in Group A above, plus a minimum charge per each Guest Room	0-40 m ³	\$ 35.58	
	41-60 m ³	\$ 35.58	+ \$1.25 per m ³ over 40 m ³
	61-80 m ³	\$ 60.58	+ \$1.85 per m ³ over 60 m ³
	Over 80 m ³	\$ 97.58	+ \$2.50 per m ³ over 80 m ³
Group G			
- RV Trailer Park/Campground:	0-20 m ³	\$ 17.79	
- Site not Connected to Sewer: Per pad or site	21-30 m ³	\$ 17.79	+ \$1.25 per m ³ over 20 m ³
	31-40 m ³	\$ 30.29	+ \$1.85 per m ³ over 30 m ³
	Over 40 m ³	\$ 48.79	+ \$2.50 per m ³ over 40 m ³
Group H			
- High School: Minimum charge per 20 students or portion thereof	0 – 270 m ³	\$ 222.40	
	271-405 m ³	\$ 222.40	+ \$1.25 per m ³ over 270 m ³
	406-540 m ³	\$ 391.15	+ \$1.85 per m ³ over 405 m ³
	Over 540 m ³	\$ 640.90	+ \$2.50 per m ³ over 540 m ³
Group I			
- Hotel/Motel: Per Room or Suite	0 – 50 m ³	\$ 44.48	
	51-75 m ³	\$ 44.48	+ \$1.25 per m ³ over 50 m ³
	76-100 m ³	\$ 75.73	+ \$1.85 per m ³ over 75 m ³
	Over 100 m ³	\$ 121.98	+ \$2.50 per m ³ over 100 m ³
Group J			
- Licensed Premises: Each 10 seats or patrons or portions thereof.	0 – 83 m ³	\$ 71.17	
	84-125 m ³	\$ 71.17	+ \$1.25 per m ³ over 83 m ³
	126-167 m ³	\$ 123.67	+ \$1.85 per m ³ over 125 m ³
	Over 167 m ³	\$ 201.37	+ \$2.50 per m ³ over 167 m ³
Group K			
- Golf Course: for potable water only.	Based on 3.5% of total water system operating budget		
Other			
The minimum charge and the volume of water to be apportioned for a six (6) month period for other types of development that, in the opinion of the Manager , do not fall within the above classifications, shall be determined by the General Manager of Engineering and Environmental Services and his decision shall be final.			
Aggregate Allotment - Where more than one of the above classifications including " Other " is in use, or intended for use, then the applicable charges shall be applied to each and every classification			

UNDETECTED LEAKS:

User Charges will be adjusted on a one-time forgiveness basis, where an undetected leak on the consumer's property has resulted in water usage greatly exceeding typical usage of water, according to the applicable classifications(s), and there is no indication that water was knowingly allowed to run to waste. Additionally, a cap of \$1,500.00 per owner is in place for subsequent leaks after the first "forgiveness" of a water overage charge. Written verification from the **Consumer** describing the nature of the leakage and the action taken to rectify the problem must be received by the **Manager** before the one-time forgiveness will be granted. The leakage problem must be rectified by the **Consumer** within 30 days upon discovery, or notification of the problem.

USER CLASSIFICATION DESCRIPTIONS

Single Family Dwelling: Applies to any connection servicing a single segregated self-contained residential dwelling used for, or intended for the domestic use of one or more individuals as a single housekeeping unit with cooking, living, sleeping and sanitary facilities including, but not limited to a townhouse, semi-detached, residential home, duplex and a cabin.

Apartment: Applies to any connection servicing a multiple occupancy residential building(s) with self-contained and segregated units consisting of two or more rooms used for, or intended for the domestic use by one or more individuals as a single housekeeping unit with cooking, living, sleeping and sanitary facilities.

Mobile/Modular Home Park: Applies to a connection servicing land used or occupied for the purposes of providing space for the accommodation of mobile homes either on a rental or ownership basis. A mobile home means any structure containing one dwelling whether ordinarily equipped with wheels, or not, that is designated, constructed or manufactured to be moved from one place to another by being towed, or carried, but not including travel trailers, campers, or other vehicles exempt from the provisions of the Mobile Home Act.

RV Trailer Park/Campground: Applies to any connection servicing land used, temporarily occupied for the purpose of providing space for the accommodation of recreational vehicles or recreational structures. A recreational vehicle or recreational structure means a vehicle, trailer, coach, tents, structure, or conveyance designed to travel, or be transported on a highway and constructed and equipped to be used as temporary living or sleeping quarters for travellers.

Where individual spaces for the above accommodations are connected directly to a **Sanitary Sewer** disposal system, the minimum charge shall be based on the charges set forth in the applicable schedule(s).

Where individual spaces or sites are not serviced directly by an individual and/or separate **Sanitary Sewer** disposal system, but have the use of common or centrally located sanitary facilities, the minimum charge shall be based on the charges set forth in the applicable schedule(s).

Hotel/Motel: Applies to any connection servicing a building or structure that contains sleeping units for the overnight accommodation of transient paying guests. Auxiliary assembly, commerce, entertainment, or restaurant uses as well as areas licensed to service alcoholic beverages and staff accommodation shall pay the charges according to the classification set forth in the applicable schedule(s).

Where units contain cooking facilities, the minimum charge shall be based on the charges set forth in the applicable schedule(s) per housekeeping or kitchenette unit.

Where units contain sleeping and sanitary facilities only, the minimum charge shall be based on the charges set forth in the applicable schedule(s) per room or suite.

Restaurant: Applies to any connection servicing a building or structure, or segregated self-contained unit used for, or intended to be used for, the commercial sale of refreshments, prepared or assembled food, and/or meals together with non-alcoholic beverages for sale to the public.

Licensed Premises: Applies to the connection servicing a licensed beverage establishment as governed by the Liquor Licensing Board of British Columbia, and includes, but is not limited to pubs, restaurants, eateries, lounges, cafeterias and private clubs where alcoholic beverages are served.

Laundromat: Applies to a connection servicing a building, self-contained unit, or separately owned business entity where washing machines are available for public use for a fee or charge.

Commercial: Applies to a connection servicing a complex, facility, or parcel of land used to manufacture, sell, repair goods, or provide a service including, but not limited to retail stores, offices, convenience store, service establishment, and light industrial.

Elementary School and High School: Applies to a connection servicing an institution of learning, or teaching facility, as defined by the School Act.

Continuing Care Facility: Applies to a connection servicing a multiple occupancy complex providing long-term care, and living accommodations that include residents requiring full-time professional care, including living, sleeping, cooking, and sanitary facilities, but not including an acute care facility.

Bed & Breakfast: Applies to any connection servicing a single family dwelling, with an accessory use for overnight accommodation for transient paying guests in which breakfast is the only meal served.

Rooming House: Applies to any connection servicing a single family dwelling with an accessory use of rooms for rent by individuals for living and sleeping, but with common cooking and sanitary facilities shared by the occupants.

Golf Course: For potable water usage only.



SCHEDULE C
TO CVRD BYLAW NO. 3305
UNMETERED WATER CHARGES

WATER RATES:

The **Consumer** of **Unmetered District Water** shall pay the charges set out below.

Water Rates and Charges per Classification per six (6) month period:

	<u>Charge</u>
Single Family Dwelling:	\$177.92
Apartment/Suite	133.44
Mobile Home Park:	133.44
Commercial:	
Minimum charge for each 10 employees or portion thereof per shift.	177.92
RV Trailer Park/Campground:	
<u>Site Connected to Sewer:</u> per serviced pad or site.	59.31
<u>Site Not Connected to Sewer</u> - per pad or site.	17.28
Hotel/Motel:	
a) Room or Suite: each room or suite.	44.48
b) Kitchenette or Housekeeping Unit:	59.31
Restaurants:	
Minimum charge for each 10 seats or patrons or portion thereof	59.31
Licensed Premises:	
Minimum charge for each 10 seats or patrons or portion thereof .	71.17
Laundromat: Minimum charge for each washing machine	177.92
Elementary/Middle School: Minimum charge for 20 students or portion thereof	177.92
High School: Minimum charge for 20 students or portion thereof	222.40
Continuing Care Facility: Minimum charge for each bed	88.96
Bed & Breakfast/Rooming House:	

Charge

The minimum charge for such facility shall include the minimum charge for a single family dwelling unit plus a minimum charge for each and every guest room .

a) Single Family Dwelling	177.92
b) Per guest room	35.58

Golf Course:

Based on potable water – Based on 3.5% of total water system operating budget

Other:

The minimum charge and the volume of water to be apportioned for a six (6) month period for other types of developments that, in the opinion of the **Manager**, do not fall within the above classifications shall be determined by the Manager of Engineering Services and his decision shall be final.

Aggregate Allotment:

Where more than one of the above classifications including “**Other**” is in use, or intended for use, then the applicable charges shall be applied to each and every classification.

Single Family Dwelling

Applies to any connection servicing a single segregated self-contained residential dwelling used for, or intended for the domestic use of one or more individuals as a single housekeeping unit with cooking, living, sleeping and sanitary facilities including, but not limited to a townhouse, semi-detached, residential home, duplex and a cabin.

Apartment:

Applies to any connection servicing a multiple occupancy residential building(s) with self-contained and segregated units consisting of two or more rooms used for, or intended for the domestic use by one or more individuals as a single housekeeping unit with cooking, living, sleeping and sanitary facilities.

Mobile/Modular Home Park:

Applies to a connection servicing land used or occupied for the purposes of providing space for the accommodation of mobile homes either on a rental or ownership basis. A mobile home means any structure containing one dwelling whether ordinarily equipped with wheels, or not, that is designated, constructed or manufactured to be moved from one place to another by being towed, or carried, but not including travel trailers, campers, or other vehicles exempt from the provisions of the Mobile Home Act.

RV Trailer Park/Campground:

Applies to any connection servicing land used, or temporarily occupied for the purpose of providing space for the accommodation of recreational vehicles or recreational structures. A recreational vehicle or recreational structure means a vehicle, trailer, coach, tents, structure, or conveyance designed to travel, or be transported on a highway and constructed and equipped to be used as temporary living or sleeping quarters for travelers.

Where individual spaces for the above accommodations are connected directly to a sanitary sewer disposal system, the minimum charge shall be based on the **Allotment** of water as set forth in the applicable schedule(s).

Where individual spaces or sites are not serviced directly by an individual and/or separate

sanitary sewer disposal system, but have the use of common or centrally located sanitary facilities, the minimum charge shall be based on the **Allotment** of water as set forth in the applicable schedule(s).

Hotel/Motel:

Applies to any connection servicing a building or structure, which contains sleeping units for the overnight accommodation of transient paying guests. Auxiliary assembly, commerce, entertainment, or restaurant uses as well as areas licensed to service alcoholic beverages and staff accommodation shall pay the charges according to the classification set forth in the applicable schedule(s).

Restaurant:

Applies to any connection servicing a building or structure, or segregated self-contained unit used for, or intended use for the commercial sale of refreshments, prepared or assembled food, and/or meals together with non-alcoholic beverages for sale to the public.

Licensed Premises:

Applies to a connection servicing a licensed beverage establishment as governed by the Liquor Licensing Board to British Columbia, and includes, but is not limited to pubs, restaurants, eateries, lounges, cafeterias and private clubs where alcoholic beverages are served.

Laundromat:

Applies to a connection servicing a building, self-contained unit, or separately owned business entity where washing machines are available to public use for a fee or charge.

Commercial:

Applies to a connection servicing a complex, facility, or parcel of land used to manufacture, sell, repair goods, or provide a service including, but not limited to retail stores, offices, convenience store, service establishment, and light industrial.

Elementary School and High School:

Applies to a connection servicing an institution of learning, or teaching facility, as defined by the School Act.

Continuing Care Facility:

Applies to a connection servicing a multiple occupancy complex providing long-term care, and living accommodations that include for residents requiring full-time professional care that include living, sleeping, cooking, and sanitary facilities, but not including an acute care facility.

Bed & Breakfast:

Applies to any connection servicing a single family dwelling, with an accessory use for overnight accommodation for transient paying guests in which breakfast is the only meal served.

Rooming House:

Applies to any connection servicing a single family dwelling with an accessory use of rooms for rent by individuals for living and sleeping, but with common cooking and sanitary facilities shared by the occupants.

Golf Course: For potable water usage only.



COWICHAN VALLEY REGIONAL DISTRICT

BYLAW No. 3641

**A Bylaw to Amend the Arbutus Ridge Sewer System Management
Bylaw No. 3306**

WHEREAS the Board of the Cowichan Valley Regional District established the management of the Arbutus Ridge Sewer System pursuant to "CVRD Bylaw No. 3306, cited as "CVRD Bylaw No. 3306 – Arbutus Ridge Sewer System Management Bylaw, 2009";

AND WHEREAS the Board of the Cowichan Valley Regional District deems it desirable to revise Schedule B to the bylaw.

NOW THEREFORE the Board of Directors of the Cowichan Valley Regional District, in open meeting assembled, enacts as follows:

1. **CITATION**

This Bylaw may be cited for all purposes as "**CVRD Bylaw No. 3641 - Arbutus Ridge Sewer System Management Amendment Bylaw, 2012**".

2. **AMENDMENT**

That Schedule B be deleted in its entirety and replaced with Schedule B attached to and forming part of this bylaw.

READ A FIRST TIME this _____ day of _____, 2012.

READ A SECOND TIME this _____ day of _____, 2012.

READ A THIRD TIME this _____ day of _____, 2012.

ADOPTED this _____ day of _____, 2012.

Chairperson

Corporate Secretary



SCHEDULE B

TO CVRD BYLAW NO. 3306

SEWER SERVICE CHARGES

(a) **Consumers** of **Sewer Services** shall pay the minimum billing set out in sub-section (b) below.

(b) Minimum Sewer Classification Charge per Six (6) month billing period

<u>Classification</u>	<u>Charge</u>
Single Family Dwelling – Per Dwelling	177.92
STEP System – Per dwelling	151.23
Apartment – Per Unit	151.23
Mobile Home Park – Per Unit	177.92
RV Trailer Park/Campground:	
a) <u>Site Connected to Sewer:</u> Per serviced pad or site	86.96
b) <u>Site not Connected to Sewer:</u> Per pad or site	17.79
Hotel/Motel:	
a) <u>Room or Suite:</u> - Per room or suite	71.17
b) <u>Kitchenette or Housekeeping Unit (per room or suite)</u>	106.75
Restaurants - Per seat:	10.68
Licensed Premises - per seat:	17.79
Laundromat: Minimum charge for each washing machine:	177.92
Commercial:	
Minimum charge for each 10 employees or portion thereof per shift	177.92
School - Minimum charge per classroom	177.92
Continuing Care Facility: Minimum charge for each bed	133.44
Bed & Breakfast/Rooming House: The minimum charge for such a facility shall include the minimum charge for a single family dwelling unit, plus a minimum charge for each and every guestroom.	
a) Single Family Dwelling:	177.92
b) Per guest room	71.17

Golf Course: Based on 3.5% of total sewer system operating budget.

Other There should be a minimum of 1 unit applied to each connection if the above calculation yields less than one, where calculation yields an uneven number round to the higher whole number

Single Family Dwelling:

Applies to any connection servicing a single segregated self-contained residential dwelling used for, or intended for the domestic use of one or more individuals as a single housekeeping unit with cooking, living, sleeping and sanitary facilities including, but not limited to a townhouse, semi-detached, residential home, duplex and a cabin.

Septic Tank Effluent Pumping (STEP):

Applies to a connection that pumps grey water and retains solids in a holding tank. The rate is calculated at 85% of the Single-family Dwelling rate to offset the cost of septic tank pump-outs (typically a maximum of every 5-years).

Apartment:

Applies to any connection servicing a multiple occupancy residential building(s) with self-contained and segregated units consisting of two or more rooms used for, or intended for the domestic use by one or more individuals as a single housekeeping unit with cooking, living, sleeping and sanitary facilities.

Mobile Home Park:

Applies to a connection servicing land used or occupied for the purposes of providing space for the accommodation of mobile homes either on a rental or ownership basis. A mobile home means any structure containing one dwelling whether ordinarily equipped with wheels, or not, that is designated, constructed or manufactured to be moved from one place to another by being towed, or carried, but not including travel trailers, campers, or other vehicles exempt from the provisions of the Mobile Home Act.

RV Trailer Park/Campground:

Applies to any connection servicing land used, temporarily occupied for the purpose of providing space for the accommodation of recreational vehicles or recreational structures. A recreational vehicle or recreational structure means a vehicle, trailer, coach, tents, structure, or conveyance designed to travel, or be transported on a highway and constructed and equipped to be used as temporary living or sleeping quarters for travelers.

Where individual spaces for the above accommodations are connected directly to a **Sanitary Sewer** disposal system, the minimum charge shall be based on the charges set forth in the applicable schedule(s).

Where individual spaces or sites are not serviced directly by an individual and/or separate **Sanitary Sewer** disposal system, but have the use of common or centrally located sanitary facilities, the minimum charge shall be based on the charges set forth in the applicable schedule(s).

Hotel/Motel:

Applies to any connection servicing a building or structure that contains sleeping units for the overnight accommodation of transient paying guests. Auxiliary assembly, commerce, entertainment, or restaurant uses as well as areas licensed to service alcoholic beverages and staff accommodation shall pay the charges according to the classification set forth in the applicable schedule(s).

Where units contain cooking facilities, the minimum charge shall be based on the charges set forth in the applicable schedule(s) per housekeeping or kitchenette unit.

Where units contain sleeping and sanitary facilities only, the minimum charge shall be based on the charges set forth in the applicable schedule(s) per room or suite.

Restaurant:

Applies to any connection servicing a building or structure, or segregated self-contained unit used for, or intended to be used for, the commercial sale of refreshments, prepared or assembled food, and/or meals together with non-alcoholic beverages for sale to the public.

Licensed Premises:

Applies to the connection servicing a licensed beverage establishment as governed by the Liquor Licensing Board of British Columbia, and includes, but is not limited to pubs, restaurants, eateries, lounges, cafeterias and private clubs where alcoholic beverages are served.

Laundromat:

Applies to a connection servicing a building, self-contained unit, or separately owned business entity where washing machines are available for public use for a fee or charge.

Commercial:

Applies to a connection servicing a complex, facility, or parcel of land used to manufacture, sell, repair goods, or provide a service including, but not limited to retail stores, offices, convenience store, service establishment, and light industrial.

School:

Applies to a connection servicing an institution of learning, or teaching facility, as defined by the School Act.

Continuing Care Facility:

Applies to a connection servicing a multiple occupancy complex providing long-term care, and living accommodations that include residents requiring full-time professional care, including living, sleeping, cooking, and sanitary facilities, but not including an acute care facility.

Bed & Breakfast:

Applies to any connection servicing a single family dwelling, with an accessory use for overnight accommodation for transient paying guests in which breakfast is the only meal served.

Rooming House:

Applies to any connection servicing a single family dwelling with an accessory use of rooms for rent by individuals for living and sleeping, but with common cooking and sanitary facilities shared by the occupants.

Other:

The volume of discharge to be apportioned for other types of developments that do not fall within the above classifications. Single-family residential equivalents shall be calculated at 1.18 m³ (259 lgal.) per day metered for calculated flow, rounded to the higher whole number.



C·V·R·D

STAFF REPORT

R2

ENGINEERING & ENVIRONMENTAL SERVICES COMMITTEE MEETING
OF OCTOBER 24, 2012

DATE: July 24, 2012

FILE NO: 5600-30-KVW/09

FROM: Louise Knodel-Joy, Senior Engineering Technologist

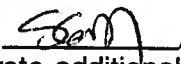
SUBJECT: Kerry Village Water Service Establishment Amendment Bylaw - Electoral Area A.

Recommendation:

That it be recommended to the Board:

1. That the *Certificate of Sufficiency*, confirming that a sufficient petition requesting inclusion into the Kerry Village Water System Service Area be received.
2. That "CVRD Bylaw No. 2491 – Kerry Village Water System Service Establishment Bylaw, 2004", be amended to include "Lot 1, Section 2, Range 7, Shawnigan District, Plan VIP 81051", and that the amendment bylaw be forwarded to the CVRD Board for three readings and adoption.

Relation to the Corporate Strategic Plan: essential service

Financial Impact: (Reviewed by Finance Division: )

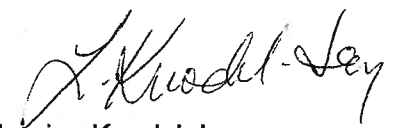
New users brought into the service area, will generate additional user fees, thereby improving the financial stability of this system. The property owner is responsible for all construction costs.

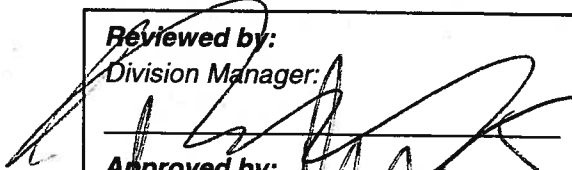

Background:

The owners of the above noted property are requesting inclusion into the Kerry Village Water System Service Area. The owners have been made aware that they must pay the water connection fee in the amount of \$3,500.00 per lot, plus user fees and parcel tax charges.

The amendment bylaw requires the approval of the service area voters before it can be adopted. In cases where a sufficient petition for service has been received, voter approval may be obtained by the Electoral Area Director consenting, in writing, to the of the Bylaw. Engineering & Environmental Services are responsible for the operation and administration of this service. A valid and sufficient Petition for Service has been received. The *Certificate of Sufficiency* and a site plan are attached for consideration.

Submitted by


Louise Knodel-Joy,
Senior Engineering Technologist
Water Management Division

Reviewed by: Division Manager:

Approved by: General Manager:


LKJ:jlb

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CERTIFICATE OF SUFFICIENCY

I hereby certify that the petition for inclusion in the *Kerry Village Water System Service Area* within a portion of Electoral Area A– Mill Bay/Malahat is sufficient, pursuant to section 797.4 of the *Local Government Act*.

DATED at Duncan, British Columbia)
this 24th day of August, 2012)

)
)
)



Kathleen Harrison, Deputy Corporate Secretary

Kerry Village Water System Service Area

Total Number of Parcels requesting inclusion in Service Area: (PID 026-683-032)	1
Net Taxable Value of All Land and Improvements of Parcels requesting inclusion in the Service Area:	\$481,000
Number of Petitions received:	1
Net Taxable Value of Petitions received (Land and Improvements):	\$481,000



**Covichan
Valley
Regional
District**

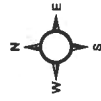
This map is compiled from various sources for internal use and is designed for reference purposes only.

The Regional District does not warrant the accuracy.

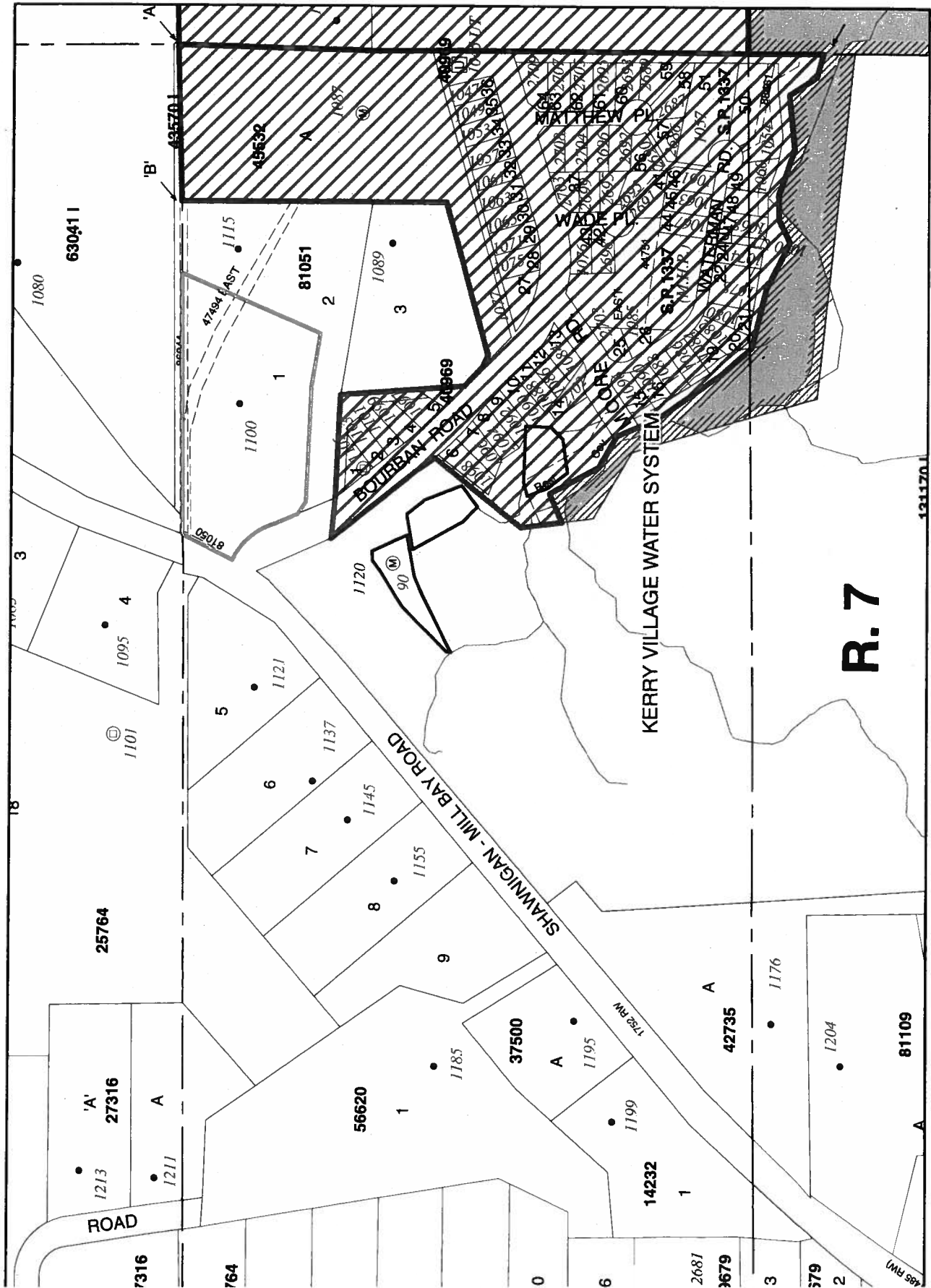
All persons making use of this compilation are advised that the boundaries shown are for convenience purposes only and that boundaries are not guaranteed.

The original Bylaws should be consulted for all purposes of interpretation and application of the Bylaws.

Printed: September 21, 2012



Scale: 1:3,852





STAFF REPORT

R3

ENGINEERING & ENVIRONMENTAL SERVICES COMMITTEE MEETING OF OCTOBER 24, 2012

DATE: October 2, 2012

FILE NO: 5600-30-WRW/01

FROM: Louise Knodel-Joy, Senior Engineering Technologist

SUBJECT: Woodley Range Water System Management Bylaws

Recommendation:

1. That the following bylaws be forwarded to the Board for consideration of three readings and adoption:
 - .1 CVRD Bylaw No. 3635 – Woodley Range Water System Management Bylaw, 2012
 - .2 CVRD Bylaw No. 3636 – Woodley Range Water System Parcel Tax Bylaw, 2012
 - .3 CVRD Bylaw No. 3637 – Woodley Range System Capital Reserve Bylaw, 2012

Relation to the Corporate Strategic Plan:

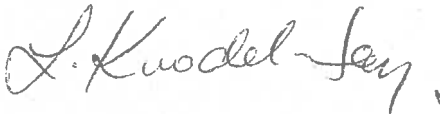
Financial Impact: (Reviewed by Finance Division:)

User fees for this system have been set at \$400 annually, or \$33.33 per month and the parcel tax will be \$800, which equates to \$66.67 monthly.

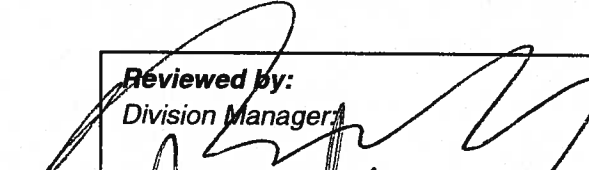
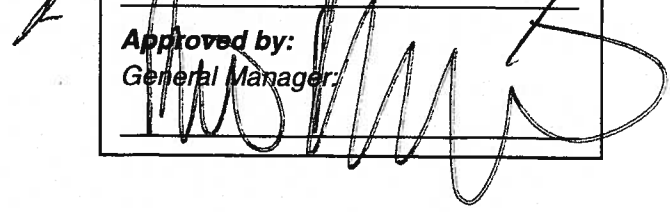
Background:

The Utility Transfer Agreement has been executed and the Establishment Bylaw for the above utility has been approved by the Ministry. Therefore, staff have now prepared the management bylaws to be forwarded to the Board for consideration of three readings and adoption. Proposed takeover of the water system is January 1, 2013.

Submitted by,



Louise Knodel-Joy
Senior Engineering Technologist
Water Management Division

Reviewed by: Division Manager:	
Approved by: General Manager:	

LKJ:jlb

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COWICHAN VALLEY REGIONAL DISTRICT

BYLAW No. 3635

**A Bylaw for the Regulation and Management of the
Woodley Range Water System**

WHEREAS the Board of the Cowichan Valley Regional District established the Woodley Range Water System Service Area under the provision of CVRD Bylaw No. 3616, cited as "*CVRD Bylaw 3616 - Woodley Range Water System Service Establishment Bylaw, 2012*", for the purpose of providing services to a defined portion of Electoral Area H – North Oyster/Diamond;

AND WHEREAS it is deemed necessary and expedient that provisions be made for the regulation and management of the water system, and for terms and conditions upon which water services may be provided, and for a tariff of charges for such services;

NOW THEREFORE the Board of Directors of the Cowichan Valley Regional District, in open meeting assembled, enacts as follows:

1. CITATION

This Bylaw may be cited for all purposes as "**Cowichan Valley Regional District Bylaw No. 3635 - Woodley Range Water System Management Bylaw, 2012**".

2. DEFINITIONS

In this bylaw, unless the context otherwise requires:

"Allotment" means the maximum amount of water that may be used by a classification of user to which the minimum user charge for a specific billing period is applied.

"Applicant" means an owner or his agent making application for water services and from whom the District may expect to receive revenue on a continuing basis for this service.

"Woodley Range Water System" means the water system currently servicing the **Woodley Range Water System Service Area**, including all **District** water supply plants, intakes, wells, outlets, equipment, water storage tanks and reservoirs, water supply lines, pumping stations, watermains, appurtenances, water service connections, water meters and all other waterworks designated for the supply and distribution of water together with all other works related to the operation of the system, including electrical pumps and components, control systems and signal cable and all lands appropriated for such purposes and uses.

"Woodley Range Water System Service Area" means the service area established and defined by bylaw within which the **District** manages and operates a Community Water System.

"Building Service" means a water pipe extending from the property line to the plumbing system at the building or buildings on the subject property whether for domestic, or fire use.

"Capable of Connection" means that the parcel of land abuts a street, lane, public water right-of-way or easement, upon or under which there is a main water pipe with excess capacity and that the service connection will have adequate cover at the property line.

"Committee" means a standing committee, comprised of representatives from the **Regional Board**, which the Engineering and Environmental Services Department reports to.

"Consumer" means the **Owner** or occupant of property which is serviced by, connected to and uses **District Water**.

"District" means the Cowichan Valley Regional District.

"District Water" means water carried by the **Woodley Range Water System**.

"Extension" means an extension to the main water pipe forming part of the **Woodley Range Water System**.

"Main Water Pipe" means a pipe forming part of the public distribution system.

"Manager" means the person duly appointed General Manager of the Engineering and Environmental Services Department by the **Regional Board**, or his designate.

"Metered Water" means **District Water** supplied to **Consumers** through meters.

"Owner" means the person or persons holding a fee simple or equitable interest in land.

"Parcel Tax" means an annual tax levied on each parcel of land within the **Woodley Range Water System Service Area** and as established by a separate bylaw.

"Private Water Supply System" means an assembly of pipes, fittings, valves, equipment and appurtenances that supplies water from a private source.

"Regional Board" means the Board of Directors of the Cowichan Valley Regional District

"Treasurer" means the person duly appointed Treasurer by the Regional Board, or his duly appointed delegate.

"Unit" means an "area within" a building which is segregated and self-contained and, in the case of multiple units, the units may be owned or rented by different persons or organizations.

"Unmetered Fire Line" means a **Water Service** supplying **Unmetered Water** directly to **Consumers** for purposes of fire protection and does not include a watermain serving fire hydrants owned and maintained by the **District**.

"Unmetered Water" means **District Water** supplied to **Consumers** without the use of meters.

"Water Charges" means the charges set out in Schedules A, B, C, D, E, F, and G to this bylaw.

"Water Meter" means a device used for measuring water consumption and used for revenue purposes by the **District**.

"Water Rates" means the rates set out in Schedules A, B, C, D, E, F, and G to this bylaw.

"Water Service" means the conduit connecting a watermain, which is part of the **Woodley Range Water System**, to a building or buildings whether for domestic or fire purposes and such conduit shall consist of a **Water Service Connection** and a **Building Service**.

"Water Service Connection" shall mean the water pipe and its integral appurtenances that are placed (and generally at right angles thereto) from the watermain to near the **Owner's** property line or edge of statutory right-of-way and includes the curb stop and meter.

"Water Service Connection Charge" means the charges as set out in Schedule A.

3. **ADMINISTRATIVE POLICY**

1. (a) The responsibility for the construction, operation and maintenance of the **Woodley Range Water System** is hereby vested in the **Manager** who shall operate the same under the established policy of the **Regional Board**.
- (b) No construction, operation or maintenance work of any kind or nature not specifically authorized by this bylaw shall be performed on the whole or any part of the **Woodley Range Water System** except as authorized in writing by the **Manager**.
- (c) **Ownership Of Water System** - All water pipes, connections, appurtenances or facilities required for water distribution to the **Owner's** property line which are constructed, whether at the **Owner's** expense or **District** expense in present or future public highways or within **District** right-of-way or property, shall be the property of the **District**.
2. (a) The **District** may supply **District Water** as circumstances, equipment and water supply permit.
- (b) No **District Water** shall be supplied to any parcel of land or buildings outside of the **Woodley Range Water System Service Area** except by special agreement with the **District**.

- (c) All reasonable efforts will be made to ensure a supply of **District Water** to the consumer; however, the **District** does not guarantee to the **Consumer** an uninterrupted supply of **District Water** or that any standard of water pressure, water quantity or water quality will be met or maintained nor shall any failure to provide an uninterrupted supply of **District Water** or to meet any such standard be construed as neglect on the part of the **District**.
3. Any person authorized by the **Manager** shall have free access at all reasonable times, and upon reasonable notice being given to all parts of every building, chamber or other facility to which **District Water** is supplied, to inspect, observe, measure, sample and test any **Building Service** and its appurtenances within or without the building in order to ascertain whether or not the provisions of this bylaw are being obeyed.
4. (a) The **Manager** may upon reasonable notice shut off water within all or any part of the **Woodley Range Water System**, however, in emergency situations, notice may not be given.
- (b) The **District** is not liable for damages caused by the breaking of any **Water Service**, watermain or appurtenance.
5. In the event of water shortage, the **Manager** may prescribe restrictions on the consumption, hours of consumption, and use of **District Water**.
6. Any person(s) before proceeding with, or authorizing, any construction which is proposed to be located under, across or along any watermain or other water works forming part of the **Woodley Range Water System** shall notify the **Manager** in writing of his intention to proceed with the same, and if, in the opinion of the **Manager**, it becomes necessary to support or relocate such watermain or other water works, the cost of supporting or relocating the watermain or other water works shall be charged against that person and the **Manager** shall have the power to supervise and direct the supporting or relocating of such watermains or other water works.
7. Any person(s) who has proceeded with, or who has authorized any construction which is located under, over, across or along any watermain or other water works forming part of the **Woodley Range Water System** shall be liable for any damage caused by such construction. If the damage is not remedied to the satisfaction of the **Manager** in a reasonable time as determined by him, the **Manager** may have such damage repaired, upon giving notice to such person(s), and the cost of the repairs shall be borne by such person(s).

4. WATER RATES, CHARGES AND REVENUES

1. (a) Revenues for the **Woodley Range Water System** may be raised by **Water Rates**, **Water Charges** and **Parcel Taxes**.
- (b) If in any fiscal year the revenues generated by the rates and charges set out in subsection (a) do not meet the expenditures of the **Woodley Range Water System Service Area**, the deficit may be covered by a duly authorized increase in any or all of the charges set out in subsection (a) for the succeeding fiscal year.
- (c) All revenue raised by the methods herein described or authorized shall be applied to the **Woodley Range Water System**.
2. (a) **Consumers** of **Metered Water** shall be billed on the basis of their consumption of **District Water** and shall be charged **Water Rates** in accordance with Schedule B.
- (b) **Consumers** of **Unmetered Water** shall pay the **Water Charges** set out in Schedule C.
- (c) **Consumers** with **Unmetered Fire Lines** shall pay the **Unmetered Fire Line** Rates set out in Schedule D.
- (d) Persons requiring the miscellaneous services set out in Part 8 of this bylaw shall pay the **Water Charges** set out in Schedule G for such services.
- (e) No charge will be made for the volume of **Unmetered District Water** used for fire protection purposes or the testing of fire protection equipment.
3. (a) The Rates and Charges set out in Schedules A, B, C, D, E, F and G shall be subject to periodic review by the **Manager** and the Electoral Area Services **Committee** may make recommendations on the revision of the said Schedules to the **Regional Board**.
- (b) Schedules A, B, C, D, E, F and G may be revised by bylaws enacted by the **Regional Board**.

5. METERED WATER SERVICE

1. (a) All **Water Services** shall be metered unless otherwise directed by the **Manager**.
- (b) All **Consumers** shall be responsible for providing suitable plumbing for the installation of a **Water Meter**.
- (c) The **Water Meter** shall be installed on the **Water Service Connection** in a readily accessible location in close proximity to the property lines or location approved by the **Manager**.
- (d) The rates shall be due and payable at the offices of the **District** on or before the date shown in Schedule E of this bylaw.

- (e) When a new **Water Service Connection** is installed, the water rate levied shall be prorated in accordance with appropriate charges set out in Schedule B and shall be computed as follows:
 - i) Existing building – from the month following the month in which the **Water Service Connection** is completed, or one month after the water application is completed.
 - ii) New building – two months after the insulation inspection for the building has been completed, or at the discretion of the **Treasurer**.
 - (f) **Water Meters** shall be installed, sealed, maintained, repaired and disconnected only by employees or agents of the **District**, or other persons duly authorized by the **Manager**.
 - (g) The **District** shall not be responsible for any damage to buildings or property occasioned by, or in the course of, the installation, maintenance, repair or disconnection of any **Water Meter** or **Water Service Connection** provided that reasonable care has been taken by the employees or agents of the **District**, or other persons duly authorized by the **Manager**, in the course of such installation, maintenance, repair or disconnection.
 - (h) Where a metered **Water Service** is in use, all **District Water** consumed on the property shall pass through the **Water Meter** authorized by the **District** for use on the property unless the water in question is authorized by this bylaw for unmetered use.
 - (i) Where an **Unmetered Fire Line** is provided, no water shall be taken other than for fire protection or testing of the fire protection system unless authorized by the **Manager**.
 - (j) Only one **Water Meter** shall be installed on a **Water Service** whether the **Water Service** serves a single building or a number of buildings on a lot, parcel or block of land unless otherwise approved by the **Manager**. For the purposes of this section, each half of a semi-detached dwelling and each unit of street townhouses or street link houses is to be considered a single building.
 - (k) If a **Consumer** now receiving **Unmetered Water** requests that a **Water Meter** be installed on his water service connection, the **Manager** may, at his discretion, comply with such request with all related cost to be borne by the **Consumer**.
 - (l) At the time of applying for an Application for **Water Service**, the **Applicant** shall deposit an amount equal to the **Water Service Connection Charge** plus the **Manager's** estimated cost of providing the **Water Service Connection**.
2. (a) If the **Manager** directs that the **Water Meter** be installed in a meter chamber, the meter chamber shall be constructed and maintained by the **Consumer** in a manner satisfactory to the **Manager** and shall be kept accessible and safe to the employees or agents of the **District**.

- (b) The **Consumer** shall pump all water from the meter chamber if required by the **Manager**.
 - (c) The size of **Water Meters** to be installed shall be approved by the **Manager**.
 - (d) Unless otherwise approved by the **Manager**, no pipe connection shall be made to a **Water Service** other than after the outlet side of a **Water Meter**, except where required by the **Manager**, properly valved and sealed by-passes around the **Water Meter** shall be provided by and at the expense of the **Consumer**.
 - (e) **Consumers** shall immediately notify the **Manager** of any breakage, stoppage or irregularity in a **Water Meter** and/or a **Building Service** and/or the plumbing system or fixtures within the building or buildings.
3. (a) All **Water Meter** readings shall be performed under the co-ordination and control of the **Manager**.
- (b) **Water Meter** readings may be performed by duly authorized employees or agents of the **District** who must carry with them, while performing **Water Meter** reading duties, identification designating them as employees or agents of the **District**.
 - (c) **Consumers** shall provide to the duly authorized employees or agents of the **District** access to buildings, chambers or other facilities in which **Water Meters** are situated at all reasonable hours and shall facilitate such access in all reasonable ways.
 - (d) **Water Meters** shall be read annually, semi-annually, quarterly, bi-monthly, monthly or at any interval deemed necessary by the **Manager**.
 - (e) The **Treasurer** may estimate the quantity of water used by the **Consumer** since the date of the last accurate meter reading, or the last satisfactory estimate of consumption, and bill the **Consumer** accordingly, under circumstances where:
 - (i) the **Water Meter** is broken, stopped or irregular;
 - (ii) the **Water Meter** or meter seal has been disconnected, altered or tampered with in any way;
 - (iii) the **Water Meter** has been incorrectly read;
 - (iv) the **Water Meter** reading has been incorrectly recorded;
 - (v) a **Water Meter** by-pass has been used or the by-pass seal has been disconnected, altered or tampered with;
 - (vi) the person duly authorized to do so has been unable to obtain a **Water Meter** reading;
 - (vii) it is deemed necessary by the **Treasurer** for any other circumstances.
 - (f) Where the quantity of water used by a **Consumer** has been estimated pursuant to subsection (e), the **Treasurer** may, at the time of the first accurate meter reading subsequent to such estimate, make a new estimate of the quantity of water used by the **Consumer** and increase or decrease the billing to the **Consumer** accordingly.

- (g) Under circumstances where it is in the opinion of the **Manager** expedient to allow a **Consumer** to run water continuously, the **Manager** may authorize such usage and in such cases the **Treasurer** may adjust the **Consumer's** metered billing to conform with the **Consumer's** normal pattern of water use.
- 4. (a) A **Consumer**, upon written application to the **Manager** may have his **Water Meter** tested.
- (b) Every application for testing shall be accompanied by a deposit of the fee for testing **Water Meters** set out in Schedule G.
- (c) If the **Water Meter** is shown by the test to measure the flow of water within AWWA specifications, the **Consumer** shall be charged the fee for the test set out in Schedule G and the deposit set out in Section 1 shall be credited against that charge.
- (d) If the **Water Meter** is shown by the test to measure the flow of water outside AWWA specifications, whether high or low, no fee shall be charged for the test, the **Consumer's** deposit shall be returned and the **Consumer's** water bill adjusted in an amount to be determined by the **Treasurer** and the **Water Meter** shall be replaced or repaired at the cost of the **District**.

6. WATER SERVICE CONNECTION

- 1. (a) A person desiring **District Water** and who owns or occupies a building(s) on lands within the **Woodley Range Water System Service Area**, which abuts a watermain that is a part of the **Woodley Range Water System**, shall apply to have his building(s) connected to the watermain.
- (b) No connection shall be made to the **Woodley Range Water System** until an Application for **Water Service** has been completed and approved by the **Manager**.
- (c) An Application for **Water Service** shall be completed on a form provided by the **Manager**, and the information shall be certified to be correct and signed by the **Applicant** or his agent, and shall be completed and approved at least three weeks prior to the date by which connection to the **Woodley Range Water System** is requested, or as deemed a reasonable time by the **Manager**.
- (d) Where a **Water Service Connection** is to be installed as part of an **Unmetered Fire Line**, or for any use other than single family residential use, or where the proposed **Water Service Connection** is greater than 25 mm in diameter, detailed plans of the **Water Service** or **Unmetered Fire Line** acceptable to the **Manager** shall be submitted with each Application for **Water Service**.
- (e) An Application for **Water Service** shall be accompanied by a payment equal to the **Water Service Connection** charge plus a deposit in accordance with the conditions and requirements as set out in Schedule A. The deposit shall be applied against the actual cost of the **Water Service Connection** installation.

- (f) The **Manager** may refuse approval of an Application for **Water Service** where, in his opinion, the **Woodley Range Water System** may be adversely affected, where, in his opinion, there is insufficient water supply available or where a watermain does not abut the **Applicant's** lands.
 - (g) Every **Water Service Connection** shall be installed prior to installation of the **Building Service**. The **District** shall not be responsible for meeting the location or for connecting to an existing **Building Service** installed prior to the installation of the **Water Service Connection**.
2. An Application for **Water Service** must be completed prior to connecting the **Building Service** to the **Water Service Connection** for each separate **Water Service Connection** in housing developments built on lands subject to registered plans of subdivision where the **Water Service Connection** has been provided by the subdivider. The Application for **Water Service** will be issued at a charge set forth in Schedule A to the subdivider under these circumstances.
3. (a) Where the **Owner** of property wishes to re-use an abandoned **Water Service Connection** that previously served a building on the **Owner's** property, the **Owner** shall apply to re-use the **Water Service Connection** and such application shall require the inspection of the **Water Service Connection**. The **Owner** shall pay the inspection fee set out in Schedule A, expose the **Water Service Connection** and prepare it for inspection, and the **Manager** may, upon inspecting such **Water Service Connection**, refuse to allow the re-use of it if, in the **Manager's** opinion, it is defective. The **Manager's** opinion on this matter shall be final.
- (b) Where the **Manager** has deemed an abandoned **Water Service Connection** defective, the **Owner** shall apply for a new **Water Service Connection** and pay the charge or deposit as set out in Schedule A.
4. (a) **Building Services** shall be installed in accordance with the requirements of the British Columbia Plumbing Code, as amended from time to time, and shall be constructed by the **Owner** entirely at the **Owner's** expense.
- (b) The **Building Service** shall be maintained and repaired by the property **Owner** at his sole expense. Whenever a malfunction occurs in the **Building Service** or **Water Service Connection**, the **Owner** or occupier of the premises served shall first determine that the failure is not located in the **Building Service** before notifying the **Manager** who shall, as soon as practicable, arrange to have the **Water Service Connection** restored to serviceable condition.
5. (a) All work involved in the installation and maintenance of **Water Service Connections** shall be performed only by duly authorized employees or agents of the **District**.
- (b) Every **Water Service Connection** is to be laid, as nearly as practicable, in a generally straight line and at a right angle to the watermain.
- (c) Where the **Applicant** for a **Water Service Connection** indicates in his application a desired location for the **Water Service Connection**, the **Water Service**

Connection will be located as indicated providing the proposed location is approved by the **Manager**.

- (d) Where the **Applicant** for a **Water Service Connection** does not indicate in his application a desired location for the **Water Service Connection**, the **Water Service Connection** will be located as determined by the **Manager** and if the **Applicant** subsequently requires a relocation of the **Water Service Connection**, such relocation shall be at the expense of the **Applicant**.
 - (e) No **Water Service** shall be installed in, over or across the property of another person or located on an easement in favour of one **Owner** to another except by the written consent of the **Owners** concerned and the approval of the **Manager**.
 - (f) Only one **Water Service** shall be installed for each lot, block or parcel of land unless otherwise approved by the **Manager**.
 - (g) A **Water Service** shall be installed to each unit of semi-detached buildings, street townhouses and street link houses, except for townhouses registered under the British Columbia Strata Property Act.
 - (h) Where more than one lot, block or parcel of land under separate ownership are served by a single **Water Service**, the **Manager** may order the affected **Consumers** to disconnect from the single **Water Service** and to conform to Item f above, and all costs including those for installing new **Water Service Connections** shall be borne by the **Consumers**.
6. When a **Consumer** requires the **Water Service Connection** to his land or premises to be replaced, the existing **Water Service Connection** shall be disconnected and the cost of disconnecting the **Water Service Connection** as set out in Schedule A, shall be borne by the **Consumer**.
7. When the **Manager** determines that a **Water Service Connection** is no longer required and can be abandoned, the **Water Service Connection** shall be disconnected at the watermain and the cost of the disconnection, as set out in Schedule A, shall be borne by the **Owner** of the lot, block or parcel of land, which the **Water Service Connection** served, or was intended to serve or as otherwise directed by the **Manager**.
8. (a) The **Consumer** is responsible for the repair or replacement of a leaking or defective **Building Service** or appurtenance and if, after written notice, it is not remedied in reasonable time, the water supply may be temporarily interrupted until the necessary repairs are completed to the satisfaction of the **Manager** and the cost of such repair or replacement shall be borne by the **Consumer**.
- (b) The **Manager** may turn off or restrict the supply of water to any building in which any leaking or defective pipe, tap or fixture, or any cross connection exists and shall require that the pipe, tap or fixture be repaired or replaced by the **Consumer** in such manner as the **Manager** may approve before the water is turned fully on again.

7. USE OF WATER SERVICE FOR FIRE PROTECTION

1. (a) No person other than duly authorized employees or agents of the **District** or Local Fire Department shall operate or use any **District** or private fire hydrant.
- (b) The **Manager** may, by means of a "Hydrant Permit" issued by him, authorize the use of a specified **District** or private hydrant for a specified time under specified conditions, including the supervision of such use by the **Manager**, at the charges set out in Schedule F.
2. (a) The **Manager** may approve the supply of **District Water** to **Consumers** within the **Woodley Range Water System Service Area** who have **Unmetered Fire Lines** for fire protection purposes and such water may serve private fire hydrants, automatic sprinkler systems and standpipes.
- (b) An **Unmetered Fire Line** shall be separate from the domestic **Water Service**. An **Unmetered Fire Line** and a **Water Service Connection** may be combined within a public road allowance or easement providing separation takes place within the public road allowance or easement and providing a valve is installed on each branch within the public road allowance or easement.
- (c) An **Unmetered Fire Line** whether separate or combined with a domestic **Water Service** as in (b), shall be isolated to prevent back flow in accordance with the current British Columbia Building Code and the British Columbia Plumbing Code and other applicable regulations.
- (d) No **Private Water Supply System** shall be interconnected with the **Woodley Range Water System**.
- (e) Private fire hydrants shall be maintained by the **Consumers** thereof to the satisfaction of the **Manager** and such **Owners** may be required from time to time to establish to the satisfaction of the **Manager** that such hydrants are sound, do not leak and are in good operating order.
- (f) **Unmetered fire lines** shall be utilized for no other purpose than fire fighting without written permission from the **Manager**.

8. MISCELLANEOUS SERVICES AND REQUIREMENTS

1. (a) The **Manager** shall at the request of a **Consumer** turn the **Consumer's** supply of **District Water** "off" or "on" and the **Consumer** shall pay a fee for this service as prescribed in Schedule G.
- (b) A **Consumer** who has had his supply of **District Water** turned off shall not be required to pay the **Water Charges** while such supply is turned off, provided the "water off" charges as described in Schedule G have been paid.
2. The **Treasurer** shall, upon written request in respect to each separate parcel of land or buildings, furnish any **Applicant** with a written verification showing the arrears of **Water Charges** due on, or in respect of, any parcel of land or buildings up to the date to which such water charges were last computed, the duration of the last billing period, and the net amount billed during that period.
3. In the event of a **Building Service**, an **Unmetered Fire Line** located on private property, or a private fire hydrant becoming frozen, the **Consumer** shall notify the **Manager** and shall take steps to have such **Building Service**, Fire Line or hydrant thawed. The repair costs for damages caused by the thawing operation shall be assumed by the **Consumer**.
4. (a) Anti-tampering devices shall be installed on hydrants when deemed necessary by the **Manager**.
- (b) Where anti-tampering devices are installed on hydrants in new developments such as industrial or residential subdivisions, the cost of purchasing, installing and maintaining such devices shall be borne by the developer or **Owner**.
5. Plants, shrubs, trees, hedges, fences and other structures shall not be so close to a meter box, hydrant or valve box as to obstruct the siting of, or access to, the hydrant, air relief, **Water Meter**, or valve box by duly authorized employees or agents of the **District**.
6. A driveway shall be constructed no closer than 1 metre from a hydrant.

9. BILLING & COLLECTING WATER RATES & WATER CHARGES

1. (a) All **Water Rates** and **Water Charges**, as set out in Schedules B and C, shall be payable for water consumed and services provided and shall be due and payable when rendered.
- (b) Regular billings for **Water Charges** may be rendered annually, semi-annually, quarterly, bi-monthly, monthly or at any other periodic interval as set out in Schedule E, or as determined by the **Manager**.
- (c) The **Treasurer** may with reasonable notice advance or delay any regular billing of **Water Rates** or **Water Charges**.

- (d) To protect the **District** against potential losses from unpaid water billings, the **Treasurer** may, at his discretion, demand in writing, a security deposit by way of cash, certified cheque, letter of credit or guarantee from an **Owner** from whom delinquent charges and fees cannot be applied to property taxes.
 - (e) The amount of the security deposit shall be no less than an amount equal to a **Consumer's** estimated water bill for a period of 180 days.
2. (a) All water bills shall be distributed to the **Consumer** by ordinary, prepaid mail or by any other means as deemed expedient and necessary by the **Treasurer**.
- (b) **Water Rates** and **Water Charges** may at the discretion of the **Treasurer** be charged and billed to:
- (i) the person requesting that water services be provided, or
 - (ii) the person in occupation of the building serviced by the **Woodley Range Water System**, or
 - (iii) the **Owner** of the building served by the **Woodley Range Water System**.
- (c) All **Water Rates** and **Water Charges** for services rendered to buildings having multiple units shall be charged and billed to the **Owner** of the property unless otherwise directed in writing by the **Treasurer**.
- (d) All **Water Rates** and **Water Charges** for services rendered to buildings registered under The Condominium Act shall be billed to the Condominium Corporation unless otherwise directed in writing by the **Treasurer**.
- (e) Payment may be made, with no additional service charge, by personal cheque through the mail, by personal cheque, cash or debit in person at the **District** office or at any location or via internet or telephone banking as directed by the **Treasurer**.

10. EXTENSIONS TO THE LOCAL SERVICE (WATER SUPPLY) AREA

1. (a) Applications and Fees:
Where, after a review of a request for servicing, the **Manager** has determined the need for an **Extension** to the **Woodley Range Water System** in order to provide **District Water** to property located within the boundaries of the Woodley Range Water System Service Area, the **Owner** of the property shall make written application for an **Extension** to the **Manager**.

The application shall be accompanied by the fee as set out in Schedule A.

(b) Approval:

Following a review of the proposed **Extension** of the **Woodley Range Water System** the **Manager** shall advise the **Applicant** in writing if the **Extension** is approved or denied.

(c) Conditions:

An approved **Extension** to the **Woodley Range Water System** may proceed provided the **Applicant** complies with the following conditions:

- i. The **Applicant** shall complete a **Water Service Connection** Application for each and every **Unit** or parcel of land to be serviced together with the applicable **Water Service Connection Charge**.
- ii. Where the **Manager** concludes the **Extension** will be undertaken by the **District**, the **Applicant** shall deposit with the **District** monies in the amount of the estimated cost of both the **Extension** and the required **Water Service Connection** as determined by the **Manager**.
- iii. Where the **Manager** grants a request by the **Applicant** for an **Extension** to be undertaken by others considered in the opinion of the **Manager** to be professionally competent, then the **Applicant** shall ensure that the work complies with the plans and specifications submitted by the **Applicant** and approved for construction by the **Manager**. Following completion of the **Extension** and other related work, the **Applicant** shall submit "As Constructed" drawings in a format acceptable to the **Manager** together with written verification that the completed work complies with the requirements of the **District**. The **Applicant** shall guarantee the work for a period of two years from the date this work is accepted by the **Manager**. The **Manager** may require certification of the above by a Professional Engineer registered in the Province of British Columbia.
- iv. The pipe size of the **Extension** shall not have less than a 150 mm inside diameter and shall include all appurtenances as determined by the **Manager**, including, but not limited, to main line valving and fire hydrants. The **Manager** may allow a 100 mm inside diameter **Extension** on a cul-de-sac, which in the opinion of the **Manager** has fire protection.
- v. The point at which the **Extension** may connect to the **Woodley Range Water System** shall be determined by the **Manager**.
- vi. The **Extension** to the **Woodley Range Water System** shall extend across the entire frontage of the property to be serviced by the **Extension** unless otherwise approved in writing by the **Manager**.
- vii. The final cost to the **Applicant** shall include all costs directly or indirectly associated with the **Extension** including, but not limited to the following items:
 - design
 - preparation of drawings, specifications and tender documents
 - approval applications to other agencies

- survey and layout
- legal fees
- supervision and inspection
- site restoration
- upgrade of the Service Area to accommodate the proposed development.
- testing, disinfection and sampling.

11. OFFENCES AND SANCTIONS

1. Every person who:

- (a) hinders or interrupts, or causes or procures to be hindered or interrupted, the **District**, or any of its officers, contractors, employees or agents, in the exercise of any of the powers conferred by this bylaw;
- (b) lets off or discharges water so that the water runs to waste out of the **Woodley Range Water System** unless duly authorized to do so, in writing, by the **Manager**;
- (c) being a consumer, tenant, occupant, or inmate of any house, building or other place supplied with water from the **Woodley Range Water System**, lends, sells, or disposes of the water, gives it away, permits it to be taken or carried away, uses or applies it to the use or benefit of another, or to any use and benefit other than his own, increases the supply of water agreed for, or improperly wastes the water;
- (d) without lawful authority, opens or closes or tampers with any hydrant, valve, curb stop or other appurtenances or obstructs the free access to any hydrant, valve, service box, chamber, pipe, or hydrant-chamber or other appurtenances by placing on it any building material, rubbish, or other obstruction;
- (e) throws or deposits any injurious, noxious or offensive matter into the water of the **Woodley Range Water System**, or upon the ice, if the water is frozen, or in any way fouls the water or commits any damage, or injury to the works, pipes, or water, or encourages the same to be done;
- (f) removes or alters any **Water Meter** or meter seal or opens any **Water Meter** bypass placed upon any **Building Service** or connected therewith, within or without any building or other place, so as to lessen or alter the amount of water registered;
- (g) lays or causes to be laid any pipe or main to communicate with any pipe or main of the **Woodley Range Water System**, or in any way obtains or uses the water without the written consent of the **Manager**;
- (h) obstructs or refuses entry to any employee or agent of the **District** in the discharge of any duty under this bylaw;
- (i) establishes, maintains or uses any connection to any part of the **Woodley Range Water System** whereby foreign matter, non-potable water, or water from a **Private Water Supply System** may enter the **Woodley Range Water System**;

- (j) fails to notify the **Manager** of any breakage, stoppage or irregularity in any **Water Meter** for which he is responsible;
 - (k) fails to obey any restriction on consumption, hours of consumption and use of water pursuant to Part II, Section 5 of CVRD Bylaw No. 3209 - Ticket Information Authorization Bylaw, 2008; or
 - (l) contravenes any section of this bylaw, is guilty of an offence and on summary conviction is liable to a fine of not more than \$2,000.00 or may be imprisoned, without the option of a fine, for a term of not more than one month.
2. In addition to all other sanctions and remedies provided in this bylaw, the **Manager** may turn off or restrict the supply of water to any **Consumer** where such **Consumer** has violated any of the provisions of this bylaw and may refuse to restore normal service until the violation complained of has been terminated or remedied.
3. That pursuant to the Local Government Act, any rates, charges and/or fees which remain unpaid after December 31 in any year shall be deemed to be taxes in arrears on the property concerned, with interest on those taxes in arrears calculated in accordance the Local Government Act.

12. REMAINDER OF BYLAW TO REMAIN INTACT:

In the event that any portion of this bylaw is declared *ultra vires* by a Court of competent jurisdiction, then such portion shall be deemed to be severed from the bylaw to the intent that the remainder of the bylaw shall continue in full force and effect.

READ A FIRST TIME this _____ day of _____, 2012.

READ A SECOND TIME this _____ day of _____, 2012.

READ A THIRD TIME this _____ day of _____, 2012.

ADOPTED this _____ day of _____, 2012.

Chairperson

Corporate Secretary



SCHEDULE A
TO CVRD BYLAW NO. 3635
WATER SERVICE CONNECTION CHARGES

1. Water Service Connection

.1 EXISTING LOT (permits servicing of one unit or building).

- (a) An application for **Water Service** shall be accompanied by a payment equal to the **Water Service Connection Charge** of:

19-mm diameter connection	\$300.00
25-mm diameter connection	\$450.00

plus a deposit in the amount of the **Manager's** estimate to complete such works. The above charges and deposit must be received by the Cowichan Valley Regional District before the work can be scheduled. The deposit will be applied against the actual cost of the **Water Service Connection** installation.

- (b) Where the **Water Service Connection** has been installed by the subdivider entirely at his cost and the **Water Service Connection Charge** for each connection has been prepaid, the **Applicant** for **Water Service** shall not be required to pay any additional fees.

.2 EXISTING LOT TO BE SUBDIVIDED:

(a) Lot presently serviced:

- *First lot exempt n/a
- Each additional lot created\$3,500.00

*Where the existing **Water Service Connection** is not utilized, the **Subdivider** will pay a **Water Service Connection Charge** of \$300.00

(b) Lot not presently serviced:

- First lot...\$300.00
- Each additional lot created\$3,500.00

- (c) Pre-installed Water Connection – where the **Water Service Connection** has been installed by the subdivider entirely at his own cost, but the **Water Service Connection Charge** has not been prepaid, then the **Applicant** for **Water Service** shall be required to pay the **Water Service Connection Charge** of \$3,500.00.

.../2

.3 ADDITIONAL UNITS OR BUILDINGS:

Where a **Water Service Connection** is to be installed to additional **Units** or buildings on an existing lot and the lot is:

- (a) Vacant: First **Unit** or building..... n/a
(included under Sub-Section 1.1)
Each additional unit or building.....\$3,500.00
- (b) Presently Occupied and Serviced
Each additional **Unit** or building.....\$3,500.00

2. Disconnection of a Water Service Connection

Where a **Water Service Connection** is to be abandoned and must be disconnected as determined by the **Manager**, the cost to the **Owner** of the property serviced shall be based on the actual cost to complete the work required, **plus a 10% administration charge**.

3. Re-use of Abandoned Water Service Connection

Inspection fee of previously abandoned or disused **Water Service Connection**: \$50.00

4. Extension to Service Area

Where an **Extension** to the **Woodley Range Water System** is required, the **Owner** of the property to be serviced shall, upon application for an **Extension**, pay the fee as calculated below:

.1 Applications to Serve Residential Developments:

- A fee of \$500.00 plus \$50.00 per dwelling unit to be created by the development.

.2 Applications to Serve Industrial and Commercial Developments:

- A fee of \$500.00 plus \$100.00 per hectare (or part thereof) of land proposed to be serviced.



SCHEDULE B

TO CVRD BYLAW NO. 3635

METERED WATER RATES AND CHARGES

The **Consumer** of **District Water** supplied through **Water Meters**, shall pay the minimum charge set out in subsection (b) below. A 10% discount will be applied for timely payment.

Water Rates and Charges per Classification per six (6) month period:

CLASSIFICATION	USER CHARGES			
	Water Use	Charge		
Group A				
Single Family Dwelling: Per Dwelling	0 - 100 m ³	\$	200.00	
Laundromat: Minimum charge for each washing machine	101 - 200 m ³	\$	200.00 + 1.00 per m ³ over	200 m ³
Elementary/Middle School:	201 - 300 m ³	\$	300.00 + 1.50 per m ³ over	300 m ³
Minimum charge per 20 students or portion thereof	over 300 m ³	\$	450.00 + 2.25 per m ³ over	400 m ³
Group B				
Apartment: Per Unit	0 - 75 m ³	\$	150.00	
Mobile/Modular Home Park: Per Unit	76 - 150 m ³	\$	150.00 + 1.00 per m ³ over	160 m ³
	151 - 225 m ³	\$	225.00 + 1.50 per m ³ over	240 m ³
	over 225 m ³	\$	337.50 + 2.25 per m ³ over	320 m ³
Group C				
Commercial:	0 - 60 m ³	\$	120.00	
Minimum charge for each 10 employees or portion thereof per shift	61 - 120 m ³	\$	120.00 + 1.00 per m ³ over	130 m ³
	121 - 180 m ³	\$	180.00 + 1.50 per m ³ over	195 m ³
	over 260 m ³	\$	270.00 + 2.25 per m ³ over	260 m ³
Group D				
Continuing Care Facility:	0 - 50 m ³	\$	100.00	
Minimum charge for each bed	51 - 100 m ³	\$	100.00 + 1.00 per m ³ over	100 m ³
	101 - 150 m ³	\$	150.00 + 1.50 per m ³ over	150 m ³
	over 150 m ³	\$	225.00 + 2.25 per m ³ over	200 m ³
Group E				
RV Trailer Park/Campground-Site Connected to Sewer:	0 - 33 m ³	\$	66.67	
(Per service pad or Site)	34 - 66 m ³	\$	66.67 + 1.00 per m ³ over	67 m ³
Restaurant: Per 10 seats or patrons, or portion thereof	67 - 99 m ³	\$	99.67 + 1.50 per m ³ over	100 m ³
Hotel/Motel: per housekeeping unit	over 99 m ³	\$	149.17 + 2.25 per m ³ over	133 m ³

CLASSIFICATION	USER CHARGES				
	Water Use		Charge		
Group F Bed & Breakfast/Rooming House: Includes the minimum charge for a single family dwelling unit as defined in Group A above, plus a minimum charge per each Guest Room	0 - 20 m ³	\$ 40.00			
	21 - 40 m ³	\$ 40.00 + 1.00 per m ³ over 40 m ³			
	41 - 60 m ³	\$ 60.00 + 1.50 per m ³ over 60 m ³			
	over 60 - m ³	\$ 90.00 + 2.25 per m ³ over 80 m ³			
Group G RV Trailer Park/Campground-Site not Connected to Sewer: Per service pad or Site	0 - 10 m ³	\$ 20.00			
	11 - 20 m ³	\$ 20.00 + 1.00 per m ³ over 20 m ³			
	21 - 30 m ³	\$ 30.00 + 1.50 per m ³ over 30 m ³			
	over 30 - m ³	\$ 66.67 + 2.25 per m ³ over 40 m ³			
Group H High school: Minimum charge per 20 students or portion thereof per shift	0 - 125 m ³	\$ 250.00			
	126 - 250 m ³	\$ 250.00 + 1.00 per m ³ over 270 m ³			
	251 - 375 m ³	\$ 375.00 + 1.50 per m ³ over 405 m ³			
	over 375 - m ³	\$ 562.50 + 2.25 per m ³ over 540 m ³			
Group I Hotel/Motel: per room or suite	0 - 25 m ³	\$ 50.50			
	26 - 50 m ³	\$ 50.50 + 1.00 per m ³ over 50 m ³			
	51 - 75 m ³	\$ 75.00 + 1.50 per m ³ over 75 m ³			
	over 75 - m ³	\$ 112.50 + 2.25 per m ³ over 100 m ³			
Group J Licensed Premises: Per 10 seats or portion thereof	0 - 40 m ³	\$ 80.00			
	84 - 80 m ³	\$ 80.00 + 1.00 per m ³ over 83 m ³			
	126 - 120 m ³	\$ 120.00 + 1.50 per m ³ over 125 m ³			
	over 167 - m ³	\$ 180.00 + 2.25 per m ³ over 167 m ³			
Other The minimum charge and the volume of water to be apportioned for a six (6) month period for other types of development that, in the opinion of the Manager , do not fall within the above classifications, shall be determined by the Manager and his decision shall be final.					
Aggregate Allotment - Where more than one of the above classifications including "Other" is in use, or intended for use, then the applicable charges shall be applied to each and every classification					

UNDETECTED LEAKS

User Charges will be adjusted on a one-time forgiveness basis where an detected leak on the consumer's property has resulted in water usage greatly exceeding typical usage of water, according to the applicable classification(s), and where there is no indication that water was knowingly allowed to run to waste. Written verification from the consumer describing the nature of the leakage and the action taken to rectify the problem must be shown to the satisfaction of the Manager before the one-time forgiveness will be granted. The water service must be replaced in its entirety, or for longer than typical water services a significant portion of the water service must be replaced, to prevent any re-occurrence of leakage. Consumers are required to report to the Manager within 30 days of the most recent billing date.

The leakage problem must be rectified by the consumer within 30 days upon discovery or notification of the problem. Forgiveness will only be considered for a single billing period. Additionally, a cap of \$1,500.00 per owner is in place for subsequent leaks after the first "forgiveness" of a water overage charge.

USER CLASSIFICATION DESCRIPTIONS

Single Family Dwelling:

Applies to any connection servicing a single segregated self-contained residential dwelling used for, or intended for, the domestic use of one or more individuals as a single housekeeping unit with cooking, living, sleeping and sanitary facilities including, but not limited to, a townhouse, semi-detached residential home, duplex or a cabin.

Apartment:

Applies to any connection servicing a multiple occupancy residential building(s) with self-contained and segregated units consisting of two or more rooms used for, or intended for the domestic use of one or more individuals as a single housekeeping unit with cooking, living, sleeping and sanitary facilities.

Mobile/Modular Home Park:

Applies to a connection servicing land used or occupied for the purposes of providing space for the accommodation of mobile homes either on a rental or ownership basis. A mobile home means any structure containing one dwelling whether ordinarily equipped with wheels, or not, that is designated, constructed or manufactured to be moved from one place to another by being towed, or carried, but not including travel trailers, campers, or other vehicles exempt from the provisions of the Mobile Home Act.

RV Trailer Park/Campground:

Applies to any connection servicing land used or temporarily occupied for the purpose of providing space for the accommodation of recreational vehicles or recreational structures. A recreational vehicle or recreational structure means a vehicle, trailer, coach, tents, structure, or conveyance designed to travel, or be transported on a highway and constructed and equipped to be used as temporary living or sleeping quarters for travelers.

Where individual spaces for the above accommodations are connected directly to a **Sanitary Sewer** disposal system, the minimum charge shall be based on the charges set forth in the applicable schedule(s).

Where individual spaces or sites are not serviced directly by an individual and/or separate **Sanitary Sewer** disposal system, but have the use of common or centrally located sanitary facilities, the minimum charge shall be based on the charges set forth in the applicable schedule(s).

Hotel/Motel:

Applies to any connection servicing a building or structure that contains sleeping units for the overnight accommodation of transient paying guests. Auxiliary assembly, commerce, entertainment, or restaurant uses as well as areas licensed to service alcoholic beverages and staff accommodation shall pay the charges according to the classification set forth in the applicable schedule(s).

Where units contain cooking facilities, the minimum charge shall be based on the charges set forth in the applicable schedule(s) per housekeeping or kitchenette unit.

Where units contain sleeping and sanitary facilities only, the minimum charge shall be based on the charges set forth in the applicable schedule(s) per room or suite.

Restaurant:

Applies to any connection servicing a building or structure, or segregated self-contained unit used for, or intended to be used for, the commercial sale of refreshments, prepared or assembled food, and/or meals together with non-alcoholic beverages for sale to the public.

Licensed Premises:

Applies to the connection servicing a licensed beverage establishment as governed by the Liquor Licensing Board of British Columbia, and includes, but is not limited to pubs, restaurants, eateries, lounges, cafeterias and private clubs where alcoholic beverages are served.

Laundromat:

Applies to a connection servicing a building, self-contained unit, or separately owned business entity where washing machines are available for public use for a fee or charge.

Commercial:

Applies to a connection servicing a complex, facility, or parcel of land used to manufacture, sell, repair goods, or provide a service including, but not limited to, retail stores, offices, convenience stores, service establishments, and light industrial uses.

Elementary School and High School:

Applies to a connection servicing an institution of learning, or teaching facility, as defined by the School Act.

Continuing Care Facility:

Applies to a connection servicing a multiple occupancy complex providing long-term care, and living accommodations that include residents requiring full-time professional care, including living, sleeping, cooking, and sanitary facilities, but not including an acute care facility.

Bed & Breakfast:

Applies to any connection servicing a single family dwelling, with an accessory use for overnight accommodation for transient paying guests in which breakfast is the only meal served.

Rooming House:

Applies to any connection servicing a single family dwelling with an accessory use of rooms for rent by individuals for living and sleeping, but with common cooking and sanitary facilities shared by the occupants.



SCHEDULE C

TO CVRD BYLAW NO. 3635

UNMETERED WATER CHARGES

The **Consumer** of **Unmetered District Water** shall pay the charges set out below (A 10% discount will be applied for timely payment).

Water Rates and Charges per Classification per six (6) month period:

	<u>Charge</u>
<i>Single Family Dwelling:</i>	\$ 200.00
<i>Laundromat</i>	\$ 200.00
<i>Elementary/Middle School</i>	\$ 200.00
<i>Apartment</i>	\$ 150.00
<i>Mobile Home Park</i>	\$ 150.00
<i>Commercial:</i> Minimum charge for each 10 employees or portion thereof per shift	\$ 120.00
<i>Continuing Care Facility</i> Minimum charge for each bed	\$ 100.00
<i>RV Trailer Park / Campground:</i> Site connected to sewer, per serviced pad or site	\$ 66.67
<i>Restaurants:</i> Minimum charge for each 10 seats or patrons or portion thereof	\$ 66.67
<i>Hotel / Motel - Housekeeping Unit:</i>	\$ 66.67
<i>Bed & Breakfast / Rooming House:</i> The minimum charge for such facility shall include the minimum charge for a single family dwelling unit plus a minimum charge for each and every guest room	\$ 40.00
<i>RV Trailer Park / Campground:</i> Site not Connected to Sewer: per pad or site	\$ 20.00
<i>High School:</i> Minimum charge for the first 20 students or portion thereof	\$ 250.00
<i>Hotel / Motel:</i> Room or Suite: per room or suite	\$ 50.00
<i>Licensed Premises:</i> Minimum charge for each 10 seats or patrons or portion thereof	\$ 80.00

Other:

The minimum charge and the volume of water to be apportioned for a six (6) month period for other types of developments that, in the opinion of the **Manager**, do not fall within the above classifications shall be determined by the **Manager** and his decision shall be final.

Aggregate Allotment:

Where more than one of the above classifications including "**Other**" is in use, or intended for use, then the applicable charges shall be applied to each and every classification.

Single Family Dwelling

Applies to any connection servicing a single segregated self-contained residential dwelling used for, or intended for the domestic use of one or more individuals as a single housekeeping unit with cooking, living, sleeping and sanitary facilities including, but not limited to a townhouse, semi-detached, residential home, duplex and a cabin.

Apartment:

Applies to any connection servicing a multiple occupancy residential building(s) with self-contained and segregated units consisting of two or more rooms used for, or intended for the domestic use by one or more individuals as a single housekeeping unit with cooking, living, sleeping and sanitary facilities.

Mobile/Modular Home Park:

Applies to a connection servicing land used or occupied for the purposes of providing space for the accommodation of mobile homes either on a rental or ownership basis. A mobile home means any structure containing one dwelling whether ordinarily equipped with wheels, or not, that is designated, constructed or manufactured to be moved from one place to another by being towed, or carried, but not including travel trailers, campers, or other vehicles exempt from the provisions of the Mobile Home Act.

RV Trailer Park/Campground:

Applies to any connection servicing land used, or temporarily occupied for the purpose of providing space for the accommodation of recreational vehicles or recreational structures. A recreational vehicle or recreational structure means a vehicle, trailer, coach, tents, structure, or conveyance designed to travel, or be transported on a highway and constructed and equipped to be used as temporary living or sleeping quarters for travelers.

Where individual spaces for the above accommodations are connected directly to a sanitary sewer disposal system, the minimum charge shall be based on the **Allotment** of water as set forth in the applicable schedule(s).

Where individual spaces or sites are not serviced directly by an individual and/or separate sanitary sewer disposal system, but have the use of common or centrally located sanitary facilities, the minimum charge shall be based on the **Allotment** of water as set forth in the applicable schedule(s).

Hotel/Motel:

Applies to any connection servicing a building or structure, which contains sleeping units for the overnight accommodation of transient paying guests. Auxiliary assembly, commerce, entertainment, or restaurant uses as well as areas licensed to service alcoholic beverages and staff accommodation shall pay the charges according to the classification set forth in the applicable schedule(s).

Restaurant:

Applies to any connection servicing a building or structure, or segregated self-contained unit used for, or intended use for the commercial sale of refreshments, prepared or assembled food, and/or meals together with non-alcoholic beverages for sale to the public.

Licensed Premises:

Applies to a connection servicing a licensed beverage establishment as governed by the Liquor Licensing Board to British Columbia, and includes, but is not limited to pubs, restaurants, eateries, lounges, cafeterias and private clubs where alcoholic beverages are served.

Laundromat:

Applies to a connection servicing a building, self-contained unit, or separately owned business entity where washing machines are available to public use for a fee or charge.

Commercial:

Applies to a connection servicing a complex, facility, or parcel of land used to manufacture, sell, repair goods, or provide a service including, but not limited to retail stores, offices, convenience store, service establishment, and light industrial.

Elementary School and High School:

Applies to a connection servicing an institution of learning, or teaching facility, as defined by the School Act.

Continuing Care Facility:

Applies to a connection servicing a multiple occupancy complex providing long-term care, and living accommodations that include for residents requiring full-time professional care that include living, sleeping, cooking, and sanitary facilities, but not including an acute care facility.

Bed & Breakfast:

Applies to any connection servicing a single family dwelling, with an accessory use for overnight accommodation for transient paying guests in which breakfast is the only meal served.

Rooming House:

Applies to any connection servicing a single family dwelling with an accessory use of rooms for rent by individuals for living and sleeping, but with common cooking and sanitary facilities shared by the occupants.



SCHEDULE D

TO CVRD BYLAW NO. 3635

UNMETERED FIRE LINES

(a) The **Consumers** with an **Unmetered Fire Line** shall pay the rates set out in subsection (b) below:

(b) Fire Line Size (mm)	Rates (dollars per month)
25 mm	3.00
38 mm	7.50
50 mm	12.00
75 mm	30.00
100 mm	48.00
150 mm	22.00
200 mm	96.00
300 mm	144.00



SCHEDULE E

TO CVRD BYLAW NO. 3635

METER READING DATES, DUE DATES AND DISCOUNTS

(a) **Meter Reading Dates and Due Dates**

Metered Water connections serving a residential property shall normally be read during regular CVRD business hours, biannually in the Spring and the Fall, as determined by the **Manager**, with the respective payments payable on the due date specified on the invoice.

Metered Water connections servicing **Consumers** with high usage and charges may normally be read during regular CVRD business hours quarterly each year, at the discretion of the **Manager** with the respective payment due as specified on the invoice.

In the event the last day of the month falls on a Saturday, Sunday, or Statutory Holiday, the due date shall then be the last business day before the Saturday, Sunday, or the Statutory Holiday.

(b) **Transfer to Taxes**

Amounts remaining outstanding at the close of business on December 31 of each calendar year, shall be added to the property taxes and shall be deemed taxes in arrears on the property in question.



SCHEDULE F

TO CVRD BYLAW NO. 3635

HYDRANT PERMIT

The charge for drawing **District Water** from hydrants for purposes other than fire protection shall be as follows:

A deposit of \$300.00 per permit and refundable if the hydrant and appurtenances used in the opinion of the **Manager** have not been damaged.

The minimum charge shall be \$200.00 or the charge when the consumption rate is applied to the amount of water used whichever is the greater.

Consumption Rate: \$4.00 per cubic metre

A hydrant permit shall be permitted at the discretion of the **Manager**.

The **Manager** shall determine and designate which hydrant, if any, shall be used.

Only the designated hydrant may be used unless otherwise approved by the **Manager**.

The **Manager** reserves the right to terminate the use of the hydrant permit at any given time.

Where the actual amount of water used is unknown, the **Manager** may estimate the quantity used and charge accordingly.



SCHEDULE G
TO CVRD BYLAW NO. 3635
MISCELLANEOUS CHARGES

1. Testing of Water Meter

An application for testing the **Water Meter** shall be accompanied by a deposit in the amount of:

\$50.00

2. Charge to Customer

Where the **Water Meter** is found to measure the flow of water accurately: \$50.00

3. Turning **Water Service on each time:** \$25.00

Turning **Water Service** off each time: \$25.00

Note:

The charges for "turn on" or "turn off" shall **not** be levied where:

1. it is necessary to interrupt the supply of water so as to permit the consumer to correct faults on the building service.
2. the water is to be "turned on" for newly installed or water service connection.



SCHEDULE H
TO CVRD BYLAW NO. 3635
MISCELLANEOUS CHARGES

A flat rate parcel tax of \$66.66 per month may be invoiced to **all** properties within the service area boundary of the Woodley Range Water System, pro-rated for the period of the CVRD takeover date to December 31, 2013.

This flat rate charge will be applied on a “one time” basis and will be replaced in 2014 by the application of the Parcel Tax Roll.



COWICHAN VALLEY REGIONAL DISTRICT

BYLAW NO. 3637

**A Bylaw to Establish a Capital Reserve Fund for the
Woodley Range Water System**

WHEREAS the Board of the Cowichan Valley Regional District established the *Woodley Range Water System Service Area* under the provisions of the CVRD Bylaw No. 3616, cited as "CVRD Bylaw No. 3616 – Woodley Range Water System Service Establishment Bylaw, 2012";

WHEREAS the *Local Government Act* and *Community Charter* empower regional districts to establish reserve funds for specified purposes;

AND WHEREAS the Board wishes to establish a Capital Reserve Fund to be used for the purposes of constructing, altering, extending, replacing and/or upgrading the works of the Woodley Range Water System;

NOW THEREFORE the Board of the Cowichan Valley Regional District enacts as follows:

1. CITATION

This bylaw may be cited for all purposes as "**CVRD Bylaw No. 3637 – Woodley Range Water System Capital Reserve Fund Establishment Bylaw, 2012**".

2. ESTABLISHMENT OF FUND

A Capital Reserve Fund to be known as the "*Woodley Range Water System Capital Reserve Fund*" is hereby established.

3. PAYMENTS INTO FUND

Money from current revenues or, as available, from general revenue surplus or as otherwise provided by law may be paid into the Capital Reserve Fund.

4. EXPENDITURES FROM FUND

- a) Money in the Capital Reserve Fund, and interest earned on it, shall only be used for expenditures relating to constructing, altering, extending, replacing and/or upgrading the work in the Woodley Range Water System Service Area.
- b) The expenditures of funds in the Capital Reserve Fund shall be authorized by bylaw.

READ A FIRST TIME this _____ day of _____, 2012.

READ A SECOND TIME this _____ day of _____, 2012.

READ A THIRD TIME this _____ day of _____, 2012.

ADOPTED this _____ day of _____, 2012.

Chairperson

Corporate Secretary



COWICHAN VALLEY REGIONAL DISTRICT

BYLAW NO. 3636

**A Bylaw to Authorize the Preparation of a
Parcel Tax Roll for the Woodley Range Water System**

WHEREAS the Board of the Cowichan Valley Regional District established the *Woodley Range Water System Service Area* under the provisions of CVRD Bylaw No. 3616, cited as "CVRD Bylaw No. 3616 – Woodley Range Water System Service Establishment Bylaw, 2012";

AND WHEREAS the Board of the Cowichan Valley Regional District is empowered under Section 803 of the *Local Government Act* and Section 5 of CVRD Bylaw No. 3616 to recover annual servicing costs by imposing a parcel tax on lands within the service area;

AND WHEREAS it is deemed desirable and expedient to impose a parcel tax on land benefiting from such service to meet such costs;

AND WHEREAS for the purpose of imposing a parcel tax the Board must, pursuant to Section 806.1 of the *Local Government Act*, provide for the preparation of a parcel tax roll for the service area;

NOW THEREFORE the Board of the Cowichan Valley Regional District enacts as follows:

1. CITATION

This bylaw may be cited as "**CVRD Bylaw No. 3636 – Woodley Range Water System Parcel Tax Roll Bylaw, 2012**".

2. DEFINITIONS

In this bylaw, unless the context otherwise requires:

"*Parcel*" means any lot, block or other area in which land is held or into which it is subdivided, but does not include a highway.

3. PREPARATION OF PARCEL TAX ROLL

Beginning in the year 2013 and annually thereafter, a parcel tax roll shall be prepared in accordance with Division 4 of Part 7 of the *Community Charter* and will include all parcels of land within the boundary of the Woodley Range Water System Service Area.

4. BASIS OF PARCEL TAX

The said parcel tax shall be imposed on the basis of a single amount for each parcel.

READ A FIRST TIME this _____ day of _____, 2012.

READ A SECOND TIME this _____ day of _____, 2012.

READ A THIRD TIME this _____ day of _____, 2012.

ADOPTED this _____ day of _____, 2012.

Chairperson

Corporate Secretary



STAFF REPORT

R4

ENGINEERING & ENVIRONMENTAL SERVICES COMMITTEE MEETING OF OCTOBER 24, 2012

DATE: October 11, 2012

FILE NO: 5600-30-SHW/01

FROM: Louise Knodel-Joy, Senior Engineering Technologist

SUBJECT: Shellwood Water System Management Bylaws

Recommendation:

1. That the following bylaws be forwarded to the Board for consideration of three readings and adoption:
 - .1 CVRD Bylaw No. 3644 – Shellwood Water System Management Bylaw, 2012
 - .2 CVRD Bylaw No. 3645 – Shellwood Water System Parcel Tax Bylaw, 2012
 - .3 CVRD Bylaw No. 3646 – Shellwood System Capital Reserve Bylaw, 2012

Relation to the Corporate Strategic Plan:

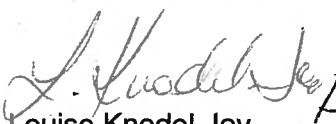
Financial Impact: (Reviewed by Finance Division: *Sen*)

User fees for this system have been set at \$400 annually, or \$33.33 per month and the parcel tax will be \$700, which equates to \$58.33 monthly.

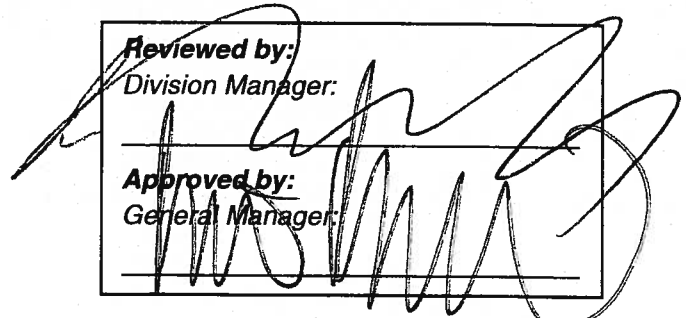
Background:

The Establishment Bylaw for this utility has been approved by the Ministry. Therefore, staff have now prepared the management bylaws to be forwarded to the Board for consideration of three readings and adoption. Proposed takeover of the water system is January 1, 2013.

Submitted by,


Louise Knodel-Joy
Senior Engineering Technologist
Water Management Division

Reviewed by: Division Manager:
Approved by: General Manager:



LKJ:jlb

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COWICHAN VALLEY REGIONAL DISTRICT

BYLAW No. 3644

**A Bylaw for the Regulation and Management of the
Shellwood Water System**

WHEREAS the Board of the Cowichan Valley Regional District established the Shellwood Water System Service Area under the provision of CVRD Bylaw No. 3624, cited as "*CVRD Bylaw 3624 - Shellwood Water System Service Establishment Bylaw, 2012*", for the purpose of providing services to a defined portion of Electoral Area H – North Oyster/Diamond;

AND WHEREAS it is deemed necessary and expedient that provisions be made for the regulation and management of the water system, and for terms and conditions upon which water services may be provided, and for a tariff of charges for such services;

NOW THEREFORE the Board of Directors of the Cowichan Valley Regional District, in open meeting assembled, enacts as follows:

1. CITATION

This Bylaw may be cited for all purposes as "**Cowichan Valley Regional District Bylaw No. 3644 - Shellwood Water System Management Bylaw, 2012**".

2. DEFINITIONS

In this bylaw, unless the context otherwise requires:

"Allotment" means the maximum amount of water that may be used by a classification of user to which the minimum user charge for a specific billing period is applied.

"Applicant" means an owner or his agent making application for water services and from whom the District may expect to receive revenue on a continuing basis for this service.

"Shellwood Water System" means the water system currently servicing the **Shellwood Water System Service Area**, including all **District** water supply plants, intakes, wells, outlets, equipment, water storage tanks and reservoirs, water supply lines, pumping stations, watermains, appurtenances, water service connections, water meters and all other waterworks designated for the supply and distribution of water together with all other works related to the operation of the system, including electrical pumps and components, control systems and signal cable and all lands appropriated for such purposes and uses.

"Shellwood Water System Service Area" means the service area established and defined by bylaw within which the **District** manages and operates a Community Water System.

"Building Service" means a water pipe extending from the property line to the plumbing system at the building or buildings on the subject property whether for domestic, or fire use.

"Capable of Connection" means that the parcel of land abuts a street, lane, public water right-of-way or easement, upon or under which there is a main water pipe with excess capacity and that the service connection will have adequate cover at the property line.

"Committee" means a standing committee, comprised of representatives from the **Regional Board**, which the Engineering and Environmental Services Department reports to.

"Consumer" means the **Owner** or occupant of property which is serviced by, connected to and uses **District Water**.

"District" means the Cowichan Valley Regional District.

"District Water" means water carried by the **Shellwood Water System**.

"Extension" means an extension to the main water pipe forming part of the **Shellwood Water System**.

"Main Water Pipe" means a pipe forming part of the public distribution system.

"Manager" means the person duly appointed General Manager of the Engineering and Environmental Services Department by the **Regional Board**, or his designate.

"Metered Water" means **District Water** supplied to **Consumers** through meters.

"Owner" means the person or persons holding a fee simple or equitable interest in land.

"Parcel Tax" means an annual tax levied on each parcel of land within the **Shellwood Water System Service Area** and as established by a separate bylaw.

"Private Water Supply System" means an assembly of pipes, fittings, valves, equipment and appurtenances that supplies water from a private source.

"Regional Board" means the Board of Directors of the Cowichan Valley Regional District

"Treasurer" means the person duly appointed Treasurer by the Regional Board, or his duly appointed delegate.

"Unit" means an "area within" a building which is segregated and self-contained and, in the case of multiple units, the units may be owned or rented by different persons or organizations.

"Unmetered Fire Line" means a **Water Service** supplying **Unmetered Water** directly to **Consumers** for purposes of fire protection and does not include a watermain serving fire hydrants owned and maintained by the **District**.

"Unmetered Water" means **District Water** supplied to **Consumers** without the use of meters.

"Water Charges" means the charges set out in Schedules A, B, C, D, E, F, and G to this bylaw.

"Water Meter" means a device used for measuring water consumption and used for revenue purposes by the **District**.

"Water Rates" means the rates set out in Schedules A, B, C, D, E, F, and G to this bylaw.

"Water Service" means the conduit connecting a watermain, which is part of the **Shellwood Water System**, to a building or buildings whether for domestic or fire purposes and such conduit shall consist of a **Water Service Connection** and a **Building Service**.

"Water Service Connection" shall mean the water pipe and its integral appurtenances that are placed (and generally at right angles thereto) from the watermain to near the **Owner's** property line or edge of statutory right-of-way and includes the curb stop and meter.

"Water Service Connection Charge" means the charges as set out in Schedule A.

3. **ADMINISTRATIVE POLICY**

1. (a) The responsibility for the construction, operation and maintenance of the **Shellwood Water System** is hereby vested in the **Manager** who shall operate the same under the established policy of the **Regional Board**.
- (b) No construction, operation or maintenance work of any kind or nature not specifically authorized by this bylaw shall be performed on the whole or any part of the **Shellwood Water System** except as authorized in writing by the **Manager**.
- (c) **Ownership Of Water System** - All water pipes, connections, appurtenances or facilities required for water distribution to the **Owner's** property line which are constructed, whether at the **Owner's** expense or **District** expense in present or future public highways or within **District** right-of-way or property, shall be the property of the **District**.
2. (a) The **District** may supply **District Water** as circumstances, equipment and water supply permit.
- (b) No **District Water** shall be supplied to any parcel of land or buildings outside of the **Shellwood Water System Service Area** except by special agreement with the **District**.

- (c) All reasonable efforts will be made to ensure a supply of **District Water** to the consumer; however, the **District** does not guarantee to the **Consumer** an uninterrupted supply of **District Water** or that any standard of water pressure, water quantity or water quality will be met or maintained nor shall any failure to provide an uninterrupted supply of **District Water** or to meet any such standard be construed as neglect on the part of the **District**.
3. Any person authorized by the **Manager** shall have free access at all reasonable times, and upon reasonable notice being given to all parts of every building, chamber or other facility to which **District Water** is supplied, to inspect, observe, measure, sample and test any **Building Service** and its appurtenances within or without the building in order to ascertain whether or not the provisions of this bylaw are being obeyed.
4. (a) The **Manager** may upon reasonable notice shut off water within all or any part of the **Shellwood Water System**, however, in emergency situations, notice may not be given.
- (b) The **District** is not liable for damages caused by the breaking of any **Water Service**, watermain or appurtenance.
5. In the event of water shortage, the **Manager** may prescribe restrictions on the consumption, hours of consumption, and use of **District Water**.
6. Any person(s) before proceeding with, or authorizing, any construction which is proposed to be located under, across or along any watermain or other water works forming part of the **Shellwood Water System** shall notify the **Manager** in writing of his intention to proceed with the same, and if, in the opinion of the **Manager**, it becomes necessary to support or relocate such watermain or other water works, the cost of supporting or relocating the watermain or other water works shall be charged against that person and the **Manager** shall have the power to supervise and direct the supporting or relocating of such watermains or other water works.
7. Any person(s) who has proceeded with, or who has authorized any construction which is located under, over, across or along any watermain or other water works forming part of the **Shellwood Water System** shall be liable for any damage caused by such construction. If the damage is not remedied to the satisfaction of the **Manager** in a reasonable time as determined by him, the **Manager** may have such damage repaired, upon giving notice to such person(s), and the cost of the repairs shall be borne by such person(s).

4. WATER RATES, CHARGES AND REVENUES

1. (a) Revenues for the **Shellwood Water System** may be raised by **Water Rates**, **Water Charges** and **Parcel Taxes**.
- (b) If in any fiscal year the revenues generated by the rates and charges set out in subsection (a) do not meet the expenditures of the **Shellwood Water System Service Area**, the deficit may be covered by a duly authorized increase in any or all of the charges set out in subsection (a) for the succeeding fiscal year.
- (c) All revenue raised by the methods herein described or authorized shall be applied to the **Shellwood Water System**.
2. (a) **Consumers** of **Metered Water** shall be billed on the basis of their consumption of **District Water** and shall be charged **Water Rates** in accordance with Schedule B.
- (b) **Consumers** of **Unmetered Water** shall pay the **Water Charges** set out in Schedule C.
- (c) **Consumers** with **Unmetered Fire Lines** shall pay the **Unmetered Fire Line** Rates set out in Schedule D.
- (d) Persons requiring the miscellaneous services set out in Part 8 of this bylaw shall pay the **Water Charges** set out in Schedule G for such services.
- (e) No charge will be made for the volume of **Unmetered District Water** used for fire protection purposes or the testing of fire protection equipment.
3. (a) The Rates and Charges set out in Schedules A, B, C, D, E, F and G shall be subject to periodic review by the **Manager** and the Electoral Area Services **Committee** may make recommendations on the revision of the said Schedules to the **Regional Board**.
- (b) Schedules A, B, C, D, E, F and G may be revised by bylaws enacted by the **Regional Board**.

5. METERED WATER SERVICE

1. (a) All **Water Services** shall be metered unless otherwise directed by the **Manager**.
- (b) All **Consumers** shall be responsible for providing suitable plumbing for the installation of a **Water Meter**.
- (c) The **Water Meter** shall be installed on the **Water Service Connection** in a readily accessible location in close proximity to the property lines or location approved by the **Manager**.
- (d) The rates shall be due and payable at the offices of the **District** on or before the date shown in Schedule E of this bylaw.

- (e) When a new **Water Service Connection** is installed, the water rate levied shall be prorated in accordance with appropriate charges set out in Schedule B and shall be computed as follows:
 - i) Existing building – from the month following the month in which the **Water Service Connection** is completed, or one month after the water application is completed.
 - ii) New building – two months after the insulation inspection for the building has been completed, or at the discretion of the **Treasurer**.
 - (f) **Water Meters** shall be installed, sealed, maintained, repaired and disconnected only by employees or agents of the **District**, or other persons duly authorized by the **Manager**.
 - (g) The **District** shall not be responsible for any damage to buildings or property occasioned by, or in the course of, the installation, maintenance, repair or disconnection of any **Water Meter** or **Water Service Connection** provided that reasonable care has been taken by the employees or agents of the **District**, or other persons duly authorized by the **Manager**, in the course of such installation, maintenance, repair or disconnection.
 - (h) Where a metered **Water Service** is in use, all **District Water** consumed on the property shall pass through the **Water Meter** authorized by the **District** for use on the property unless the water in question is authorized by this bylaw for unmetered use.
 - (i) Where an **Unmetered Fire Line** is provided, no water shall be taken other than for fire protection or testing of the fire protection system unless authorized by the **Manager**.
 - (j) Only one **Water Meter** shall be installed on a **Water Service** whether the **Water Service** serves a single building or a number of buildings on a lot, parcel or block of land unless otherwise approved by the **Manager**. For the purposes of this section, each half of a semi-detached dwelling and each unit of street townhouses or street link houses is to be considered a single building.
 - (k) If a **Consumer** now receiving **Unmetered Water** requests that a **Water Meter** be installed on his water service connection, the **Manager** may, at his discretion, comply with such request with all related cost to be borne by the **Consumer**.
 - (l) At the time of applying for an Application for **Water Service**, the **Applicant** shall deposit an amount equal to the **Water Service Connection Charge** plus the **Manager's** estimated cost of providing the **Water Service Connection**.
2. (a) If the **Manager** directs that the **Water Meter** be installed in a meter chamber, the meter chamber shall be constructed and maintained by the **Consumer** in a manner satisfactory to the **Manager** and shall be kept accessible and safe to the employees or agents of the **District**.

- (b) The **Consumer** shall pump all water from the meter chamber if required by the **Manager**.
 - (c) The size of **Water Meters** to be installed shall be approved by the **Manager**.
 - (d) Unless otherwise approved by the **Manager**, no pipe connection shall be made to a **Water Service** other than after the outlet side of a **Water Meter**, except where required by the **Manager**, properly valved and sealed by-passes around the **Water Meter** shall be provided by and at the expense of the **Consumer**.
 - (e) **Consumers** shall immediately notify the **Manager** of any breakage, stoppage or irregularity in a **Water Meter** and/or a **Building Service** and/or the plumbing system or fixtures within the building or buildings.
3. (a) All **Water Meter** readings shall be performed under the co-ordination and control of the **Manager**.
- (b) **Water Meter** readings may be performed by duly authorized employees or agents of the **District** who must carry with them, while performing **Water Meter** reading duties, identification designating them as employees or agents of the **District**.
 - (c) **Consumers** shall provide to the duly authorized employees or agents of the **District** access to buildings, chambers or other facilities in which **Water Meters** are situated at all reasonable hours and shall facilitate such access in all reasonable ways.
 - (d) **Water Meters** shall be read annually, semi-annually, quarterly, bi-monthly, monthly or at any interval deemed necessary by the **Manager**.
 - (e) The **Treasurer** may estimate the quantity of water used by the **Consumer** since the date of the last accurate meter reading, or the last satisfactory estimate of consumption, and bill the **Consumer** accordingly, under circumstances where:
 - (i) the **Water Meter** is broken, stopped or irregular;
 - (ii) the **Water Meter** or meter seal has been disconnected, altered or tampered with in any way;
 - (iii) the **Water Meter** has been incorrectly read;
 - (iv) the **Water Meter** reading has been incorrectly recorded;
 - (v) a **Water Meter** by-pass has been used or the by-pass seal has been disconnected, altered or tampered with;
 - (vi) the person duly authorized to do so has been unable to obtain a **Water Meter** reading;
 - (vii) it is deemed necessary by the **Treasurer** for any other circumstances.
 - (f) Where the quantity of water used by a **Consumer** has been estimated pursuant to subsection (e), the **Treasurer** may, at the time of the first accurate meter reading subsequent to such estimate, make a new estimate of the quantity of water used by the **Consumer** and increase or decrease the billing to the **Consumer** accordingly.

- (g) Under circumstances where it is in the opinion of the **Manager** expedient to allow a **Consumer** to run water continuously, the **Manager** may authorize such usage and in such cases the **Treasurer** may adjust the **Consumer's** metered billing to conform with the **Consumer's** normal pattern of water use.
- 4. (a) A **Consumer**, upon written application to the **Manager** may have his **Water Meter** tested.
- (b) Every application for testing shall be accompanied by a deposit of the fee for testing **Water Meters** set out in Schedule G.
- (c) If the **Water Meter** is shown by the test to measure the flow of water within AWWA specifications, the **Consumer** shall be charged the fee for the test set out in Schedule G and the deposit set out in Section 1 shall be credited against that charge.
- (d) If the **Water Meter** is shown by the test to measure the flow of water outside AWWA specifications, whether high or low, no fee shall be charged for the test, the **Consumer's** deposit shall be returned and the **Consumer's** water bill adjusted in an amount to be determined by the **Treasurer** and the **Water Meter** shall be replaced or repaired at the cost of the **District**.

6. **WATER SERVICE CONNECTION**

- 1. (a) A person desiring **District Water** and who owns or occupies a building(s) on lands within the **Shellwood Water System Service Area**, which abuts a watermain that is a part of the **Shellwood Water System**, shall apply to have his building(s) connected to the watermain.
- (b) No connection shall be made to the **Shellwood Water System** until an Application for **Water Service** has been completed and approved by the **Manager**.
- (c) An Application for **Water Service** shall be completed on a form provided by the **Manager**, and the information shall be certified to be correct and signed by the **Applicant** or his agent, and shall be completed and approved at least three weeks prior to the date by which connection to the **Shellwood Water System** is requested, or as deemed a reasonable time by the **Manager**.
- (d) Where a **Water Service Connection** is to be installed as part of an **Unmetered Fire Line**, or for any use other than single family residential use, or where the proposed **Water Service Connection** is greater than 25 mm in diameter, detailed plans of the **Water Service** or **Unmetered Fire Line** acceptable to the **Manager** shall be submitted with each Application for **Water Service**.
- (e) An Application for **Water Service** shall be accompanied by a payment equal to the **Water Service Connection** charge plus a deposit in accordance with the conditions and requirements as set out in Schedule A. The deposit shall be applied against the actual cost of the **Water Service Connection** installation.

- (f) The **Manager** may refuse approval of an Application for **Water Service** where, in his opinion, the **Shellwood Water System** may be adversely affected, where, in his opinion, there is insufficient water supply available or where a watermain does not abut the **Applicant's** lands.
 - (g) Every **Water Service Connection** shall be installed prior to installation of the **Building Service**. The **District** shall not be responsible for meeting the location or for connecting to an existing **Building Service** installed prior to the installation of the **Water Service Connection**.
2. An Application for **Water Service** must be completed prior to connecting the **Building Service** to the **Water Service Connection** for each separate **Water Service Connection** in housing developments built on lands subject to registered plans of subdivision where the **Water Service Connection** has been provided by the subdivider. The Application for **Water Service** will be issued at a charge set forth in Schedule A to the subdivider under these circumstances.
3. (a) Where the **Owner** of property wishes to re-use an abandoned **Water Service Connection** that previously served a building on the **Owner's** property, the **Owner** shall apply to re-use the **Water Service Connection** and such application shall require the inspection of the **Water Service Connection**. The **Owner** shall pay the inspection fee set out in Schedule A, expose the **Water Service Connection** and prepare it for inspection, and the **Manager** may, upon inspecting such **Water Service Connection**, refuse to allow the re-use of it if, in the **Manager's** opinion, it is defective. The **Manager's** opinion on this matter shall be final.
- (b) Where the **Manager** has deemed an abandoned **Water Service Connection** defective, the **Owner** shall apply for a new **Water Service Connection** and pay the charge or deposit as set out in Schedule A.
4. (a) **Building Services** shall be installed in accordance with the requirements of the British Columbia Plumbing Code, as amended from time to time, and shall be constructed by the **Owner** entirely at the **Owner's** expense.
- (b) The **Building Service** shall be maintained and repaired by the property **Owner** at his sole expense. Whenever a malfunction occurs in the **Building Service** or **Water Service Connection**, the **Owner** or occupier of the premises served shall first determine that the failure is not located in the **Building Service** before notifying the **Manager** who shall, as soon as practicable, arrange to have the **Water Service Connection** restored to serviceable condition.
5. (a) All work involved in the installation and maintenance of **Water Service Connections** shall be performed only by duly authorized employees or agents of the **District**.
- (b) Every **Water Service Connection** is to be laid, as nearly as practicable, in a generally straight line and at a right angle to the watermain.

- (c) Where the **Applicant** for a **Water Service Connection** indicates in his application a desired location for the **Water Service Connection**, the **Water Service Connection** will be located as indicated providing the proposed location is approved by the **Manager**.
 - (d) Where the **Applicant** for a **Water Service Connection** does not indicate in his application a desired location for the **Water Service Connection**, the **Water Service Connection** will be located as determined by the **Manager** and if the **Applicant** subsequently requires a relocation of the **Water Service Connection**, such relocation shall be at the expense of the **Applicant**.
 - (e) No **Water Service** shall be installed in, over or across the property of another person or located on an easement in favour of one **Owner** to another except by the written consent of the **Owners** concerned and the approval of the **Manager**.
 - (f) Only one **Water Service** shall be installed for each lot, block or parcel of land unless otherwise approved by the **Manager**.
 - (g) A **Water Service** shall be installed to each unit of semi-detached buildings, street townhouses and street link houses, except for townhouses registered under the British Columbia Strata Property Act.
 - (h) Where more than one lot, block or parcel of land under separate ownership are served by a single **Water Service**, the **Manager** may order the affected **Consumers** to disconnect from the single **Water Service** and to conform to Item f above, and all costs including those for installing new **Water Service Connections** shall be borne by the **Consumers**.
6. When a **Consumer** requires the **Water Service Connection** to his land or premises to be replaced, the existing **Water Service Connection** shall be disconnected and the cost of disconnecting the **Water Service Connection** as set out in Schedule A, shall be borne by the **Consumer**.
7. When the **Manager** determines that a **Water Service Connection** is no longer required and can be abandoned, the **Water Service Connection** shall be disconnected at the watermain and the cost of the disconnection, as set out in Schedule A, shall be borne by the **Owner** of the lot, block or parcel of land, which the **Water Service Connection** served, or was intended to serve or as otherwise directed by the **Manager**.
8. (a) The **Consumer** is responsible for the repair or replacement of a leaking or defective **Building Service** or appurtenance and if, after written notice, it is not remedied in reasonable time, the water supply may be temporarily interrupted until the necessary repairs are completed to the satisfaction of the **Manager** and the cost of such repair or replacement shall be borne by the **Consumer**.
- (b) The **Manager** may turn off or restrict the supply of water to any building in which any leaking or defective pipe, tap or fixture, or any cross connection exists and shall require that the pipe, tap or fixture be repaired or replaced by the **Consumer** in such manner as the **Manager** may approve before the water is turned fully on again.

7. USE OF WATER SERVICE FOR FIRE PROTECTION

1. (a) No person other than duly authorized employees or agents of the **District** or Local Fire Department shall operate or use any **District** or private fire hydrant.
- (b) The **Manager** may, by means of a "Hydrant Permit" issued by him, authorize the use of a specified **District** or private hydrant for a specified time under specified conditions, including the supervision of such use by the **Manager**, at the charges set out in Schedule F.
2. (a) The **Manager** may approve the supply of **District Water** to **Consumers** within the **Shellwood Water System Service Area** who have **Unmetered Fire Lines** for fire protection purposes and such water may serve private fire hydrants, automatic sprinkler systems and standpipes.
- (b) An **Unmetered Fire Line** shall be separate from the domestic **Water Service**. An **Unmetered Fire Line** and a **Water Service Connection** may be combined within a public road allowance or easement providing separation takes place within the public road allowance or easement and providing a valve is installed on each branch within the public road allowance or easement.
- (c) An **Unmetered Fire Line** whether separate or combined with a domestic **Water Service** as in (b), shall be isolated to prevent back flow in accordance with the current British Columbia Building Code and the British Columbia Plumbing Code and other applicable regulations.
- (d) No **Private Water Supply System** shall be interconnected with the **Shellwood Water System**.
- (e) Private fire hydrants shall be maintained by the **Consumers** thereof to the satisfaction of the **Manager** and such **Owners** may be required from time to time to establish to the satisfaction of the **Manager** that such hydrants are sound, do not leak and are in good operating order.
- (f) **Unmetered fire lines** shall be utilized for no other purpose than fire fighting without written permission from the **Manager**.

8. MISCELLANEOUS SERVICES AND REQUIREMENTS

1. (a) The **Manager** shall at the request of a **Consumer** turn the **Consumer's** supply of **District Water** "off" or "on" and the **Consumer** shall pay a fee for this service as prescribed in Schedule G.
- (b) A **Consumer** who has had his supply of **District Water** turned off shall not be required to pay the **Water Charges** while such supply is turned off, provided the "water off" charges as described in Schedule G have been paid.

2. The **Treasurer** shall, upon written request in respect to each separate parcel of land or buildings, furnish any **Applicant** with a written verification showing the arrears of **Water Charges** due on, or in respect of, any parcel of land or buildings up to the date to which such water charges were last computed, the duration of the last billing period, and the net amount billed during that period.
3. In the event of a **Building Service**, an **Unmetered Fire Line** located on private property, or a private fire hydrant becoming frozen, the **Consumer** shall notify the **Manager** and shall take steps to have such **Building Service**, Fire Line or hydrant thawed. The repair costs for damages caused by the thawing operation shall be assumed by the **Consumer**.
4. (a) Anti-tampering devices shall be installed on hydrants when deemed necessary by the **Manager**.

(b) Where anti-tampering devices are installed on hydrants in new developments such as industrial or residential subdivisions, the cost of purchasing, installing and maintaining such devices shall be borne by the developer or **Owner**.
5. Plants, shrubs, trees, hedges, fences and other structures shall not be so close to a meter box, hydrant or valve box as to obstruct the siting of, or access to, the hydrant, air relief, **Water Meter**, or valve box by duly authorized employees or agents of the **District**.
6. A driveway shall be constructed no closer than 1 metre from a hydrant.

9. BILLING & COLLECTING WATER RATES & WATER CHARGES

1. (a) All **Water Rates** and **Water Charges**, as set out in Schedules B and C, shall be payable for water consumed and services provided and shall be due and payable when rendered.

(b) Regular billings for **Water Charges** may be rendered annually, semi-annually, quarterly, bi-monthly, monthly or at any other periodic interval as set out in Schedule E, or as determined by the **Manager**.

(c) The **Treasurer** may with reasonable notice advance or delay any regular billing of **Water Rates** or **Water Charges**.

(d) To protect the **District** against potential losses from unpaid water billings, the **Treasurer** may, at his discretion, demand in writing, a security deposit by way of cash, certified cheque, letter of credit or guarantee from an **Owner** from whom delinquent charges and fees cannot be applied to property taxes.

(e) The amount of the security deposit shall be no less than an amount equal to a **Consumer's** estimated water bill for a period of 180 days.
2. (a) All water bills shall be distributed to the **Consumer** by ordinary, prepaid mail or by any other means as deemed expedient and necessary by the **Treasurer**.

- (b) **Water Rates** and **Water Charges** may at the discretion of the **Treasurer** be charged and billed to:
 - (i) the person requesting that water services be provided, or
 - (ii) the person in occupation of the building serviced by the **Shellwood Water System**, or
 - (iii) the **Owner** of the building served by the **Shellwood Water System**.
- (c) All **Water Rates** and **Water Charges** for services rendered to buildings having multiple units shall be charged and billed to the **Owner** of the property unless otherwise directed in writing by the **Treasurer**.
- (d) All **Water Rates** and **Water Charges** for services rendered to buildings registered under The Condominium Act shall be billed to the Condominium Corporation unless otherwise directed in writing by the **Treasurer**.
- (e) Payment may be made, with no additional service charge, by personal cheque through the mail, by personal cheque, cash or debit in person at the **District** office or at any location or via internet or telephone banking as directed by the **Treasurer**.

10. EXTENSIONS TO THE LOCAL SERVICE (WATER SUPPLY) AREA

1. (a) **Applications and Fees:**

Where, after a review of a request for servicing, the **Manager** has determined the need for an **Extension** to the **Shellwood Water System** in order to provide **District Water** to property located within the boundaries of the Shellwood Water System Service Area, the **Owner** of the property shall make written application for an **Extension** to the **Manager**.

The application shall be accompanied by the fee as set out in Schedule A.

(b) **Approval:**

Following a review of the proposed **Extension** of the **Shellwood Water System** the **Manager** shall advise the **Applicant** in writing if the **Extension** is approved or denied.

(c) **Conditions:**

An approved **Extension** to the **Shellwood Water System** may proceed provided the **Applicant** complies with the following conditions:

- i. The **Applicant** shall complete a **Water Service Connection** Application for each and every **Unit** or parcel of land to be serviced together with the applicable **Water Service Connection Charge**.
- ii. Where the **Manager** concludes the **Extension** will be undertaken by the **District**, the **Applicant** shall deposit with the **District** monies in the amount of the estimated cost of both the **Extension** and the required **Water Service Connection** as determined by the **Manager**.

- iii. Where the **Manager** grants a request by the **Applicant** for an **Extension** to be undertaken by others considered in the opinion of the **Manager** to be professionally competent, then the **Applicant** shall ensure that the work complies with the plans and specifications submitted by the **Applicant** and approved for construction by the **Manager**. Following completion of the **Extension** and other related work, the **Applicant** shall submit "As Constructed" drawings in a format acceptable to the **Manager** together with written verification that the completed work complies with the requirements of the **District**. The **Applicant** shall guarantee the work for a period of two years from the date this work is accepted by the **Manager**. The **Manager** may require certification of the above by a Professional Engineer registered in the Province of British Columbia.
- iv. The pipe size of the **Extension** shall not have less than a 150 mm inside diameter and shall include all appurtenances as determined by the **Manager**, including, but not limited, to main line valving and fire hydrants. The **Manager** may allow a 100 mm inside diameter **Extension** on a cul-de-sac, which in the opinion of the **Manager** has fire protection.
- v. The point at which the **Extension** may connect to the **Shellwood Water System** shall be determined by the **Manager**.
- vi. The **Extension** to the **Shellwood Water System** shall extend across the entire frontage of the property to be serviced by the **Extension** unless otherwise approved in writing by the **Manager**.
- vii. The final cost to the **Applicant** shall include all costs directly or indirectly associated with the **Extension** including, but not limited to the following items:
 - design
 - preparation of drawings, specifications and tender documents
 - approval applications to other agencies
 - survey and layout
 - legal fees
 - supervision and inspection
 - site restoration
 - upgrade of the Service Area to accommodate the proposed development.
 - testing, disinfection and sampling.

11. OFFENCES AND SANCTIONS

- 1. Every person who:
 - (a) hinders or interrupts, or causes or procures to be hindered or interrupted, the **District**, or any of its officers, contractors, employees or agents, in the exercise of any of the powers conferred by this bylaw;
 - (b) lets off or discharges water so that the water runs to waste out of the **Shellwood Water System** unless duly authorized to do so, in writing, by the **Manager**;

- (c) being a consumer, tenant, occupant, or inmate of any house, building or other place supplied with water from the **Shellwood Water System**, lends, sells, or disposes of the water, gives it away, permits it to be taken or carried away, uses or applies it to the use or benefit of another, or to any use and benefit other than his own, increases the supply of water agreed for, or improperly wastes the water;
 - (d) without lawful authority, opens or closes or tampers with any hydrant, valve, curb stop or other appurtenances or obstructs the free access to any hydrant, valve, service box, chamber, pipe, or hydrant-chamber or other appurtenances by placing on it any building material, rubbish, or other obstruction;
 - (e) throws or deposits any injurious, noxious or offensive matter into the water of the **Shellwood Water System**, or upon the ice, if the water is frozen, or in any way fouls the water or commits any damage, or injury to the works, pipes, or water, or encourages the same to be done;
 - (f) removes or alters any **Water Meter** or meter seal or opens any **Water Meter** bypass placed upon any **Building Service** or connected therewith, within or without any building or other place, so as to lessen or alter the amount of water registered;
 - (g) lays or causes to be laid any pipe or main to communicate with any pipe or main of the **Shellwood Water System**, or in any way obtains or uses the water without the written consent of the **Manager**;
 - (h) obstructs or refuses entry to any employee or agent of the **District** in the discharge of any duty under this bylaw;
 - (i) establishes, maintains or uses any connection to any part of the **Shellwood Water System** whereby foreign matter, non-potable water, or water from a **Private Water Supply System** may enter the **Shellwood Water System**;
 - (j) fails to notify the **Manager** of any breakage, stoppage or irregularity in any **Water Meter** for which he is responsible;
 - (k) fails to obey any restriction on consumption, hours of consumption and use of water pursuant to Part II, Section 5 of CVRD Bylaw No. 3209 - Ticket Information Authorization Bylaw, 2008; or
 - (l) contravenes any section of this bylaw, is guilty of an offence and on summary conviction is liable to a fine of not more than \$2,000.00 or may be imprisoned, without the option of a fine, for a term of not more than one month.
2. In addition to all other sanctions and remedies provided in this bylaw, the **Manager** may turn off or restrict the supply of water to any **Consumer** where such **Consumer** has violated any of the provisions of this bylaw and may refuse to restore normal service until the violation complained of has been terminated or remedied.

3. That pursuant to the Local Government Act, any rates, charges and/or fees which remain unpaid after December 31 in any year shall be deemed to be taxes in arrears on the property concerned, with interest on those taxes in arrears calculated in accordance the Local Government Act.

12. REMAINDER OF BYLAW TO REMAIN INTACT:

In the event that any portion of this bylaw is declared *ultra vires* by a Court of competent jurisdiction, then such portion shall be deemed to be severed from the bylaw to the intent that the remainder of the bylaw shall continue in full force and effect.

READ A FIRST TIME this _____ day of _____, 2012.

READ A SECOND TIME this _____ day of _____, 2012.

READ A THIRD TIME this _____ day of _____, 2012.

ADOPTED this _____ day of _____, 2012.

Chairperson

Corporate Secretary



SCHEDULE A

TO CVRD BYLAW NO. 3644

WATER SERVICE CONNECTION CHARGES

1. Water Service Connection

.1 EXISTING LOT (permits servicing of one unit or building).

- (a) An application for **Water Service** shall be accompanied by a payment equal to the **Water Service Connection Charge** of:

19-mm diameter connection	\$300.00
25-mm diameter connection	\$450.00

plus a deposit in the amount of the **Manager's** estimate to complete such works. The above charges and deposit must be received by the Cowichan Valley Regional District before the work can be scheduled. The deposit will be applied against the actual cost of the **Water Service Connection** installation.

- (b) Where the **Water Service Connection** has been installed by the subdivider entirely at his cost and the **Water Service Connection Charge** for each connection has been prepaid, the **Applicant** for **Water Service** shall not be required to pay any additional fees.

.2 EXISTING LOT TO BE SUBDIVIDED:

(a) Lot presently serviced:

- *First lot exempt n/a
- Each additional lot created \$3,500.00

*Where the existing **Water Service Connection** is not utilized, the **Subdivider** will pay a **Water Service Connection Charge** of \$300.00

(b) Lot not presently serviced:

- First lot...\$300.00
- Each additional lot created \$3,500.00

- (c) Pre-installed Water Connection – where the **Water Service Connection** has been installed by the subdivider entirely at his own cost, but the **Water Service Connection Charge** has not been prepaid, then the **Applicant** for **Water Service** shall be required to pay the **Water Service Connection Charge** of \$3,500.00.

.../2

.3 ADDITIONAL UNITS OR BUILDINGS:

Where a **Water Service Connection** is to be installed to additional **Units** or buildings on an existing lot and the lot is:

- (a) **Vacant:** First **Unit** or building n/a
(included under Sub-Section 1.1)
Each additional unit or building\$3,500.00
- (b) **Presently Occupied and Serviced**
Each additional **Unit** or building\$3,500.00

2. Disconnection of a Water Service Connection

Where a **Water Service Connection** is to be abandoned and must be disconnected as determined by the **Manager**, the cost to the **Owner** of the property serviced shall be based on the actual cost to complete the work required, **plus a 10% administration charge.**

3. Re-use of Abandoned Water Service Connection

Inspection fee of previously abandoned or disused **Water Service Connection:** \$50.00

4. Extension to Service Area

Where an **Extension** to the **Shellwood Water System** is required, the **Owner** of the property to be serviced shall, upon application for an **Extension**, pay the fee as calculated below:

.1 Applications to Serve Residential Developments:

- A fee of \$500.00 plus \$50.00 per dwelling unit to be created by the development.

.2 Applications to Serve Industrial and Commercial Developments:

- A fee of \$500.00 plus \$100.00 per hectare (or part thereof) of land proposed to be serviced.



SCHEDULE B

TO CVRD BYLAW NO. 3644

METERED WATER RATES AND CHARGES

The **Consumer** of **District Water** supplied through **Water Meters**, shall pay the minimum charge set out in subsection (b) below. A 10% discount will be applied for timely payment.

Water Rates and Charges per Classification per six (6) month period:

CLASSIFICATION	USER CHARGES				
	Water Use	Charge			
Group A					
Single Family Dwelling: Per Dwelling	0 - 200 m ³	\$ 200.00			
Laundromat: Minimum charge for each washing machine	201 - 300 m ³	\$ 200.00	+	1.00 per m ³ over	200 m ³
Elementary/Middle School: Minimum charge per 20 students or portion thereof	301 - 400 m ³	\$ 300.00	+	1.50 per m ³ over	300 m ³
	over 400 m ³	\$ 450.00	+	2.25 per m ³ over	400 m ³
Group B					
Apartment: Per Unit	0 - 160 m ³	\$ 150.00			
Mobile/Modular Home Park: Per Unit	161 - 240 m ³	\$ 150.00	+	1.00 per m ³ over	160 m ³
	241 - 320 m ³	\$ 230.00	+	1.50 per m ³ over	240 m ³
	over 320 m ³	\$ 350.00	+	2.25 per m ³ over	320 m ³
Group C					
Commercial: Minimum charge for each 10 employees or portion thereof per shift	0 - 130 m ³	\$ 120.00			
	131 - 195 m ³	\$ 120.00	+	1.00 per m ³ over	130 m ³
	196 - 260 m ³	\$ 185.00	+	1.50 per m ³ over	195 m ³
	over 260 m ³	\$ 282.50	+	2.25 per m ³ over	260 m ³
Group D					
Continuing Care Facility: Minimum charge for each bed	0 - 100 m ³	\$ 100.00			
	101 - 150 m ³	\$ 100.00	+	1.00 per m ³ over	100 m ³
	151 - 200 m ³	\$ 150.00	+	1.50 per m ³ over	150 m ³
	over 200 m ³	\$ 225.00	+	2.25 per m ³ over	200 m ³
Group E					
RV Trailer Park/Campground-Site Connected to Sewer: Per service pad or Site	0 - 67 m ³	\$ 66.67			
	68 - 100 m ³	\$ 66.67	+	1.00 per m ³ over	67 m ³
Restaurant: Per 10 seats or patrons, or portion thereof	101 - 133 m ³	\$ 99.67	+	1.50 per m ³ over	100 m ³
Hotel/Motel: per housekeeping unit	over 133 m ³	\$ 149.17	+	2.25 per m ³ over	133 m ³

Group F Bed & Breakfast House: includes the minimum charge for a single family dwelling unit as defined in Group A above, plus a minimum charge per each Guest Room.	0 - 40 m ³	\$ 40.00							
	41 - 60 m ³	\$ 40.00	+	1.00	per m ³ over	40	m ³		
	61 - 80 m ³	\$ 60.00	+	1.50	per m ³ over	60	m ³		
	over 80 - m ³	\$ 90.00	+	2.25	per m ³ over	80	m ³		
Group G RV Trailer Park/Campground-Site not Connected to Sewer: - Per service pad or Site	0 - 20 m ³	\$ 20.00							
	21 - 30 m ³	\$ 20.00	+	1.00	per m ³ over	20	m ³		
	31 - 40 m ³	\$ 30.00	+	1.50	per m ³ over	30	m ³		
	over 40 - m ³	\$ 45.00	+	2.25	per m ³ over	40	m ³		
Group H High School: Minimum charge per 20 students or portion thereof per shift	0 - 270 m ³	\$ 250.00							
	271 - 405 m ³	\$ 250.00	+	1.00	per m ³ over	270	m ³		
	406 - 540 m ³	\$ 385.00	+	1.50	per m ³ over	405	m ³		
	over 540 - m ³	\$ 587.50	+	2.25	per m ³ over	540	m ³		
Group I Hotel/Motel: per room or suite	0 - 50 m ³	\$ 50.00							
	51 - 75 m ³	\$ 50.00	+	1.00	per m ³ over	50	m ³		
	76 - 100 m ³	\$ 75.00	+	1.50	per m ³ over	75	m ³		
	over 100 - m ³	\$ 112.50	+	2.25	per m ³ over	100	m ³		
Group J Licensed Premises: Per 10 seats or portion thereof	0 - 83 m ³	\$ 80.00							
	84 - 125 m ³	\$ 80.00	+	1.00	per m ³ over	83	m ³		
	126 - 167 m ³	\$ 122.00	+	1.50	per m ³ over	125	m ³		
	over 167 - m ³	\$ 185.00	+	2.25	per m ³ over	167	m ³		

UNDETECTED LEAKS

User Charges will be adjusted on a one-time forgiveness basis where an detected leak on the consumer's property has resulted in water usage greatly exceeding typical usage of water, according to the applicable classification(s), and where there is no indication that water was knowingly allowed to run to waste. Written verification from the consumer describing the nature of the leakage and the action taken to rectify the problem must be shown to the satisfaction of the Manager before the one-time forgiveness will be granted. The water service must be replaced in its entirety, or for longer than typical water services a significant portion of the water service must be replaced, to prevent any re-occurrence of leakage. Consumers are required to report to the Manager within 30 days of the most recent billing date.

The leakage problem must be rectified by the consumer within 30 days upon discovery or notification of the problem. Forgiveness will only be considered for a single billing period. Additionally, a cap of \$1,500.00 per owner is in place for subsequent leaks after the first "forgiveness" of a water overage charge.

USER CLASSIFICATION DESCRIPTIONS**Single Family Dwelling:**

Applies to any connection servicing a single segregated self-contained residential dwelling used for, or intended for, the domestic use of one or more individuals as a single housekeeping unit with cooking, living, sleeping and sanitary facilities including, but not limited to, a townhouse, semi-detached residential home, duplex or a cabin.

Apartment:

Applies to any connection servicing a multiple occupancy residential building(s) with self-contained and segregated units consisting of two or more rooms used for, or intended for the domestic use of one or more individuals as a single housekeeping unit with cooking, living, sleeping and sanitary facilities.

Mobile/Modular Home Park:

Applies to a connection servicing land used or occupied for the purposes of providing space for the accommodation of mobile homes either on a rental or ownership basis. A mobile home means any structure containing one dwelling whether ordinarily equipped with wheels, or not, that is designated, constructed or manufactured to be moved from one place to another by being towed, or carried, but not including travel trailers, campers, or other vehicles exempt from the provisions of the Mobile Home Act.

RV Trailer Park/Campground:

Applies to any connection servicing land used or temporarily occupied for the purpose of providing space for the accommodation of recreational vehicles or recreational structures. A recreational vehicle or recreational structure means a vehicle, trailer, coach, tents, structure, or conveyance designed to travel, or be transported on a highway and constructed and equipped to be used as temporary living or sleeping quarters for travelers.

Where individual spaces for the above accommodations are connected directly to a **Sanitary Sewer** disposal system, the minimum charge shall be based on the charges set forth in the applicable schedule(s).

Where individual spaces or sites are not serviced directly by an individual and/or separate **Sanitary Sewer** disposal system, but have the use of common or centrally located sanitary facilities, the minimum charge shall be based on the charges set forth in the applicable schedule(s).

Hotel/Motel:

Applies to any connection servicing a building or structure that contains sleeping units for the overnight accommodation of transient paying guests. Auxiliary assembly, commerce, entertainment, or restaurant uses as well as areas licensed to service alcoholic beverages and staff accommodation shall pay the charges according to the classification set forth in the applicable schedule(s).

Where units contain cooking facilities, the minimum charge shall be based on the charges set forth in the applicable schedule(s) per housekeeping or kitchenette unit.

Where units contain sleeping and sanitary facilities only, the minimum charge shall be based on the charges set forth in the applicable schedule(s) per room or suite.

Restaurant:

Applies to any connection servicing a building or structure, or segregated self-contained unit used for, or intended to be used for, the commercial sale of refreshments, prepared or assembled food, and/or meals together with non-alcoholic beverages for sale to the public.

Licensed Premises:

Applies to the connection servicing a licensed beverage establishment as governed by the Liquor Licensing Board of British Columbia, and includes, but is not limited to pubs, restaurants, eateries, lounges, cafeterias and private clubs where alcoholic beverages are served.

Laundromat:

Applies to a connection servicing a building, self-contained unit, or separately owned business entity where washing machines are available for public use for a fee or charge.

Commercial:

Applies to a connection servicing a complex, facility, or parcel of land used to manufacture, sell, repair goods, or provide a service including, but not limited to, retail stores, offices, convenience stores, service establishments, and light industrial uses.

Elementary School and High School:

Applies to a connection servicing an institution of learning, or teaching facility, as defined by the School Act.

Continuing Care Facility:

Applies to a connection servicing a multiple occupancy complex providing long-term care, and living accommodations that include residents requiring full-time professional care, including living, sleeping, cooking, and sanitary facilities, but not including an acute care facility.

Bed & Breakfast:

Applies to any connection servicing a single family dwelling, with an accessory use for overnight accommodation for transient paying guests in which breakfast is the only meal served.

Rooming House:

Applies to any connection servicing a single family dwelling with an accessory use of rooms for rent by individuals for living and sleeping, but with common cooking and sanitary facilities shared by the occupants.



SCHEDULE C

TO CVRD BYLAW NO. 3644

UNMETERED WATER CHARGES

The **Consumer** of **Unmetered District Water** shall pay the charges set out below (A 10% discount will be applied for timely payment).

Water Rates and Charges per Classification per six (6) month period:

	<u>Charge</u>
Single Family Dwelling:	\$ 200.00
Laundromat	\$ 200.00
Elementary/Middle School	\$ 200.00
Apartment	\$ 150.00
Mobile Home Park	\$ 150.00
Commercial: Minimum charge for each 10 employees or portion thereof per shift	\$ 120.00
Continuing Care Facility Minimum charge for each bed	\$ 100.00
RV Trailer Park / Campground: Site connected to sewer, per serviced pad or site	\$ 66.67
Restaurants: Minimum charge for each 10 seats or patrons or portion thereof	\$ 66.67
Hotel / Motel - Housekeeping Unit:	\$ 66.67
Bed & Breakfast / Rooming House: The minimum charge for such facility shall include the minimum charge for a single family dwelling unit plus a minimum charge for each and every guest room	\$ 40.00
RV Trailer Park / Campground: Site not Connected to Sewer: per pad or site	\$ 20.00
High School: Minimum charge for the first 20 students or portion thereof	\$ 250.00
Hotel / Motel: Room or Suite: per room or suite	\$ 50.00
Licensed Premises: Minimum charge for each 10 seats or patrons or portion thereof	\$ 80.00

Other:

The minimum charge and the volume of water to be apportioned for a six (6) month period for other types of developments that, in the opinion of the **Manager**, do not fall within the above classifications shall be determined by the **Manager** and his decision shall be final.

Aggregate Allotment:

Where more than one of the above classifications including "**Other**" is in use, or intended for use, then the applicable charges shall be applied to each and every classification.

Single Family Dwelling

Applies to any connection servicing a single segregated self-contained residential dwelling used for, or intended for the domestic use of one or more individuals as a single housekeeping unit with cooking, living, sleeping and sanitary facilities including, but not limited to a townhouse, semi-detached, residential home, duplex and a cabin.

Apartment:

Applies to any connection servicing a multiple occupancy residential building(s) with self-contained and segregated units consisting of two or more rooms used for, or intended for the domestic use by one or more individuals as a single housekeeping unit with cooking, living, sleeping and sanitary facilities.

Mobile/Modular Home Park:

Applies to a connection servicing land used or occupied for the purposes of providing space for the accommodation of mobile homes either on a rental or ownership basis. A mobile home means any structure containing one dwelling whether ordinarily equipped with wheels, or not, that is designated, constructed or manufactured to be moved from one place to another by being towed, or carried, but not including travel trailers, campers, or other vehicles exempt from the provisions of the Mobile Home Act.

RV Trailer Park/Campground:

Applies to any connection servicing land used, or temporarily occupied for the purpose of providing space for the accommodation of recreational vehicles or recreational structures. A recreational vehicle or recreational structure means a vehicle, trailer, coach, tents, structure, or conveyance designed to travel, or be transported on a highway and constructed and equipped to be used as temporary living or sleeping quarters for travelers.

Where individual spaces for the above accommodations are connected directly to a sanitary sewer disposal system, the minimum charge shall be based on the **Allotment** of water as set forth in the applicable schedule(s).

Where individual spaces or sites are not serviced directly by an individual and/or separate sanitary sewer disposal system, but have the use of common or centrally located sanitary facilities, the minimum charge shall be based on the **Allotment** of water as set forth in the applicable schedule(s).

Hotel/Motel:

Applies to any connection servicing a building or structure, which contains sleeping units for the overnight accommodation of transient paying guests. Auxiliary assembly, commerce, entertainment, or restaurant uses as well as areas licensed to service alcoholic beverages and staff accommodation shall pay the charges according to the classification set forth in the applicable schedule(s).

Restaurant:

Applies to any connection servicing a building or structure, or segregated self-contained unit used for, or intended use for the commercial sale of refreshments, prepared or assembled food, and/or meals together with non-alcoholic beverages for sale to the public.

Licensed Premises:

Applies to a connection servicing a licensed beverage establishment as governed by the Liquor Licensing Board to British Columbia, and includes, but is not limited to pubs, restaurants, eateries, lounges, cafeterias and private clubs where alcoholic beverages are served.

Laundromat:

Applies to a connection servicing a building, self-contained unit, or separately owned business entity where washing machines are available to public use for a fee or charge.

Commercial:

Applies to a connection servicing a complex, facility, or parcel of land used to manufacture, sell, repair goods, or provide a service including, but not limited to retail stores, offices, convenience store, service establishment, and light industrial.

Elementary School and High School:

Applies to a connection servicing an institution of learning, or teaching facility, as defined by the School Act.

Continuing Care Facility:

Applies to a connection servicing a multiple occupancy complex providing long-term care, and living accommodations that include for residents requiring full-time professional care that include living, sleeping, cooking, and sanitary facilities, but not including an acute care facility.

Bed & Breakfast:

Applies to any connection servicing a single family dwelling, with an accessory use for overnight accommodation for transient paying guests in which breakfast is the only meal served.

Rooming House:

Applies to any connection servicing a single family dwelling with an accessory use of rooms for rent by individuals for living and sleeping, but with common cooking and sanitary facilities shared by the occupants.



SCHEDULE D

TO CVRD BYLAW NO. 3644

UNMETERED FIRE LINES

(a) The **Consumers** with an **Unmetered Fire Line** shall pay the rates set out in subsection (b) below:

(b) Fire Line Size (mm)	Rates (dollars per month)
25 mm	3.00
38 mm	7.50
50 mm	12.00
75 mm	30.00
100 mm	48.00
150 mm	22.00
200 mm	96.00
300 mm	144.00



SCHEDULE E

TO CVRD BYLAW NO. 3644

METER READING DATES, DUE DATES AND DISCOUNTS

(a) **Meter Reading Dates and Due Dates**

Metered Water connections serving a residential property shall normally be read during regular CVRD business hours, biannually in the Spring and the Fall, as determined by the **Manager**, with the respective payments payable on the due date specified on the invoice.

Metered Water connections servicing **Consumers** with high usage and charges may normally be read during regular CVRD business hours quarterly each year, at the discretion of the **Manager** with the respective payment due as specified on the invoice.

In the event the last day of the month falls on a Saturday, Sunday, or Statutory Holiday, the due date shall then be the last business day before the Saturday, Sunday, or the Statutory Holiday.

(b) **Transfer to Taxes**

Amounts remaining outstanding at the close of business on December 31 of each calendar year, shall be added to the property taxes and shall be deemed taxes in arrears on the property in question.



SCHEDULE F

TO CVRD BYLAW NO. 3644

HYDRANT PERMIT

The charge for drawing ***District Water*** from hydrants for purposes other than fire protection shall be as follows:

A deposit of \$300.00 per permit and refundable if the hydrant and appurtenances used in the opinion of the ***Manager*** have not been damaged.

The minimum charge shall be \$200.00 or the charge when the consumption rate is applied to the amount of water used whichever is the greater.

Consumption Rate: \$4.00 per cubic metre

A hydrant permit shall be permitted at the discretion of the ***Manager***.

The ***Manager*** shall determine and designate which hydrant, if any, shall be used.

Only the designated hydrant may be used unless otherwise approved by the ***Manager***.

The ***Manager*** reserves the right to terminate the use of the hydrant permit at any given time.

Where the actual amount of water used is unknown, the ***Manager*** may estimate the quantity used and charge accordingly.



SCHEDULE G
TO CVRD BYLAW NO. 3644
MISCELLANEOUS CHARGES

1. Testing of Water Meter

An application for testing the **Water Meter** shall be accompanied by a deposit in the amount of:

\$50.00

2. Charge to Customer

Where the **Water Meter** is found to measure the flow of water accurately: \$50.00

3. Turning **Water Service on each time:**

\$25.00

Turning **Water Service** off each time:

\$25.00

Note:

The charges for "turn on" or "turn off" shall **not** be levied where:

1. it is necessary to interrupt the supply of water so as to permit the consumer to correct faults on the building service.
2. the water is to be "turned on" for newly installed or water service connection.



SCHEDULE H

TO CVRD BYLAW NO. 3644

MISCELLANEOUS CHARGES

A flat rate parcel tax of \$58.33 per month will be invoiced to **all** properties within the service area boundary of the Shellwood Water System, pro-rated for the period of the CVRD takeover date to December 31, 2013.

This flat rate charge will be applied on a "one time" basis and will be replaced in 2014 by the application of the Parcel Tax Roll.



COWICHAN VALLEY REGIONAL DISTRICT

BYLAW No. 3645

**A Bylaw to Authorize the Preparation of a
Parcel Tax Roll for the Shellwood Water System**

WHEREAS the Board of the Cowichan Valley Regional District established the *Shellwood Water System Service Area* under the provisions of CVRD Bylaw No. 3624, cited as "CVRD Bylaw No. 3624 – Shellwood Water System Service Establishment Bylaw, 2012";

AND WHEREAS the Board of the Cowichan Valley Regional District is empowered under Section 803 of the *Local Government Act* and Section 5 of CVRD Bylaw No. 3624 to recover annual servicing costs by imposing a parcel tax on lands within the service area;

AND WHEREAS it is deemed desirable and expedient to impose a parcel tax on land benefiting from such service to meet such costs;

AND WHEREAS for the purpose of imposing a parcel tax the Board must, pursuant to Section 806.1 of the *Local Government Act*, provide for the preparation of a parcel tax roll for the service area;

NOW THEREFORE the Board of the Cowichan Valley Regional District enacts as follows:

1. CITATION

This bylaw may be cited as "**CVRD Bylaw No. 3645 – Shellwood Water System Parcel Tax Roll Bylaw, 2012**".

2. DEFINITIONS

In this bylaw, unless the context otherwise requires:

"*Parcel*" means any lot, block or other area in which land is held or into which it is subdivided, but does not include a highway.

3. PREPARATION OF PARCEL TAX ROLL

Beginning in the year 2013 and annually thereafter, a parcel tax roll shall be prepared in accordance with Division 4 of Part 7 of the *Community Charter* and will include all parcels of land within the boundary of the Shellwood Water System Service Area.

4. BASIS OF PARCEL TAX

The said parcel tax shall be imposed on the basis of a single amount for each parcel.

READ A FIRST TIME this _____ day of _____, 2012.

READ A SECOND TIME this _____ day of _____, 2012.

READ A THIRD TIME this _____ day of _____, 2012.

ADOPTED this _____ day of _____, 2012.

Chairperson

Corporate Secretary



COWICHAN VALLEY REGIONAL DISTRICT

BYLAW No. 3646

**A Bylaw to Establish a Capital Reserve Fund for the
Shellwood Water System**

WHEREAS the Board of the Cowichan Valley Regional District established the *Shellwood Water System Service Area* under the provisions of the CVRD Bylaw No. 3624, cited as "CVRD Bylaw No. 3624 – Shellwood Water System Service Establishment Bylaw, 2012";

WHEREAS the *Local Government Act* and *Community Charter* empower regional districts to establish reserve funds for specified purposes;

AND WHEREAS the Board wishes to establish a Capital Reserve Fund to be used for the purposes of constructing, altering, extending, replacing and/or upgrading the works of the Shellwood Water System;

NOW THEREFORE the Board of the Cowichan Valley Regional District enacts as follows:

1. CITATION

This bylaw may be cited for all purposes as "**CVRD Bylaw No. 3646 – Shellwood Water System Capital Reserve Fund Establishment Bylaw, 2012**".

2. ESTABLISHMENT OF FUND

A Capital Reserve Fund to be known as the "*Shellwood Water System Capital Reserve Fund*" is hereby established.

3. PAYMENTS INTO FUND

Money from current revenues or, as available, from general revenue surplus or as otherwise provided by law may be paid into the Capital Reserve Fund.

4. EXPENDITURES FROM FUND

- a) Money in the Capital Reserve Fund, and interest earned on it, shall only be used for expenditures relating to constructing, altering, extending, replacing and/or upgrading the work in the Shellwood Water System Service Area.
- b) The expenditures of funds in the Capital Reserve Fund shall be authorized by bylaw.

READ A FIRST TIME this _____ day of _____, 2012.

READ A SECOND TIME this _____ day of _____, 2012.

READ A THIRD TIME this _____ day of _____, 2012.

ADOPTED this _____ day of _____, 2012.

Chairperson

Corporate Secretary



STAFF REPORT

R5

ENGINEERING & ENVIRONMENTAL SERVICES COMMITTEE MEETING OF OCTOBER 24, 2012

DATE: October 11, 2012

FILE No: 5600-30-SHW/01

FROM: Louise Knodel-Joy, Senior Engineering Technologist

SUBJECT: Carlton Water System Management Bylaws

Recommendation:

1. That the following bylaws be forwarded to the Board for consideration of three readings and adoption:
 - .1 CVRD Bylaw No. 3647 – Carlton Water System Management Bylaw, 2012
 - .2 CVRD Bylaw No. 3648 – Carlton Water System Parcel Tax Bylaw, 2012
 - .3 CVRD Bylaw No. 3649 – Carlton System Capital Reserve Bylaw, 2012

Relation to the Corporate Strategic Plan:

Financial Impact: (Reviewed by Finance Division: *SEM*)

User fees for this system have been set at \$400 annually, or \$33.33 per month and the parcel tax will be \$600, which equates to \$50 monthly.

Background:

The Establishment Bylaw for this utility has been approved by the Ministry. Therefore, staff have now prepared the management bylaws to be forwarded to the Board for consideration of three readings and adoption. Proposed takeover of the water system is January 1, 2013.

Submitted by,

Louise Knodel-Joy
Senior Engineering Technologist
Water Management Division

Reviewed by: Division Manager:
Approved by: General Manager:

LKJ:jlb

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COWICHAN VALLEY REGIONAL DISTRICT

BYLAW No. 3647

**A Bylaw for the Regulation and Management of the
Carlton Water System**

WHEREAS the Board of the Cowichan Valley Regional District established the Carlton Water System Service Area under the provision of CVRD Bylaw No. 3627, cited as "*CVRD Bylaw 3627 - Carlton Water System Service Establishment Bylaw, 2012*", for the purpose of providing services to a defined portion of Electoral Area B – Shawnigan Lake;

AND WHEREAS it is deemed necessary and expedient that provisions be made for the regulation and management of the water system, and for terms and conditions upon which water services may be provided, and for a tariff of charges for such services;

NOW THEREFORE the Board of Directors of the Cowichan Valley Regional District, in open meeting assembled, enacts as follows:

1. CITATION

This Bylaw may be cited for all purposes as "**Cowichan Valley Regional District Bylaw No. 3647 - Carlton Water System Management Bylaw, 2012**".

2. DEFINITIONS

In this bylaw, unless the context otherwise requires:

"Allotment" means the maximum amount of water that may be used by a classification of user to which the minimum user charge for a specific billing period is applied.

"Applicant" means an owner or his agent making application for water services and from whom the District may expect to receive revenue on a continuing basis for this service.

"Carlton Water System" means the water system currently servicing the **Carlton Water System Service Area**, including all **District** water supply plants, intakes, wells, outlets, equipment, water storage tanks and reservoirs, water supply lines, pumping stations, watermains, appurtenances, water service connections, water meters and all other waterworks designated for the supply and distribution of water together with all other works related to the operation of the system, including electrical pumps and components, control systems and signal cable and all lands appropriated for such purposes and uses.

"Building Service" means a water pipe extending from the property line to the plumbing system at the building or buildings on the subject property whether for domestic, or fire use.

"Capable of Connection" means that the parcel of land abuts a street, lane, public water right-of-way or easement, upon or under which there is a main water pipe with excess capacity and that the service connection will have adequate cover at the property line.

"Carlton Water System Service Area" means the service area established and defined by bylaw within which the **District** manages and operates a Community Water System.

"Committee" means a standing committee, comprised of representatives from the **Regional Board**, which the Engineering and Environmental Services Department reports to.

"Consumer" means the **Owner** or occupant of property which is serviced by, connected to and uses **District Water**.

"District" means the Cowichan Valley Regional District.

"District Water" means water carried by the **Carlton Water System**.

"Extension" means an extension to the main water pipe forming part of the **Carlton Water System**.

"Main Water Pipe" means a pipe forming part of the public distribution system.

"Manager" means the person duly appointed General Manager of the Engineering and Environmental Services Department by the **Regional Board**, or his designate.

"Metered Water" means **District Water** supplied to **Consumers** through meters.

"Owner" means the person or persons holding a fee simple or equitable interest in land.

"Parcel Tax" means an annual tax levied on each parcel of land within the **Carlton Water System Service Area** and as established by a separate bylaw.

"Private Water Supply System" means an assembly of pipes, fittings, valves, equipment and appurtenances that supplies water from a private source.

"Regional Board" means the Board of Directors of the Cowichan Valley Regional District

"Treasurer" means the person duly appointed Treasurer by the Regional Board, or his duly appointed delegate.

"Unit" means an "area within" a building which is segregated and self-contained and, in the case of multiple units, the units may be owned or rented by different persons or organizations.

"Unmetered Fire Line" means a **Water Service** supplying **Unmetered Water** directly to **Consumers** for purposes of fire protection and does not include a watermain serving fire hydrants owned and maintained by the **District**.

"Unmetered Water" means **District Water** supplied to **Consumers** without the use of meters.

"Water Charges" means the charges set out in Schedules A, B, C, D, E, F, and G to this bylaw.

"Water Meter" means a device used for measuring water consumption and used for revenue purposes by the **District**.

"Water Rates" means the rates set out in Schedules A, B, C, D, E, F, and G to this bylaw.

"Water Service" means the conduit connecting a watermain, which is part of the **Carlton Water System**, to a building or buildings whether for domestic or fire purposes and such conduit shall consist of a **Water Service Connection** and a **Building Service**.

"Water Service Connection" shall mean the water pipe and its integral appurtenances that are placed (and generally at right angles thereto) from the watermain to near the **Owner's** property line or edge of statutory right-of-way and includes the curb stop and meter.

"Water Service Connection Charge" means the charges as set out in Schedule A.

3. **ADMINISTRATIVE POLICY**

1. (a) The responsibility for the construction, operation and maintenance of the **Carlton Water System** is hereby vested in the **Manager** who shall operate the same under the established policy of the **Regional Board**.
- (b) No construction, operation or maintenance work of any kind or nature not specifically authorized by this bylaw shall be performed on the whole or any part of the **Carlton Water System** except as authorized in writing by the **Manager**.
- (c) **Ownership Of Water System** - All water pipes, connections, appurtenances or facilities required for water distribution to the **Owner's** property line which are constructed, whether at the **Owner's** expense or **District** expense in present or future public highways or within **District** right-of-way or property, shall be the property of the **District**.
2. (a) The **District** may supply **District Water** as circumstances, equipment and water supply permit.
- (b) No **District Water** shall be supplied to any parcel of land or buildings outside of the **Carlton Water System Service Area** except by special agreement with the **District**.

- (c) All reasonable efforts will be made to ensure a supply of **District Water** to the consumer; however, the **District** does not guarantee to the **Consumer** an uninterrupted supply of **District Water** or that any standard of water pressure, water quantity or water quality will be met or maintained nor shall any failure to provide an uninterrupted supply of **District Water** or to meet any such standard be construed as neglect on the part of the **District**.
3. Any person authorized by the **Manager** shall have free access at all reasonable times, and upon reasonable notice being given to all parts of every building, chamber or other facility to which **District Water** is supplied, to inspect, observe, measure, sample and test any **Building Service** and its appurtenances within or without the building in order to ascertain whether or not the provisions of this bylaw are being obeyed.
4. (a) The **Manager** may upon reasonable notice shut off water within all or any part of the **Carlton Water System**, however, in emergency situations, notice may not be given.
- (b) The **District** is not liable for damages caused by the breaking of any **Water Service**, watermain or appurtenance.
5. In the event of water shortage, the **Manager** may prescribe restrictions on the consumption, hours of consumption, and use of **District Water**.
6. Any person(s) before proceeding with, or authorizing, any construction which is proposed to be located under, across or along any watermain or other water works forming part of the **Carlton Water System** shall notify the **Manager** in writing of his intention to proceed with the same, and if, in the opinion of the **Manager**, it becomes necessary to support or relocate such watermain or other water works, the cost of supporting or relocating the watermain or other water works shall be charged against that person and the **Manager** shall have the power to supervise and direct the supporting or relocating of such watermain or other water works.
7. Any person(s) who has proceeded with, or who has authorized any construction which is located under, over, across or along any watermain or other water works forming part of the **Carlton Water System** shall be liable for any damage caused by such construction. If the damage is not remedied to the satisfaction of the **Manager** in a reasonable time as determined by him, the **Manager** may have such damage repaired, upon giving notice to such person(s), and the cost of the repairs shall be borne by such person(s).

4. WATER RATES, CHARGES AND REVENUES

1. (a) Revenues for the **Carlton Water System** may be raised by **Water Rates, Water Charges** and **Parcel Taxes**.
- (b) If in any fiscal year the revenues generated by the rates and charges set out in subsection (a) do not meet the expenditures of the **Carlton Water System Service Area**, the deficit may be covered by a duly authorized increase in any or all of the charges set out in subsection (a) for the succeeding fiscal year.
- (c) All revenue raised by the methods herein described or authorized shall be applied to the **Carlton Water System**.
2. (a) **Consumers of Metered Water** shall be billed on the basis of their consumption of **District Water** and shall be charged **Water Rates** in accordance with Schedule B.
- (b) **Consumers of Unmetered Water** shall pay the **Water Charges** set out in Schedule C.
- (c) **Consumers with Unmetered Fire Lines** shall pay the **Unmetered Fire Line Rates** set out in Schedule D.
- (d) Persons requiring the miscellaneous services set out in Part 8 of this bylaw shall pay the **Water Charges** set out in Schedule G for such services.
- (e) No charge will be made for the volume of **Unmetered District Water** used for fire protection purposes or the testing of fire protection equipment.
3. (a) The Rates and Charges set out in Schedules A, B, C, D, E, F and G shall be subject to periodic review by the **Manager** and the Electoral Area Services **Committee** may make recommendations on the revision of the said Schedules to the **Regional Board**.
- (b) Schedules A, B, C, D, E, F and G may be revised by bylaws enacted by the **Regional Board**.

5. METERED WATER SERVICE

1. (a) All **Water Services** shall be metered unless otherwise directed by the **Manager**.
- (b) All **Consumers** shall be responsible for providing suitable plumbing for the installation of a **Water Meter**.
- (c) The **Water Meter** shall be installed on the **Water Service Connection** in a readily accessible location in close proximity to the property lines or location approved by the **Manager**.
- (d) The rates shall be due and payable at the offices of the **District** on or before the date shown in Schedule E of this bylaw.

- (e) When a new **Water Service Connection** is installed, the water rate levied shall be prorated in accordance with appropriate charges set out in Schedule B and shall be computed as follows:
 - i) Existing building – from the month following the month in which the **Water Service Connection** is completed, or one month after the water application is completed.
 - ii) New building – two months after the insulation inspection for the building has been completed, or at the discretion of the **Treasurer**.
 - (f) **Water Meters** shall be installed, sealed, maintained, repaired and disconnected only by employees or agents of the **District**, or other persons duly authorized by the **Manager**.
 - (g) The **District** shall not be responsible for any damage to buildings or property occasioned by, or in the course of, the installation, maintenance, repair or disconnection of any **Water Meter** or **Water Service Connection** provided that reasonable care has been taken by the employees or agents of the **District**, or other persons duly authorized by the **Manager**, in the course of such installation, maintenance, repair or disconnection.
 - (h) Where a metered **Water Service** is in use, all **District Water** consumed on the property shall pass through the **Water Meter** authorized by the **District** for use on the property unless the water in question is authorized by this bylaw for unmetered use.
 - (i) Where an **Unmetered Fire Line** is provided, no water shall be taken other than for fire protection or testing of the fire protection system unless authorized by the **Manager**.
 - (j) Only one **Water Meter** shall be installed on a **Water Service** whether the **Water Service** serves a single building or a number of buildings on a lot, parcel or block of land unless otherwise approved by the **Manager**. For the purposes of this section, each half of a semi-detached dwelling and each unit of street townhouses or street link houses is to be considered a single building.
 - (k) If a **Consumer** now receiving **Unmetered Water** requests that a **Water Meter** be installed on his water service connection, the **Manager** may, at his discretion, comply with such request with all related cost to be borne by the **Consumer**.
 - (l) At the time of applying for an Application for **Water Service**, the **Applicant** shall deposit an amount equal to the **Water Service Connection Charge** plus the **Manager's** estimated cost of providing the **Water Service Connection**.
2. (a) If the **Manager** directs that the **Water Meter** be installed in a meter chamber, the meter chamber shall be constructed and maintained by the **Consumer** in a manner satisfactory to the **Manager** and shall be kept accessible and safe to the employees or agents of the **District**.

- (b) The **Consumer** shall pump all water from the meter chamber if required by the **Manager**.
 - (c) The size of **Water Meters** to be installed shall be approved by the **Manager**.
 - (d) Unless otherwise approved by the **Manager**, no pipe connection shall be made to a **Water Service** other than after the outlet side of a **Water Meter**, except where required by the **Manager**, properly valved and sealed by-passes around the **Water Meter** shall be provided by and at the expense of the **Consumer**.
 - (e) **Consumers** shall immediately notify the **Manager** of any breakage, stoppage or irregularity in a **Water Meter** and/or a **Building Service** and/or the plumbing system or fixtures within the building or buildings.
3. (a) All **Water Meter** readings shall be performed under the co-ordination and control of the **Manager**.
- (b) **Water Meter** readings may be performed by duly authorized employees or agents of the **District** who must carry with them, while performing **Water Meter** reading duties, identification designating them as employees or agents of the **District**.
 - (c) **Consumers** shall provide to the duly authorized employees or agents of the **District** access to buildings, chambers or other facilities in which **Water Meters** are situated at all reasonable hours and shall facilitate such access in all reasonable ways.
 - (d) **Water Meters** shall be read annually, semi-annually, quarterly, bi-monthly, monthly or at any interval deemed necessary by the **Manager**.
 - (e) The **Treasurer** may estimate the quantity of water used by the **Consumer** since the date of the last accurate meter reading, or the last satisfactory estimate of consumption, and bill the **Consumer** accordingly, under circumstances where:
 - (i) the **Water Meter** is broken, stopped or irregular;
 - (ii) the **Water Meter** or meter seal has been disconnected, altered or tampered with in any way;
 - (iii) the **Water Meter** has been incorrectly read;
 - (iv) the **Water Meter** reading has been incorrectly recorded;
 - (v) a **Water Meter** by-pass has been used or the by-pass seal has been disconnected, altered or tampered with;
 - (vi) the person duly authorized to do so has been unable to obtain a **Water Meter** reading;
 - (vii) it is deemed necessary by the **Treasurer** for any other circumstances.
 - (f) Where the quantity of water used by a **Consumer** has been estimated pursuant to subsection (e), the **Treasurer** may, at the time of the first accurate meter reading subsequent to such estimate, make a new estimate of the quantity of water used by the **Consumer** and increase or decrease the billing to the **Consumer** accordingly.

- (g) Under circumstances where it is in the opinion of the **Manager** expedient to allow a **Consumer** to run water continuously, the **Manager** may authorize such usage and in such cases the **Treasurer** may adjust the **Consumer's** metered billing to conform with the **Consumer's** normal pattern of water use.
- 4. (a) A **Consumer**, upon written application to the **Manager** may have his **Water Meter** tested.
- (b) Every application for testing shall be accompanied by a deposit of the fee for testing **Water Meters** set out in Schedule G.
- (c) If the **Water Meter** is shown by the test to measure the flow of water within AWWA specifications, the **Consumer** shall be charged the fee for the test set out in Schedule G and the deposit set out in Section 1 shall be credited against that charge.
- (d) If the **Water Meter** is shown by the test to measure the flow of water outside AWWA specifications, whether high or low, no fee shall be charged for the test, the **Consumer's** deposit shall be returned and the **Consumer's** water bill adjusted in an amount to be determined by the **Treasurer** and the **Water Meter** shall be replaced or repaired at the cost of the **District**.

6. WATER SERVICE CONNECTION

- 1. (a) A person desiring **District Water** and who owns or occupies a building(s) on lands within the **Carlton Water System Service Area**, which abuts a watermain that is a part of the **Carlton Water System**, shall apply to have his building(s) connected to the watermain.
- (b) No connection shall be made to the **Carlton Water System** until an Application for **Water Service** has been completed and approved by the **Manager**.
- (c) An Application for **Water Service** shall be completed on a form provided by the **Manager**, and the information shall be certified to be correct and signed by the **Applicant** or his agent, and shall be completed and approved at least three weeks prior to the date by which connection to the **Carlton Water System** is requested, or as deemed a reasonable time by the **Manager**.
- (d) Where a **Water Service Connection** is to be installed as part of an **Unmetered Fire Line**, or for any use other than single family residential use, or where the proposed **Water Service Connection** is greater than 25 mm in diameter, detailed plans of the **Water Service** or **Unmetered Fire Line** acceptable to the **Manager** shall be submitted with each Application for **Water Service**.
- (e) An Application for **Water Service** shall be accompanied by a payment equal to the **Water Service Connection** charge plus a deposit in accordance with the conditions and requirements as set out in Schedule A. The deposit shall be applied against the actual cost of the **Water Service Connection** installation.

- (f) The **Manager** may refuse approval of an Application for **Water Service** where, in his opinion, the **Carlton Water System** may be adversely affected, where, in his opinion, there is insufficient water supply available or where a watermain does not abut the **Applicant's** lands.
 - (g) Every **Water Service Connection** shall be installed prior to installation of the **Building Service**. The **District** shall not be responsible for meeting the location or for connecting to an existing **Building Service** installed prior to the installation of the **Water Service Connection**.
2. An Application for **Water Service** must be completed prior to connecting the **Building Service** to the **Water Service Connection** for each separate **Water Service Connection** in housing developments built on lands subject to registered plans of subdivision where the **Water Service Connection** has been provided by the subdivider. The Application for **Water Service** will be issued at a charge set forth in Schedule A to the subdivider under these circumstances.
3. (a) Where the **Owner** of property wishes to re-use an abandoned **Water Service Connection** that previously served a building on the **Owner's** property, the **Owner** shall apply to re-use the **Water Service Connection** and such application shall require the inspection of the **Water Service Connection**. The **Owner** shall pay the inspection fee set out in Schedule A, expose the **Water Service Connection** and prepare it for inspection, and the **Manager** may, upon inspecting such **Water Service Connection**, refuse to allow the re-use of it if, in the **Manager's** opinion, it is defective. The **Manager's** opinion on this matter shall be final.
- (b) Where the **Manager** has deemed an abandoned **Water Service Connection** defective, the **Owner** shall apply for a new **Water Service Connection** and pay the charge or deposit as set out in Schedule A.
4. (a) **Building Services** shall be installed in accordance with the requirements of the British Columbia Plumbing Code, as amended from time to time, and shall be constructed by the **Owner** entirely at the **Owner's** expense.
- (b) The **Building Service** shall be maintained and repaired by the property **Owner** at his sole expense. Whenever a malfunction occurs in the **Building Service** or **Water Service Connection**, the **Owner** or occupier of the premises served shall first determine that the failure is not located in the **Building Service** before notifying the **Manager** who shall, as soon as practicable, arrange to have the **Water Service Connection** restored to serviceable condition.
5. (a) All work involved in the installation and maintenance of **Water Service Connections** shall be performed only by duly authorized employees or agents of the **District**.
- (b) Every **Water Service Connection** is to be laid, as nearly as practicable, in a generally straight line and at a right angle to the watermain.

- (c) Where the **Applicant** for a **Water Service Connection** indicates in his application a desired location for the **Water Service Connection**, the **Water Service Connection** will be located as indicated providing the proposed location is approved by the **Manager**.
 - (d) Where the **Applicant** for a **Water Service Connection** does not indicate in his application a desired location for the **Water Service Connection**, the **Water Service Connection** will be located as determined by the **Manager** and if the **Applicant** subsequently requires a relocation of the **Water Service Connection**, such relocation shall be at the expense of the **Applicant**.
 - (e) No **Water Service** shall be installed in, over or across the property of another person or located on an easement in favour of one **Owner** to another except by the written consent of the **Owners** concerned and the approval of the **Manager**.
 - (f) Only one **Water Service** shall be installed for each lot, block or parcel of land unless otherwise approved by the **Manager**.
 - (g) A **Water Service** shall be installed to each unit of semi-detached buildings, street townhouses and street link houses, except for townhouses registered under the British Columbia Strata Property Act.
 - (h) Where more than one lot, block or parcel of land under separate ownership are served by a single **Water Service**, the **Manager** may order the affected **Consumers** to disconnect from the single **Water Service** and to conform to Item f above, and all costs including those for installing new **Water Service Connections** shall be borne by the **Consumers**.
6. When a **Consumer** requires the **Water Service Connection** to his land or premises to be replaced, the existing **Water Service Connection** shall be disconnected and the cost of disconnecting the **Water Service Connection** as set out in Schedule A, shall be borne by the **Consumer**.
7. When the **Manager** determines that a **Water Service Connection** is no longer required and can be abandoned, the **Water Service Connection** shall be disconnected at the watermain and the cost of the disconnection, as set out in Schedule A, shall be borne by the **Owner** of the lot, block or parcel of land, which the **Water Service Connection** served, or was intended to serve or as otherwise directed by the **Manager**.
8. (a) The **Consumer** is responsible for the repair or replacement of a leaking or defective **Building Service** or appurtenance and if, after written notice, it is not remedied in reasonable time, the water supply may be temporarily interrupted until the necessary repairs are completed to the satisfaction of the **Manager** and the cost of such repair or replacement shall be borne by the **Consumer**.
- (b) The **Manager** may turn off or restrict the supply of water to any building in which any leaking or defective pipe, tap or fixture, or any cross connection exists and shall require that the pipe, tap or fixture be repaired or replaced by the **Consumer** in such manner as the **Manager** may approve before the water is turned fully on again.

7. USE OF WATER SERVICE FOR FIRE PROTECTION

1. (a) No person other than duly authorized employees or agents of the **District** or Local Fire Department shall operate or use any **District** or private fire hydrant.
- (b) The **Manager** may, by means of a "Hydrant Permit" issued by him, authorize the use of a specified **District** or private hydrant for a specified time under specified conditions, including the supervision of such use by the **Manager**, at the charges set out in Schedule F.
2. (a) The **Manager** may approve the supply of **District Water** to **Consumers** within the **Carlton Water System Service Area** who have **Unmetered Fire Lines** for fire protection purposes and such water may serve private fire hydrants, automatic sprinkler systems and standpipes.
- (b) An **Unmetered Fire Line** shall be separate from the domestic **Water Service**. An **Unmetered Fire Line** and a **Water Service Connection** may be combined within a public road allowance or easement providing separation takes place within the public road allowance or easement and providing a valve is installed on each branch within the public road allowance or easement.
- (c) An **Unmetered Fire Line** whether separate or combined with a domestic **Water Service** as in (b), shall be isolated to prevent back flow in accordance with the current British Columbia Building Code and the British Columbia Plumbing Code and other applicable regulations.
- (d) No **Private Water Supply System** shall be interconnected with the **Carlton Water System**.
- (e) Private fire hydrants shall be maintained by the **Consumers** thereof to the satisfaction of the **Manager** and such **Owners** may be required from time to time to establish to the satisfaction of the **Manager** that such hydrants are sound, do not leak and are in good operating order.
- (f) **Unmetered fire lines** shall be utilized for no other purpose than fire fighting without written permission from the **Manager**.

8. MISCELLANEOUS SERVICES AND REQUIREMENTS

1. (a) The **Manager** shall at the request of a **Consumer** turn the **Consumer's** supply of **District Water** "off" or "on" and the **Consumer** shall pay a fee for this service as prescribed in Schedule G.
- (b) A **Consumer** who has had his supply of **District Water** turned off shall not be required to pay the **Water Charges** while such supply is turned off, provided the "water off" charges as described in Schedule G have been paid.

2. The **Treasurer** shall, upon written request in respect to each separate parcel of land or buildings, furnish any **Applicant** with a written verification showing the arrears of **Water Charges** due on, or in respect of, any parcel of land or buildings up to the date to which such water charges were last computed, the duration of the last billing period, and the net amount billed during that period.
3. In the event of a **Building Service**, an **Unmetered Fire Line** located on private property, or a private fire hydrant becoming frozen, the **Consumer** shall notify the **Manager** and shall take steps to have such **Building Service**, Fire Line or hydrant thawed. The repair costs for damages caused by the thawing operation shall be assumed by the **Consumer**.
4. (a) Anti-tampering devices shall be installed on hydrants when deemed necessary by the **Manager**.

(b) Where anti-tampering devices are installed on hydrants in new developments such as industrial or residential subdivisions, the cost of purchasing, installing and maintaining such devices shall be borne by the developer or **Owner**.
5. Plants, shrubs, trees, hedges, fences and other structures shall not be so close to a meter box, hydrant or valve box as to obstruct the siting of, or access to, the hydrant, air relief, **Water Meter**, or valve box by duly authorized employees or agents of the **District**.
6. A driveway shall be constructed no closer than 1 metre from a hydrant.

9. BILLING & COLLECTING WATER RATES & WATER CHARGES

1. (a) All **Water Rates** and **Water Charges**, as set out in Schedules B and C, shall be payable for water consumed and services provided and shall be due and payable when rendered.

(b) Regular billings for **Water Charges** may be rendered annually, semi-annually, quarterly, bi-monthly, monthly or at any other periodic interval as set out in Schedule E, or as determined by the **Manager**.

(c) The **Treasurer** may with reasonable notice advance or delay any regular billing of **Water Rates** or **Water Charges**.

(d) To protect the **District** against potential losses from unpaid water billings, the **Treasurer** may, at his discretion, demand in writing, a security deposit by way of cash, certified cheque, letter of credit or guarantee from an **Owner** from whom delinquent charges and fees cannot be applied to property taxes.

(e) The amount of the security deposit shall be no less than an amount equal to a **Consumer's** estimated water bill for a period of 180 days.
2. (a) All water bills shall be distributed to the **Consumer** by ordinary, prepaid mail or by any other means as deemed expedient and necessary by the **Treasurer**.

- (b) **Water Rates** and **Water Charges** may at the discretion of the **Treasurer** be charged and billed to:
 - (i) the person requesting that water services be provided, or
 - (ii) the person in occupation of the building serviced by the **Carlton Water System**, or
 - (iii) the **Owner** of the building served by the **Carlton Water System**.
- (c) All **Water Rates** and **Water Charges** for services rendered to buildings having multiple units shall be charged and billed to the **Owner** of the property unless otherwise directed in writing by the **Treasurer**.
- (d) All **Water Rates** and **Water Charges** for services rendered to buildings registered under The Condominium Act shall be billed to the Condominium Corporation unless otherwise directed in writing by the **Treasurer**.
- (e) Payment may be made, with no additional service charge, by personal cheque through the mail, by personal cheque, cash or debit in person at the **District** office or at any location or via internet or telephone banking as directed by the **Treasurer**.

10. EXTENSIONS TO THE LOCAL SERVICE (WATER SUPPLY) AREA

1. (a) **Applications and Fees:**

Where, after a review of a request for servicing, the **Manager** has determined the need for an **Extension** to the **Carlton Water System** in order to provide **District Water** to property located within the boundaries of the Carlton Water System Service Area, the **Owner** of the property shall make written application for an **Extension** to the **Manager**.

The application shall be accompanied by the fee as set out in Schedule A.

(b) **Approval:**

Following a review of the proposed **Extension** of the **Carlton Water System** the **Manager** shall advise the **Applicant** in writing if the **Extension** is approved or denied.

(c) **Conditions:**

An approved **Extension** to the **Carlton Water System** may proceed provided the **Applicant** complies with the following conditions:

- i. The **Applicant** shall complete a **Water Service Connection** Application for each and every **Unit** or parcel of land to be serviced together with the applicable **Water Service Connection Charge**.
- ii. Where the **Manager** concludes the **Extension** will be undertaken by the **District**, the **Applicant** shall deposit with the **District** monies in the amount of the estimated cost of both the **Extension** and the required **Water Service Connection** as determined by the **Manager**.

- iii. Where the **Manager** grants a request by the **Applicant** for an **Extension** to be undertaken by others considered in the opinion of the **Manager** to be professionally competent, then the **Applicant** shall ensure that the work complies with the plans and specifications submitted by the **Applicant** and approved for construction by the **Manager**. Following completion of the **Extension** and other related work, the **Applicant** shall submit "As Constructed" drawings in a format acceptable to the **Manager** together with written verification that the completed work complies with the requirements of the **District**. The **Applicant** shall guarantee the work for a period of two years from the date this work is accepted by the **Manager**. The **Manager** may require certification of the above by a Professional Engineer registered in the Province of British Columbia.
- iv. The pipe size of the **Extension** shall not have less than a 150 mm inside diameter and shall include all appurtenances as determined by the **Manager**, including, but not limited, to main line valving and fire hydrants. The **Manager** may allow a 100 mm inside diameter **Extension** on a cul-de-sac, which in the opinion of the **Manager** has fire protection.
- v. The point at which the **Extension** may connect to the **Carlton Water System** shall be determined by the **Manager**.
- vi. The **Extension** to the **Carlton Water System** shall extend across the entire frontage of the property to be serviced by the **Extension** unless otherwise approved in writing by the **Manager**.
- vii. The final cost to the **Applicant** shall include all costs directly or indirectly associated with the **Extension** including, but not limited to the following items:
 - design
 - preparation of drawings, specifications and tender documents
 - approval applications to other agencies
 - survey and layout
 - legal fees
 - supervision and inspection
 - site restoration
 - upgrade of the Service Area to accommodate the proposed development.
 - testing, disinfection and sampling.

11. OFFENCES AND SANCTIONS

1. Every person who:
 - (a) hinders or interrupts, or causes or procures to be hindered or interrupted, the **District**, or any of its officers, contractors, employees or agents, in the exercise of any of the powers conferred by this bylaw;
 - (b) lets off or discharges water so that the water runs to waste out of the **Carlton Water System** unless duly authorized to do so, in writing, by the **Manager**;

- (c) being a consumer, tenant, occupant, or inmate of any house, building or other place supplied with water from the **Carlton Water System**, lends, sells, or disposes of the water, gives it away, permits it to be taken or carried away, uses or applies it to the use or benefit of another, or to any use and benefit other than his own, increases the supply of water agreed for, or improperly wastes the water;
 - (d) without lawful authority, opens or closes or tampers with any hydrant, valve, curb stop or other appurtenances or obstructs the free access to any hydrant, valve, service box, chamber, pipe, or hydrant-chamber or other appurtenances by placing on it any building material, rubbish, or other obstruction;
 - (e) throws or deposits any injurious, noxious or offensive matter into the water of the **Carlton Water System**, or upon the ice, if the water is frozen, or in any way fouls the water or commits any damage, or injury to the works, pipes, or water, or encourages the same to be done;
 - (f) removes or alters any **Water Meter** or meter seal or opens any **Water Meter** bypass placed upon any **Building Service** or connected therewith, within or without any building or other place, so as to lessen or alter the amount of water registered;
 - (g) lays or causes to be laid any pipe or main to communicate with any pipe or main of the **Carlton Water System**, or in any way obtains or uses the water without the written consent of the **Manager**;
 - (h) obstructs or refuses entry to any employee or agent of the **District** in the discharge of any duty under this bylaw;
 - (i) establishes, maintains or uses any connection to any part of the **Carlton Water System** whereby foreign matter, non-potable water, or water from a **Private Water Supply System** may enter the **Carlton Water System**;
 - (j) fails to notify the **Manager** of any breakage, stoppage or irregularity in any **Water Meter** for which he is responsible;
 - (k) fails to obey any restriction on consumption, hours of consumption and use of water pursuant to Part II, Section 5 of CVRD Bylaw No. 3209 - Ticket Information Authorization Bylaw, 2008; or
 - (l) contravenes any section of this bylaw, is guilty of an offence and on summary conviction is liable to a fine of not more than \$2,000.00 or may be imprisoned, without the option of a fine, for a term of not more than one month.
2. In addition to all other sanctions and remedies provided in this bylaw, the **Manager** may turn off or restrict the supply of water to any **Consumer** where such **Consumer** has violated any of the provisions of this bylaw and may refuse to restore normal service until the violation complained of has been terminated or remedied.

3. That pursuant to the Local Government Act, any rates, charges and/or fees which remain unpaid after December 31 in any year shall be deemed to be taxes in arrears on the property concerned, with interest on those taxes in arrears calculated in accordance the Local Government Act.

12. REMAINDER OF BYLAW TO REMAIN INTACT:

In the event that any portion of this bylaw is declared *ultra vires* by a Court of competent jurisdiction, then such portion shall be deemed to be severed from the bylaw to the intent that the remainder of the bylaw shall continue in full force and effect.

READ A FIRST TIME this _____ day of _____, 2012.

READ A SECOND TIME this _____ day of _____, 2012.

READ A THIRD TIME this _____ day of _____, 2012.

ADOPTED this _____ day of _____, 2012.

Chairperson

Corporate Secretary



SCHEDULE A
TO CVRD BYLAW NO. 3647
WATER SERVICE CONNECTION CHARGES

1. **Water Service Connection**

.1 **EXISTING LOT** (permits servicing of one unit or building).

- (a) An application for **Water Service** shall be accompanied by a payment equal to the **Water Service Connection Charge** of:

19-mm diameter connection	\$300.00
25-mm diameter connection	\$450.00

plus a deposit in the amount of the **Manager's** estimate to complete such works. The above charges and deposit must be received by the Cowichan Valley Regional District before the work can be scheduled. The deposit will be applied against the actual cost of the **Water Service Connection** installation.

- (b) Where the **Water Service Connection** has been installed by the subdivider entirely at his cost and the **Water Service Connection Charge** for each connection has been prepaid, the **Applicant** for **Water Service** shall not be required to pay any additional fees.

.2 **EXISTING LOT TO BE SUBDIVIDED:**

(a) **Lot presently serviced:**

- *First lot exempt n/a
- Each additional lot created \$3,500.00

*Where the existing **Water Service Connection** is not utilized, the **Subdivider** will pay a **Water Service Connection Charge** of \$300.00

(b) **Lot not presently serviced:**

- First lot...\$300.00
- Each additional lot created \$3,500.00

- (c) Pre-installed Water Connection – where the **Water Service Connection** has been installed by the subdivider entirely at his own cost, but the **Water Service Connection Charge** has not been prepaid, then the **Applicant** for **Water Service** shall be required to pay the **Water Service Connection Charge** of \$3,500.00.

.../2

.3 ADDITIONAL UNITS OR BUILDINGS:

Where a **Water Service Connection** is to be installed to additional **Units** or buildings on an existing lot and the lot is:

- (a) Vacant: First **Unit** or building n/a
 (included under Sub-Section 1.1)
 Each additional unit or building \$3,500.00
- (b) Presently Occupied and Serviced
 Each additional **Unit** or building \$3,500.00

2. Disconnection of a Water Service Connection

Where a **Water Service Connection** is to be abandoned and must be disconnected as determined by the **Manager**, the cost to the **Owner** of the property serviced shall be based on the actual cost to complete the work required, **plus a 10% administration charge**.

3. Re-use of Abandoned Water Service Connection

Inspection fee of previously abandoned or disused **Water Service Connection**: \$50.00

4. Extension to Service Area

Where an **Extension** to the **Carlton Water System** is required, the **Owner** of the property to be serviced shall, upon application for an **Extension**, pay the fee as calculated below:

.1 Applications to Serve Residential Developments:

- A fee of \$500.00 plus \$50.00 per dwelling unit to be created by the development.

.2 Applications to Serve Industrial and Commercial Developments:

- A fee of \$500.00 plus \$100.00 per hectare (or part thereof) of land proposed to be serviced.



SCHEDULE B

TO CVRD BYLAW NO. 3647

METERED WATER RATES AND CHARGES

The **Consumer of District Water** supplied through **Water Meters**, shall pay the minimum charge set out in subsection (b) below. A 10% discount will be applied for timely payment.

Water Rates and Charges per Classification per six (6) month period:

CLASSIFICATION	USER CHARGES				
	Water Use	Charge			
Group A					
Single Family Dwelling: Per Dwelling	0 - 200 m ³	\$ 200.00			
Laundromat: Minimum charge for each washing machine	201 - 300 m ³	\$ 200.00	+	1.00 per m ³ over	200 m ³
Elementary/Middle School: Minimum charge per 20 students or portion thereof	301 - 400 m ³	\$ 300.00	+	1.50 per m ³ over	300 m ³
	over 400 m ³	\$ 450.00	+	2.25 per m ³ over	400 m ³
Group B					
Apartment: Per Unit	0 - 160 m ³	\$ 150.00			
Mobile/Modular Home Park: Per Unit	161 - 240 m ³	\$ 150.00	+	1.00 per m ³ over	160 m ³
	241 - 320 m ³	\$ 230.00	+	1.50 per m ³ over	240 m ³
	over 320 m ³	\$ 350.00	+	2.25 per m ³ over	320 m ³
Group C					
Commercial: Minimum charge for each 10 employees or portion thereof per shift	0 - 130 m ³	\$ 120.00			
	131 - 195 m ³	\$ 120.00	+	1.00 per m ³ over	130 m ³
	196 - 260 m ³	\$ 185.00	+	1.50 per m ³ over	195 m ³
	over 260 m ³	\$ 282.50	+	2.25 per m ³ over	260 m ³
Group D					
Continuing Care Facility: Minimum charge for each bed	0 - 100 m ³	\$ 100.00			
	101 - 150 m ³	\$ 100.00	+	1.00 per m ³ over	100 m ³
	151 - 200 m ³	\$ 150.00	+	1.50 per m ³ over	150 m ³
	over 200 m ³	\$ 225.00	+	2.25 per m ³ over	200 m ³
Group E					
RV Trailer Park/Campground-Site Connected to Sewer: <u>Per service pad or Site</u>	0 - 67 m ³	\$ 66.67			
	68 - 100 m ³	\$ 66.67	+	1.00 per m ³ over	67 m ³
Restaurant: Per 10 seats or patrons, or portion thereof	101 - 133 m ³	\$ 99.67	+	1.50 per m ³ over	100 m ³
Hotel/Motel: per housekeeping unit	over 133 m ³	\$ 149.17	+	2.25 per m ³ over	133 m ³

Group F Bed & Breakfast House: includes the minimum charge for a single family dwelling unit as defined in Group A above, plus a minimum charge per each Guest Room.	0 - 40 m ³	\$ 40.00							
	41 - 60 m ³	\$ 40.00	+	1.00	per m ³ over	40	m ³		
	61 - 80 m ³	\$ 60.00	+	1.50	per m ³ over	60	m ³		
	over 80 - m ³	\$ 90.00	+	2.25	per m ³ over	80	m ³		
Group G RV Trailer Park/Campground-Site not Connected to Sewer: - Per service pad or Site	0 - 20 m ³	\$ 20.00							
	21 - 30 m ³	\$ 20.00	+	1.00	per m ³ over	20	m ³		
	31 - 40 m ³	\$ 30.00	+	1.50	per m ³ over	30	m ³		
	over 40 - m ³	\$ 45.00	+	2.25	per m ³ over	40	m ³		
Group H High School: Minimum charge per 20 students or portion thereof per shift	0 - 270 m ³	\$ 250.00							
	271 - 405 m ³	\$ 250.00	+	1.00	per m ³ over	270	m ³		
	406 - 540 m ³	\$ 385.00	+	1.50	per m ³ over	405	m ³		
	over 540 - m ³	\$ 587.50	+	2.25	per m ³ over	540	m ³		
Group I Hotel/Motel: per room or suite	0 - 50 m ³	\$ 50.00							
	51 - 75 m ³	\$ 50.00	+	1.00	per m ³ over	50	m ³		
	76 - 100 m ³	\$ 75.00	+	1.50	per m ³ over	75	m ³		
	over 100 - m ³	\$ 112.50	+	2.25	per m ³ over	100	m ³		
Group J Licensed Premises: Per 10 seats or portion thereof	0 - 83 m ³	\$ 80.00							
	84 - 125 m ³	\$ 80.00	+	1.00	per m ³ over	83	m ³		
	126 - 167 m ³	\$ 122.00	+	1.50	per m ³ over	125	m ³		
	over 167 - m ³	\$ 185.00	+	2.25	per m ³ over	167	m ³		

UNDETECTED LEAKS

User Charges will be adjusted on a one-time forgiveness basis where an detected leak on the consumer's property has resulted in water usage greatly exceeding typical usage of water, according to the applicable classification(s), and where there is no indication that water was knowingly allowed to run to waste. Written verification from the consumer describing the nature of the leakage and the action taken to rectify the problem must be shown to the satisfaction of the Manager before the one-time forgiveness will be granted. The water service must be replaced in its entirety, or for longer than typical water services a significant portion of the water service must be replaced, to prevent any re-occurrence of leakage. Consumers are required to report to the Manager within 30 days of the most recent billing date.

The leakage problem must be rectified by the consumer within 30 days upon discovery or notification of the problem. Forgiveness will only be considered for a single billing period. Additionally, a cap of \$1,500.00 per owner is in place for subsequent leaks after the first "forgiveness" of a water overage charge.

USER CLASSIFICATION DESCRIPTIONS**Single Family Dwelling:**

Applies to any connection servicing a single segregated self-contained residential dwelling used for, or intended for, the domestic use of one or more individuals as a single housekeeping unit with cooking, living, sleeping and sanitary facilities including, but not limited to, a townhouse, semi-detached residential home, duplex or a cabin.

Apartment:

Applies to any connection servicing a multiple occupancy residential building(s) with self-contained and segregated units consisting of two or more rooms used for, or intended for the domestic use of one or more individuals as a single housekeeping unit with cooking, living, sleeping and sanitary facilities.

Mobile/Modular Home Park:

Applies to a connection servicing land used or occupied for the purposes of providing space for the accommodation of mobile homes either on a rental or ownership basis. A mobile home means any structure containing one dwelling whether ordinarily equipped with wheels, or not, that is designated, constructed or manufactured to be moved from one place to another by being towed, or carried, but not including travel trailers, campers, or other vehicles exempt from the provisions of the Mobile Home Act.

RV Trailer Park/Campground:

Applies to any connection servicing land used or temporarily occupied for the purpose of providing space for the accommodation of recreational vehicles or recreational structures. A recreational vehicle or recreational structure means a vehicle, trailer, coach, tents, structure, or conveyance designed to travel, or be transported on a highway and constructed and equipped to be used as temporary living or sleeping quarters for travelers.

Where individual spaces for the above accommodations are connected directly to a **Sanitary Sewer** disposal system, the minimum charge shall be based on the charges set forth in the applicable schedule(s).

Where individual spaces or sites are not serviced directly by an individual and/or separate **Sanitary Sewer** disposal system, but have the use of common or centrally located sanitary facilities, the minimum charge shall be based on the charges set forth in the applicable schedule(s).

Hotel/Motel:

Applies to any connection servicing a building or structure that contains sleeping units for the overnight accommodation of transient paying guests. Auxiliary assembly, commerce, entertainment, or restaurant uses as well as areas licensed to service alcoholic beverages and staff accommodation shall pay the charges according to the classification set forth in the applicable schedule(s).

Where units contain cooking facilities, the minimum charge shall be based on the charges set forth in the applicable schedule(s) per housekeeping or kitchenette unit.

Where units contain sleeping and sanitary facilities only, the minimum charge shall be based on the charges set forth in the applicable schedule(s) per room or suite.

Restaurant:

Applies to any connection servicing a building or structure, or segregated self-contained unit used for, or intended to be used for, the commercial sale of refreshments, prepared or assembled food, and/or meals together with non-alcoholic beverages for sale to the public.

Licensed Premises:

Applies to the connection servicing a licensed beverage establishment as governed by the Liquor Licensing Board of British Columbia, and includes, but is not limited to pubs, restaurants, eateries, lounges, cafeterias and private clubs where alcoholic beverages are served.

Laundromat:

Applies to a connection servicing a building, self-contained unit, or separately owned business entity where washing machines are available for public use for a fee or charge.

Commercial:

Applies to a connection servicing a complex, facility, or parcel of land used to manufacture, sell, repair goods, or provide a service including, but not limited to, retail stores, offices, convenience stores, service establishments, and light industrial uses.

Elementary School and High School:

Applies to a connection servicing an institution of learning, or teaching facility, as defined by the School Act.

Continuing Care Facility:

Applies to a connection servicing a multiple occupancy complex providing long-term care, and living accommodations that include residents requiring full-time professional care, including living, sleeping, cooking, and sanitary facilities, but not including an acute care facility.

Bed & Breakfast:

Applies to any connection servicing a single family dwelling, with an accessory use for overnight accommodation for transient paying guests in which breakfast is the only meal served.

Rooming House:

Applies to any connection servicing a single family dwelling with an accessory use of rooms for rent by individuals for living and sleeping, but with common cooking and sanitary facilities shared by the occupants.



SCHEDULE C

TO CVRD BYLAW NO. 3647

UNMETERED WATER CHARGES

The **Consumer** of **Unmetered District Water** shall pay the charges set out below (A 10% discount will be applied for timely payment).

Water Rates and Charges per Classification per six (6) month period:

	<u>Charge</u>
Single Family Dwelling:	\$ 200.00
Laundromat	\$ 200.00
Elementary/Middle School	\$ 200.00
Apartment	\$ 150.00
Mobile Home Park	\$ 150.00
Commercial: Minimum charge for each 10 employees or portion thereof per shift	\$ 120.00
Continuing Care Facility Minimum charge for each bed	\$ 100.00
RV Trailer Park / Campground: Site connected to sewer, per serviced pad or site	\$ 66.67
Restaurants: Minimum charge for each 10 seats or patrons or portion thereof	\$ 66.67
Hotel / Motel - Housekeeping Unit:	\$ 66.67
Bed & Breakfast / Rooming House: The minimum charge for such facility shall include the minimum charge for a single family dwelling unit plus a minimum charge for each and every guest room	\$ 40.00
RV Trailer Park / Campground: Site not Connected to Sewer: per pad or site	\$ 20.00
High School: Minimum charge for the first 20 students or portion thereof	\$ 250.00
Hotel / Motel: Room or Suite: per room or suite	\$ 50.00
Licensed Premises: Minimum charge for each 10 seats or patrons or portion thereof	\$ 80.00

Other:

The minimum charge and the volume of water to be apportioned for a six (6) month period for other types of developments that, in the opinion of the **Manager**, do not fall within the above classifications shall be determined by the **Manager** and his decision shall be final.

Aggregate Allotment:

Where more than one of the above classifications including "**Other**" is in use, or intended for use, then the applicable charges shall be applied to each and every classification.

Single Family Dwelling

Applies to any connection servicing a single segregated self-contained residential dwelling used for, or intended for the domestic use of one or more individuals as a single housekeeping unit with cooking, living, sleeping and sanitary facilities including, but not limited to a townhouse, semi-detached, residential home, duplex and a cabin.

Apartment:

Applies to any connection servicing a multiple occupancy residential building(s) with self-contained and segregated units consisting of two or more rooms used for, or intended for the domestic use by one or more individuals as a single housekeeping unit with cooking, living, sleeping and sanitary facilities.

Mobile/Modular Home Park:

Applies to a connection servicing land used or occupied for the purposes of providing space for the accommodation of mobile homes either on a rental or ownership basis. A mobile home means any structure containing one dwelling whether ordinarily equipped with wheels, or not, that is designated, constructed or manufactured to be moved from one place to another by being towed, or carried, but not including travel trailers, campers, or other vehicles exempt from the provisions of the Mobile Home Act.

RV Trailer Park/Campground:

Applies to any connection servicing land used, or temporarily occupied for the purpose of providing space for the accommodation of recreational vehicles or recreational structures. A recreational vehicle or recreational structure means a vehicle, trailer, coach, tents, structure, or conveyance designed to travel, or be transported on a highway and constructed and equipped to be used as temporary living or sleeping quarters for travelers.

Where individual spaces for the above accommodations are connected directly to a sanitary sewer disposal system, the minimum charge shall be based on the **Allotment** of water as set forth in the applicable schedule(s).

Where individual spaces or sites are not serviced directly by an individual and/or separate sanitary sewer disposal system, but have the use of common or centrally located sanitary facilities, the minimum charge shall be based on the **Allotment** of water as set forth in the applicable schedule(s).

Hotel/Motel:

Applies to any connection servicing a building or structure, which contains sleeping units for the overnight accommodation of transient paying guests. Auxiliary assembly, commerce, entertainment, or restaurant uses as well as areas licensed to service alcoholic beverages and staff accommodation shall pay the charges according to the classification set forth in the applicable schedule(s).

Restaurant:

Applies to any connection servicing a building or structure, or segregated self-contained unit used for, or intended use for the commercial sale of refreshments, prepared or assembled food, and/or meals together with non-alcoholic beverages for sale to the public.

Licensed Premises:

Applies to a connection servicing a licensed beverage establishment as governed by the Liquor Licensing Board to British Columbia, and includes, but is not limited to pubs, restaurants, eateries, lounges, cafeterias and private clubs where alcoholic beverages are served.

Laundromat:

Applies to a connection servicing a building, self-contained unit, or separately owned business entity where washing machines are available to public use for a fee or charge.

Commercial:

Applies to a connection servicing a complex, facility, or parcel of land used to manufacture, sell, repair goods, or provide a service including, but not limited to retail stores, offices, convenience store, service establishment, and light industrial.

Elementary School and High School:

Applies to a connection servicing an institution of learning, or teaching facility, as defined by the School Act.

Continuing Care Facility:

Applies to a connection servicing a multiple occupancy complex providing long-term care, and living accommodations that include for residents requiring full-time professional care that include living, sleeping, cooking, and sanitary facilities, but not including an acute care facility.

Bed & Breakfast:

Applies to any connection servicing a single family dwelling, with an accessory use for overnight accommodation for transient paying guests in which breakfast is the only meal served.

Rooming House:

Applies to any connection servicing a single family dwelling with an accessory use of rooms for rent by individuals for living and sleeping, but with common cooking and sanitary facilities shared by the occupants.



SCHEDULE D

TO CVRD BYLAW NO. 3647

UNMETERED FIRE LINES

(a) The **Consumers** with an **Unmetered Fire Line** shall pay the rates set out in subsection (b) below:

(b) Fire Line Size (mm)	Rates (dollars per month)
25 mm	3.00
38 mm	7.50
50 mm	12.00
75 mm	30.00
100 mm	48.00
150 mm	22.00
200 mm	96.00
300 mm	144.00



SCHEDULE E

TO CVRD BYLAW NO. 3647

METER READING DATES, DUE DATES AND DISCOUNTS

(a) **Meter Reading Dates and Due Dates**

Metered Water connections serving a residential property shall normally be read during regular CVRD business hours, biannually in the Spring and the Fall, as determined by the **Manager**, with the respective payments payable on the due date specified on the invoice.

Metered Water connections servicing **Consumers** with high usage and charges may normally be read during regular CVRD business hours quarterly each year, at the discretion of the **Manager** with the respective payment due as specified on the invoice.

In the event the last day of the month falls on a Saturday, Sunday, or Statutory Holiday, the due date shall then be the last business day before the Saturday, Sunday, or the Statutory Holiday.

(b) **Transfer to Taxes**

Amounts remaining outstanding at the close of business on December 31 of each calendar year, shall be added to the property taxes and shall be deemed taxes in arrears on the property in question.



SCHEDULE F

TO CVRD BYLAW NO. 3647

HYDRANT PERMIT

The charge for drawing ***District Water*** from hydrants for purposes other than fire protection shall be as follows:

A deposit of \$300.00 per permit and refundable if the hydrant and appurtenances used in the opinion of the ***Manager*** have not been damaged.

The minimum charge shall be \$200.00 or the charge when the consumption rate is applied to the amount of water used whichever is the greater.

Consumption Rate: \$4.00 per cubic metre

A hydrant permit shall be permitted at the discretion of the ***Manager***.

The ***Manager*** shall determine and designate which hydrant, if any, shall be used.

Only the designated hydrant may be used unless otherwise approved by the ***Manager***.

The ***Manager*** reserves the right to terminate the use of the hydrant permit at any given time.

Where the actual amount of water used is unknown, the ***Manager*** may estimate the quantity used and charge accordingly.



SCHEDULE G
TO CVRD BYLAW NO. 3647
MISCELLANEOUS CHARGES

1. Testing of Water Meter

An application for testing the **Water Meter** shall be accompanied by a deposit in the amount of:

\$50.00

2. Charge to Customer

Where the **Water Meter** is found to measure the flow of water accurately: \$50.00

3. Turning Water Service on each time:

\$25.00

Turning **Water Service off** each time:

\$25.00

Note:

The charges for "turn on" or "turn off" shall **not** be levied where:

1. it is necessary to interrupt the supply of water so as to permit the consumer to correct faults on the building service.
2. the water is to be "turned on" for newly installed or water service connection.



SCHEDULE H

TO CVRD BYLAW NO. 3647

MISCELLANEOUS CHARGES

A flat rate parcel tax of \$50.00 per month may be invoiced to **all** properties within the service area boundary of the Carlton Water System, pro-rated for the period of the CVRD takeover date to December 31, 2013.

This flat rate charge will be applied on a "one time" basis and will be replaced in 2014 by the application of the Parcel Tax Roll.



COWICHAN VALLEY REGIONAL DISTRICT

BYLAW No. 3648

**A Bylaw to Authorize the Preparation of a
Parcel Tax Roll for the Carlton Water System**

WHEREAS the Board of the Cowichan Valley Regional District established the *Carlton Water System Service Area* under the provisions of CVRD Bylaw No. 3627, cited as "CVRD Bylaw No. 3627 – Carlton Water System Service Establishment Bylaw, 2012";

AND WHEREAS the Board of the Cowichan Valley Regional District is empowered under Section 803 of the *Local Government Act* and Section 5 of CVRD Bylaw No. 3627 to recover annual servicing costs by imposing a parcel tax on lands within the service area;

AND WHEREAS it is deemed desirable and expedient to impose a parcel tax on land benefiting from such service to meet such costs;

AND WHEREAS for the purpose of imposing a parcel tax the Board must, pursuant to Section 806.1 of the *Local Government Act*, provide for the preparation of a parcel tax roll for the service area;

NOW THEREFORE the Board of the Cowichan Valley Regional District enacts as follows:

1. CITATION

This bylaw may be cited as "**CVRD Bylaw No. 3648 – Carlton Water System Parcel Tax Roll Bylaw, 2012**".

2. DEFINITIONS

In this bylaw, unless the context otherwise requires:

"**Parcel**" means any lot, block or other area in which land is held or into which it is subdivided, but does not include a highway.

3. PREPARATION OF PARCEL TAX ROLL

Beginning in the year 2013 and annually thereafter, a "**Parcel**" tax roll shall be prepared in accordance with Division 4 of Part 7 of the *Community Charter* and will include all parcels of land within the boundary of the Carlton Water System Service Area.

4. BASIS OF PARCEL TAX

The said parcel tax shall be imposed on the basis of a single amount for each parcel.

READ A FIRST TIME this _____ day of _____, 2012.

READ A SECOND TIME this _____ day of _____, 2012.

READ A THIRD TIME this _____ day of _____, 2012.

ADOPTED this _____ day of _____, 2012.

Chairperson

Corporate Secretary



COWICHAN VALLEY REGIONAL DISTRICT

BYLAW No. 3649

**A Bylaw to Establish a Capital Reserve Fund for the
Carlton Water System**

WHEREAS the Board of the Cowichan Valley Regional District established the *Carlton Water System Service Area* under the provisions of the CVRD Bylaw No. 3627, cited as "CVRD Bylaw No. 3627 – Carlton Water System Service Establishment Bylaw, 2012";

WHEREAS the *Local Government Act* and *Community Charter* empower regional districts to establish reserve funds for specified purposes;

AND WHEREAS the Board wishes to establish a Capital Reserve Fund to be used for the purposes of constructing, altering, extending, replacing and/or upgrading the works of the Carlton Water System;

NOW THEREFORE the Board of the Cowichan Valley Regional District enacts as follows:

1. CITATION

This bylaw may be cited for all purposes as "**CVRD Bylaw No. 3649 – Carlton Water System Capital Reserve Fund Establishment Bylaw, 2012**".

2. ESTABLISHMENT OF FUND

A Capital Reserve Fund to be known as the "*Carlton Water System Capital Reserve Fund*" is hereby established.

3. PAYMENTS INTO FUND

Money from current revenues or, as available, from general revenue surplus or as otherwise provided by law may be paid into the Capital Reserve Fund.

4. EXPENDITURES FROM FUND

- a) Money in the Capital Reserve Fund, and interest earned on it, shall only be used for expenditures relating to constructing, altering, extending, replacing and/or upgrading the work in the Carlton Water System Service Area.
- b) The expenditures of funds in the Capital Reserve Fund shall be authorized by bylaw.

READ A FIRST TIME this _____ day of _____ , 2012.

READ A SECOND TIME this _____ day of _____ , 2012.

READ A THIRD TIME this _____ day of _____ , 2012.

ADOPTED this _____ day of _____ , 2012.

Chairperson

Corporate Secretary

**R6****STAFF REPORT****ENGINEERING & ENVIRONMENTAL SERVICES COMMITTEE MEETING
OF OCTOBER 24, 2012**

DATE: October 11, 2012 **FILE NO:** 5600-30-HBW/09

FROM: Louise Knodel-Joy, Senior Engineering Technologist, Water Management

SUBJECT: Honeymoon Bay Water System and Debt Service Area – Request for exclusion

Recommendation/Action:

That it be recommended to the Board:

1. That "CVRD Bylaw No. 2967 – Honeymoon Bay Water System Debt Repayment Service Establishment Bylaw, 2007 be amended to exclude Lot 2, Plan 5744, Section 13, Renfrew Cowichan Lake District, (PID 000-279-471), and that the amendment bylaw be forwarded to the CVRD Board for three readings and adoption.
2. That "CVRD Bylaw No. 1588 – Honeymoon Bay Local Service (Community Water Supply and Distribution) Establishment Bylaw No. 10, 1993 be amended to exclude Lot 2, Plan 5744, Section 13, Renfrew Cowichan Lake District, (PID 000-279-471), and that the amendment bylaw be forwarded to the CVRD Board for three readings and adoption.
3. That the request from Raymond and Nancy Hughes, owners of Lot 2, Plan 5744, Section 13, Renfrew Cowichan Lake District, (PID 000-279-471), to refund their 2011 and 2012 parcel taxes for Honeymoon Bay Water System and Honeymoon Bay Debt Service System be denied.

Relation to the Corporate Strategic Plan: not applicable.

Financial Impact: (Reviewed by Finance Division: )

Mr. and Mrs. Hughes, owners of Lot 2, Plan 5744 on South Shore Road in Honeymoon Bay have requested a refund in Parcel Taxes as the property is not yet connected to the Honeymoon Bay Water System (HBWS). Any refund to these residents would be paid by the remaining users of the HBWS and Honeymoon Bay Debt Service System (HBDS). The HBWS has the capacity to refund the parcel taxes in 2012. However, refunding the parcel tax for the HBDS would create a deficit in 2012 of \$245, which would be recovered by an increase from the remaining users in 2013 of \$10 per parcel. Beginning 2014, future impacts of removing this parcel from the HBDS equates to an increase of approximately \$5.00 per parcel and an increase to the HBWS users of approximately \$1.50 per parcel.

Background:

In 2007, the CVRD commenced work on the "Honeymoon Bay Water System Upgrades" that included a connection to the Sutton Creek Water System, which had been under a Vancouver Island Health Authority boil water advisory. All homes connected to Sutton Creek petitioned the CVRD to join the Honeymoon Bay Water Service Area and Honeymoon Bay Debt Service Area. As part of the Sutton Creek connection, the properties surrounding Sutton Creek were notified and asked if they were interested in joining the water system and debt service area.

As stated in the attached letter, Mr. and Mrs. Hughes claim they mistakenly signed a petition for a property that is "swamp land and not accessible to any water hookup".

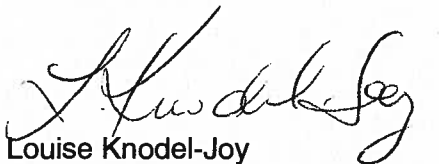
Parcel Tax fees paid for water and debt in these service areas are:

2011:	\$318.07 + \$125.40 =	\$443.47
2012:	\$317.85 + \$120.03 =	<u>\$437.88</u>
Total:		<u>\$881.35</u>

Historically, staff are aware of only one other situation where a property was excluded from the Douglas Hill water service area due to the CVRD mistakenly including it during the takeover process. Parcel Tax Roll charges paid by the owner in this case were refunded by the CVRD.

Staff are recommending that this property be excluded from the service area, but that Mr. and Mrs. Hughes' request to receive a refund in 2011 and 2012 parcel taxes be denied.

Submitted by,


Louise Knodel-Joy
Senior Engineering Technologist
Water Management Division


Reviewed by:
Division Manager:


Approved by:
General Manager:

DL/LKJ:jlb
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Raymond F. Hughes,
4378 Wildflower Lane,
Victoria, B. C. V8X 5H1,
August 2, 2012

CVRD
175 Ingram Street,
Duncan, B. C. V9L 1N8

Attention: Dave Leitch:

Re: 5600-30-HBW/01 Your letter dated May 24, 2012

Dear Mr. Leitch:

Thank you for your reply and attaching our signed copies for inclusion in the Honeymoon Bay Water system dated April 25, 2007 and June 15, 2007. Admittedly we did sign both copies, but unfortunately we made a mistake and thought they were for the same piece of property which we signed on April 25th, 2007. The second copy you sent us that we signed on June 15th, 2007 did not contain the street number and we did not look at the PID number or the Plan number, if we had we would have noticed we were agreeing to water hook up on property behind the house that is swamp land and not accessible to any water hookup. This mistake we admit was negligent on our part.

It was not and is not our intention or wish that our property PID 000-279-471 be included in the new Honeymoon Bay water system.

We would like to apply to have this property PID 000.279.471, Plan Number 5744 removed from the Honeymoon Bay Water Service Area. Please consider this our written request for removal and that it be brought forward to the CVRD Board for approval. We would also request a refund for payments already paid on the property.

Thank you for attention and action on this matter. Should you have any questions please call me at 250 658-8415 or cell 250 514-7298 or email at lunevbroshe@gmail.com.

Sincerely:

Raymond & Nancy Hughes
cc. Director Ian Morrison, Electoral Area 1
Lisa Daugenet, Engineering Technologist, Water Management Division.

**R7**

STAFF REPORT

ENGINEERING AND ENVIRONMENTAL SERVICES COMMITTEE MEETING OF OCTOBER 24, 2012

DATE: October 15, 2012 **FILE NO:** 5600-30/HBW/09

FROM: Gord Bonekamp, Senior Engineering Technologist, Water Management Division

SUBJECT: Feasibility Study for Fire Protection Water Line to Gordon Bay Provincial Park

Recommendation:

That it be recommended that staff be authorized to proceed with a Fire Protection Study for the Sutton Creek / Gordon Bay Provincial Park area, and that the study be funded to a maximum amount of \$15,000 to be withdrawn from the Electoral Feasibility Studies Function and repaid upon establishment of a CVRD function.

Relation to the Corporate Strategic Plan: Provides a reliable fire protection service.

Financial Implications: (Reviewed by Finance Division: *SEM*)

The feasibility study will be funded to a maximum cost of \$15,000, with funding provided by the CVRD Electoral Feasibility Studies Function (130). The Electoral Feasibility Studies function allows for approximately four studies a year and has not been fully committed in 2012. The function currently has a balance of \$48,531.

The proposed study will examine the possibility of providing fire protection to property owners in the area. If a function is created, all those with fire protection would pay into a debt service area, and all costs to operate the utility would be borne by the users of the system.

Background:

In 2010, the Honeymoon Bay Water System was extended to include the Sutton Creek Water System. A new 200-mm distribution main was installed to the east side of the Sutton Creek Bridge, and tied into the existing 50-mm watermain that services the local area, formerly known as the Sutton Creek Water System.

The extension of the Honeymoon Bay Water System provided a safe, reliable drinking water source to the area residents, however fire protection is only provided to the east side of Sutton Creek Bridge. The homes, RV parks and agricultural properties from the west side of the bridge to Gordon Bay Park remain without fire protection.

A further 200-mm extension of the Honeymoon Bay Water System from the Sutton Creek Bridge would provide fire protection to properties along South Shore Road to Gordon Bay Provincial Park. Currently, there is an inadequate water supply from the Honeymoon Bay Water System to provide additional connections to the existing water system, however fire protection in the area would provide more affordable fire insurance protection to those properties, as well as enhancing public safety.

The proposed study would evaluate the capital costs and provide a cost benefit analysis of the proposed water line extension, as well as to investigate the options of additional water sources for the Honeymoon Bay Water System. This analysis may ultimately lead to domestic water use being available to area residents along the proposed fire line route.

Submitted by,



For:

Gord Bonekamp, Senior Engineering Technologist
Water Management Division
Engineering & Environmental Services

Reviewed by:
Division Manager:

Approved by:
General Manager:

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CVRD

STAFF REPORT

R8

ENGINEERING & ENVIRONMENTAL SERVICES COMMITTEE MEETING OF OCTOBER 24, 2012

DATE: October 11, 2012

FILE NO: 2108

FROM: Harmony Huffman, Environmental Technologist

SUBJECT: Amendment to Bylaw No. 2108 – Solid Waste Management Charges and Regulation

Recommendation/Action:

That it be recommended that CVRD Bylaw No. 3651 – Solid Waste Management Charges and Regulations Amendment Bylaw, 2012, be forwarded to the Board for consideration of three readings and adoption.

Relation to the Corporate Strategic Plan: Responsible waste management – implementation of Solid Waste Management Plan.

Financial Impact: (Reviewed by Finance Division: *SEM*)

The proposed \$15 reduction of the organics tipping fee, to \$85 per tonne, will result in a decrease to net revenues from the organics program. However, the proposed tip fee reduction will be offset by a projected increase in volumes of material received, as well as a reduction in transportation costs in 2013. The proposed tip fee of \$85 per tonne will still be sufficient to cover projected program operating costs and will align CVRD tipping fees with those offered by private compost facilities within the region.

The addition of aggregates to recyclable materials accepted at CVRD drop-off depots will result in additional gross revenues of approximately \$15,000 per year if the proposed tipping fee of \$15 per tonne is approved. These revenues will be sufficient to cover processing fees of \$5,000 and will generate an additional \$10,000 in revenue.

Approval of these amendments to Bylaw No. 2108 Solid Waste Management Charges and Regulations is being sought prior to adoption of the 2013 budget so as to allow tipping fee changes to take effect on January 1, 2013. Other proposed amendments are housekeeping in nature and do not have a financial impact.

Background:

The following changes have been incorporated in the attached amendment to Bylaw No. 2108:

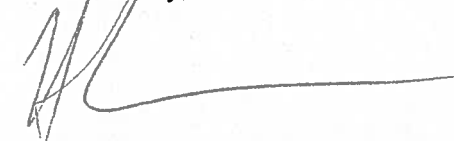
Volumes of organic waste received at the Bings Creek Solid Waste Management Complex have increased with the recent implementation of organics diversion programs in several member municipalities (from 1,000 tonnes received in 2011 to approximately 2,750 tonnes projected for 2013). Given the importance of organics diversion programs in reducing the overall waste stream, the CVRD may wish to reduce organics tipping fees (currently \$100 per tonne), in order to incent the continued diversion of this material.

Although a reduction in tipping fees will reduce net revenues generated by the organics program, the substantial increase to the volume of materials received, along with a reduction in transportation costs in 2013 (due to processing being done at Chemainus Composting), means that the program will still generate enough revenue to cover projected operating costs. Lowering organics tipping fees by a proposed \$15 per tonne, to \$85 per tonne, will also align the CVRD's tipping fees with those offered by private compost facilities within the region.

In 2012, the CVRD also sought to expand the range of recyclable materials accepted at recycling drop-off depots to include aggregates (items such as glass, bricks, porcelain, concrete etc.). A contract was recently awarded to Stone Pacific Contracting Ltd. for the processing of this material as a result of a successful proposal submitted under RFP ES-012-12. In order to accept the material at CVRD sites, Bylaw No. 2108 Solid Waste Management Charges and Regulations must be amended to include a description of the material and a tipping fee. The proposed tipping fee for aggregates is \$15 per tonne with assumed volumes of approximately 1,000 tonnes annually. At these rates, revenues received from the material will be sufficient to cover processing fees of approximately \$5,000 annually and will generate \$10,000 in revenue. This revenue will help to offset the costs of a new collection bin and drop-off bay for this material (estimated at approximately \$20,000). Purchase of a bin and construction of a drop-off bay have been included as a supplemental item in the 2013 budget, with costs to be funded out of operating surplus (no impact to requisition). The tipping fee is sufficiently low as compared to the tipping fee for garbage (currently \$140 per tonne) so as to provide a strong incentive for the diversion of aggregate materials.

Other housekeeping amendments are related to the ongoing implementation of product stewardship programs.


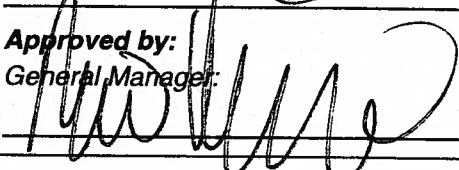
Submitted by,



Harmony Huffman, Environmental Technologist
Recycling & Waste Management

HH:jlb

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Reviewed by: Division Manager:	
Approved by: General Manager:	



COWICHAN VALLEY REGIONAL DISTRICT

BYLAW No. 3651

A Bylaw to Amend Bylaw No. 2108 – Solid Waste Management Charges and Regulations Bylaw.

WHEREAS the Board of Directors of the Cowichan Valley Regional District established a scale of charges for its solid waste disposal facilities under the provisions of Bylaw No. 2108, cited as "CVRD Bylaw No. 2108 – Solid Waste Management Charges and Regulations Bylaw, 2000";

AND WHEREAS the Board deems it desirable and expedient to amend and expand Section 2 - Definitions and revise Schedule B – Charges For Solid Waste, Controlled Waste and Recyclable Materials;

NOW THEREFORE the Board of Directors of the Cowichan Valley Regional District, in open meeting assembled, enacts as follows:

1. CITATION

This Bylaw may be cited for all purposes as "**CVRD Bylaw No. 3651 – Solid Waste Management Charges and Regulations Amendment Bylaw, 2012**".

2. AMENDMENT

a) That under Section 2 – Definitions

- .i The definition for "**Aggregate**" be deleted in its entirety and replaced with the following:

"Aggregate" means reusable or recyclable inert granular based material suitable for processing into construction fill material, including brick, concrete, asphalt, road base, gravel, rock, glass containers, plate glass, porcelain, ceramics, etc.

- ii. The definition for "**CFC Appliances**" be deleted in its entirety and replaced with the following:

"CFC appliances" means refrigeration or heating appliances designed to operate with a coolant or refrigerant containing Chlorofluorocarbon (CFC) and also a product that falls under the "Electronic and Electrical Product Category" of the *Recycling Regulation* (B.C. Reg. 449/2004) and all amending regulations under the *Environmental Management Act*.

- iii. The definition for **"Fluorescent lamp ballasts "** be deleted in its entirety and replaced with the following:

"Fluorescent lamp ballasts" means the device that serves to limit the amount of current flowing in fluorescent lamps and also a product that falls under the "Electronic and Electrical Product Category" of the *Recycling Regulation* (B.C. Reg. 449/2004) and all amending regulations under the *Environmental Management Act*.

- iv. The definition for **"Rubble"** be deleted in its entirety.

- v. The definition for **"Prohibited Waste"** be deleted in its entirety and replaced with the following:

"Prohibited Waste" means gaseous, liquid or solid waste not accepted at the **Disposal facility** including, but not limited to:

- a) **Asbestos cement**
- b) **Beverage containers**
- c) **Biomedical waste**
- d) **Bulky waste**
- e) **Commercial quantities of demolition waste**
- f) **Confidential files/reports**
- g) **Contaminated soil**
- h) **Dead animals and parts**
- i) **Gas cylinders**, except as permitted in this bylaw
- j) **Hazardous or reactive chemicals**
- k) **Hazardous waste**, except as permitted in this bylaw
- l) **Ignitable materials**, except as permitted in this bylaw
- m) **Industrial waste**
- n) **Landclearing debris**
- o) **Liquids or sludges**
- p) **Loads** containing materials that are smoldering or on fire
- r) **Petroleum by-products**
- s) **Pharmaceuticals**
- t) **Radioactive material**
- u) **Strong, offensive smelling loads**
- v) **Tight-head barrels**
- w) **Waste asbestos**

- vi. The definition for **"Recyclable Materials "** be deleted in its entirety and replaced with the following:

"Recyclable materials" means **Marketable, Source-separated** waste, including, but not limited to:

- a) **Aggregate**
- b) **Aluminum foil**
- c) **Asphalt**
- d) **Asphalt roofing**
- e) **Bulk plastic material**

- f) **Cell phones**
- g) **CFC appliances**
- h) **Commercial organic waste**
- i) **Concrete**
- j) **Directories**
- k) **Disposable batteries**
- l) **Electronic products**
- m) **Fluorescent lamp ballasts**
- n) **Fluorescent tubes**
- o) **Gasoline**
- p) **Glass containers**
- q) **Gypsum board or drywall**
- r) **Lead-acid batteries**
- s) **Metal containers**
- t) **Mixed waste paper**
- u) **Newspaper**
- v) **Non-commercial organic waste**
- w) **Non-refillable propane tanks**
- x) **Old corrugated cardboard**
- y) **Paint Products**
- z) **Pesticide products**
- aa) **Plastic material**
- bb) **Rechargeable batteries**
- cc) **Refillable propane tanks**
- dd) **Scrap lumber and wood products**
- ee) **Scrap metal**
- ff) **Scrap tires**
- gg) **Solvent and flammable liquids**
- hh) **Styrofoam**
- ii) **Thermostats**
- jj) **Used antifreeze**
- kk) **Used oil**
- ll) **Used oil containers**
- mm) **Used oil filters**
- nn) **White goods**
- oo) **Yard and garden waste**

- vii. The definition for **"White Goods"** be deleted in its entirety and replaced with the following:

"White goods" means metal appliances and fixtures such as residential clothes washers, dishwashers, clothes dryers, ranges, stoves, microwave ovens, hot water tanks, bathtubs and sinks, but does NOT include **CFC appliances** unless properly certified as having refrigerants professionally removed, and also means a product that falls under the "Electronic and Electrical Product Category" of the *Recycling Regulation* (B.C. Reg. 449/2004) and all amending regulations under the *Environmental Management Act*.

- b) That Schedule B to Bylaw No. 2108 be deleted in its entirety and replaced with Schedule B attached hereto and forming part of this Bylaw.

READ A FIRST TIME this _____ day of _____ , 2012.

READ A SECOND TIME this _____ day of _____ , 2012.

READ A THIRD TIME this _____ day of _____ , 2012.

ADOPTED this _____ day of _____ , 2012.

Chairperson

Corporate Secretary



SCHEDULE B

TO CVRD BYLAW NO. 2108

CHARGES FOR SOLID WASTE, CONTROLLED WASTE AND RECYCLABLE MATERIALS

1. The charge for depositing **Solid Waste, Controlled Wastes and Recyclable Materials** at the **Disposal facility** is:

ITEM	#	DESCRIPTION	IN-AREA CHARGE	OUT-OF-AREA CHARGE
REFUSE	1a	As measured by weight on the scale provided at the Disposal facility by the CVRD ; or	\$140.00/tonne	\$500.00/tonne
	1b	As a minimum charge for Loads weighing not more than 25 kilograms (55 pounds) and delivered by a Vehicle .	\$5.00/load	\$50.00/load
AGGREGATE, excluding glass containers	2	As measured by weight on the scale provided at the Disposal facility by the CVRD	\$15.00/tonne	Not Accepted
ASPHALT ROOFING	3	As measured by weight on the scale provided at the Bings Creek Solid Waste Management Complex Disposal facility by the CVRD .	\$120.00/tonne	Not Accepted
CFC APPLIANCES	4a	No charge for CVRD residents or non-profit groups for quantities up to 1 unit.	No Charge	Not Accepted
	4b	No charge for CVRD residents or non-profit groups for quantities greater than 1 unit if the units have had all CFCs removed by a certified professional and have been labelled as such.	No Charge	Not Accepted
	4c	Per unit charge for quantities greater than 1 unit if the units have not had CFCs removed.	\$15.00/unit	Not Accepted
COMMERCIAL ORGANIC WASTE	5	As measured by weight on the scale provided at the Bings Creek Solid Waste Management Complex Disposal facility by the CVRD .	\$85.00/tonne	Not Accepted
GYPSUM BOARD OR DRYWALL	6	As measured by weight on the scale provided at the Bings Creek Solid Waste Management Complex Disposal facility by the CVRD .	\$190.00/tonne	Not Accepted
SCRAP LUMBER AND WOOD PRODUCTS	7	As measured by weight on the scale provided at the Bings Creek Solid Waste Management Complex Disposal facility by the CVRD .	\$85.00/tonne	Not Accepted
TIRE PRODUCTS	8	No charge for CVRD residents or non-profit groups for quantities up to 4 units, per day, with an inner diameter not exceeding 43 centimetres (17 inches) each.	No Charge	Not Accepted

2. The charge for depositing **Solid waste** that is not **Source-separated waste** at the **Disposal facility** is as outlined in Section 5 of this bylaw.
3. In the event that the scales provided are not operational, or in the event of traffic congestion, or at the discretion of the **Engineer**, weights of **Loads** and **Small loads** shall be as estimated by the **Engineer** and a fee shall be charged as outlined in Section 1 above.
4. Where the charge for depositing **Solid waste** at the **Disposal facility** is described under Section 4 of this bylaw, the charge payable shall be paid following the weighing of the empty **Vehicle** after the load is deposited and shall be based on the difference in weight between the loaded weight and the weight of the empty **Vehicle**.
5. Notwithstanding Section 5 hereof, any person depositing **Solid waste** at the **Disposal facility** on a regular basis may apply in writing to the **CVRD** for credit and if the **Treasurer** is satisfied of the credit worthiness of the person, he or she may grant credit to that person, in which case payment of the charge imposed under Section 4 shall be made and the credit extended on the conditions of the application.

**R9**

STAFF REPORT

ENGINEERING & ENVIRONMENTAL SERVICES COMMITTEE MEETING OCTOBER 24, 2012

DATE: October 16, 2012 **FILE NO:** 5280-06-GHG

FROM: Kuan-Jian Foo, Senior Environmental Analyst - Energy

SUBJECT: Greenhouse Gas Inventory and Emissions Reduction Plan 2012

Recommendation:

That the attached report be received and further, that it be provided to the Environment Commission and the consulting group working on the Regional Environmental Strategy for inclusion where appropriate.

Relation to the Corporate Strategic Plan: This initiative supports all objectives of the "Healthy Environment" goal. Specifically the objective completes the annual work plan objective "Leading by Example."

1. Developing a plan to ensure the CVRD complies with the BC Climate Action Charter by 2012
2. Annual corporate GHG inventory,
3. Develop specific recommendations by department
4. Undertake asset review, develop targets and implementation plan and provide training as necessary.

In addition the plan supports a component of the action item "Develop a Climate Action Plan for CVRD infrastructure."

Financial Impact: *(None at this time)*

Background:

This plan is being developed to meet the commitments of the CVRD as a signatory of the BC Climate action Charter and member of the Federation of Canadian Municipalities Partners for Climate Protection Program.

In 2007, the CVRD voluntarily signed the BC Climate Action Charter and adopted the Federation of Canadian Municipalities (FCM) Partners for Climate Protection (PCP) program. As a signatory to the Charter, the CVRD is committed to becoming carbon neutral in its operations by 2012.

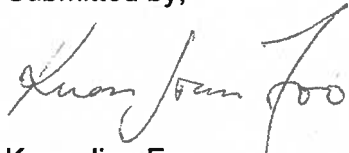
Since 2007, the Regional Environmental Policy Division, with the assistance of the Finance Department has been tracking the Greenhouse Gas (GHG) emissions from CVRD corporate operations. From the period of 2007-2011, GHG emissions have risen by 36%. In September 2012, the addition of a dedicated energy analyst to the Environmental Policy Division has added the capacity to begin addressing the CVRD's energy consumption and resulting GHG emissions.

The Greenhouse Gas Inventory and Emissions Reduction Plan 2012 seeks to establish a framework for meeting the CVRD's commitments to the Climate Action Charter and PCP by:

- Detailing the requirements for Carbon Neutrality and the PCP framework;
- Defining the baseline Greenhouse Gas Emissions inventory for the CVRD corporate operations;
- Analyzing current practice and demonstrating the need for an integrated energy management plan;
- Developing policies and actions required to provide leadership and progression from current operations to "best practice" in energy management;
- Outlining a structure for implementation;

Furthermore, the plan demonstrates that the CVRD can provide community leadership, responding to the *12 Big Things* campaign plan items: Getting real about climate change, Be energy smart, Clean the air to reduce carbon emissions, Be carbon neutral, Auditing our assets, Lead the way.



Submitted by,



Kuan-Jian Foo
Senior Environmental Analyst - Energy
Regional Environmental Policy Division

KJF:jlb

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Reviewed by: Division Manager

Approved by: General Manager




Climate control

Smart solutions that pay off.



Cowichan Valley Regional District
Corporate Greenhouse Gas Inventory & Emissions
Reduction Plan 2012

The CVRD's Environmental Policy Division offers information and advice that can help citizens, local government staff and elected officials make better decisions about the regional's environment. Our goal is to ensure our region has clean air, enough water, productive/healthy soil, sustainable resources, and a resilient ecosystem for generations to come. We offer simple cost effective tools and solutions to manage complex environmental challenges such as climate change, pollution, habitat loss and the food and energy needs of a growing population.

CVRD Environmental Policy Division

Executive Summary

The Cowichan Valley Regional District (CVRD) has developed this Corporate GHG Emissions Inventory and Reduction Plan to provide a preliminary road map to reduce energy consumption and GHGs in its corporate operations. This plan is consistent with the Regional District's voluntary commitment to the Climate Action Charter. As a signatory to the Charter, the CVRD is committed to becoming carbon neutral by 2012. In addition this plan seeks to meet the commitments the CVRD has made to the Federation of Canadian Municipalities (FCM) Partners for Climate Protection (PCP) program. This plan establishes a framework for meeting these two commitments by:

- Defining the baseline inventory of all energy consumption and GHG emissions that result from the Regional District's corporate operations
- Identifying measures already initiated by the CVRD that will increase energy efficiency or reduce corporate emissions
- Developing policies and actions to reduce energy consumption and greenhouse gas emissions in four focus areas: buildings, fleet, infrastructure, and purchasing and corporate leadership;
- Outlining a structure for implementation

Corporate Energy and GHG Emissions Profile

In 2011, the CVRD emitted 1857 tonnes of CO₂e in its delivery of its services to the community. The majority of energy consumption occurred in buildings at 72%, with the 3 large recreation centres producing the majority of the GHG emissions. The CVRD Fleet vehicles accounted for 19% of the GHG emissions and infrastructure comprising the remaining 9%.

From 2007 to 2011, the GHG emissions from the CVRD rose by 36%. In the same period, population grew by 4.5%. The current business as usual practices of the CVRD are not sufficient to address the level of energy management required to reduce GHG emissions. Strategic action must be taken above and beyond the business as usual practices in order to reverse this upward trend.

GHG Emissions Reduction Plan

There is a direct relationship between GHG emissions, energy consumption and operational costs. By making operations energy efficient, GHG emissions are reduced as well as operating budgets. Reducing the carbon footprint is best operating practice and allows the CVRD to offer its services with the best possible benefits to all of the community; present and future.

This action plan outlines the climate action commitments the CVRD has made, details the obligations it must meet, provides a snap shot of the current GHG emissions profile, and lays the foundation for a long term strategic energy management plan.

The plan provides eighteen corporate actions across the four areas of the CVRD's operations which will enable the CVRD to make progress in its goal to reduce its corporate GHG emissions. The actions described here have been identified and developed through the strategic energy management practices of successful organizations around the world.

Initiative One - Corporate Leadership

- | | |
|--------------------|--|
| Corporate Action 1 | Establish an energy conservation policy that defines specific long term goals/timelines, medium term objectives and measurable annual targets. |
| Corporate Action 2 | Require each CVRD Division to develop an emission reduction plan for their operational activities to assist the CVRD in meeting its commitments. |
| Corporate Action 3 | Create a formal incentive program where an executive sponsor recognizes employees for direct participation in the energy conservation program. |
| Corporate Action 4 | Create a Climate Action Reserve Fund to support Energy Efficiency projects. |
| Corporate Action 5 | Direct Environmental Policy Division staff to undertake detailed analysis of certified offset providers. |
| Corporate Action 6 | Incorporate life cycle costing into operational decision making. |
| Corporate Action 7 | Encourage green procurement. |
| Corporate Action 8 | Incorporate emissions tracking requirements into agreements with CVRD contracted services. |
| Corporate Action 9 | Direct Environmental Policy Division staff to pursue Milestones Two and Three of the PCP framework. |

Initiative Two: Building Operations and Construction

- | | |
|---------------------|--|
| Corporate Action 10 | Commit to building the most energy efficient and environmentally friendly facilities using a certified standard. |
| Corporate Action 11 | Require an evaluation of alternative energy sources for new construction and major renovations. |
| Corporate Action 12 | Require commissioning on all new construction and major renovations. |
| Corporate Action 13 | Require monitoring, targeting and reporting procedures on all major CVRD buildings. |
| Corporate Action 14 | Eliminate #2 heating oil as a fuel source for heating in CVRD facilities. |

Initiative Three: Fleet Operations

- | | |
|---------------------|--|
| Corporate Action 15 | Develop a CVRD vehicle purchasing policy. |
| Corporate Action 16 | Implement an efficient vehicle use initiative. |

Initiative Four: Infrastructure

- | | |
|---------------------|---|
| Corporate Action 17 | Conduct energy efficiency focused operational reviews of infrastructure annually. |
| Corporate Action 18 | Evaluate energy recovery opportunities and carbon offset potential for facilities, and waste management programs. |

Over time, some of the actions in this plan may be superseded by more relevant ones but the higher level principles set out here will continue to assist the CVRD to maintain its commitment to reducing energy consumption and GHG emissions. These principles can serve as the guide to future decision making on energy management and GHG emissions reductions.

Implementation

Five implementation activities are outlined that staff are currently involved in or are in planning stages.

Activity 1: Complete Top Level Energy Assessments of all Corporate Assets

Activity 2: Propose a Strategic Energy Policy for Review and Approval

Activity 3: Continue to Refine Corporate GHG emission data

Activity 4: Develop an Accurate Tool for Tracking Fleet Emissions

Activity 5: Report on Progress

These implementation activities provide the forward momentum and groundwork required to further the energy management strategy. They will establish the basis for targeted energy policies, strategic upgrade plans, and foster the necessary communication channels required to embed energy management into ongoing operations.

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I Introduction

I.1 Climate Change

There is consensus among the international science community that the climate is changing due to human related greenhouse gas (GHG) emissions. The Intergovernmental Panel on Climate Change (IPCC) is the leading international body for assessment of climate change, and through its extensive research has presented substantive evidence of the human effects on the ecology of the planet. In addition, climate change is expected to have serious negative effects on global economic markets and national gross domestic products.

In BC, climate change is expected to bring more extreme and unseasonal weather which could result in seasonal water shortages, potential flooding, impacts on agriculture, and further unpredictable effects on ecological systems. For local governments, this may impact demands on infrastructure, and affect energy and utility loads associated with operating facilities in increasingly variable temperatures.

The BC Climate Action Toolkit¹ estimates that local governments have control or influence over approximately 45% of provincial emissions. Local governments are unique in that they not only have control over their corporate emissions but because of their intimate relationship with the communities they serve, can influence entire community emission trends.

In 2007, the Cowichan Valley Regional District demonstrated its commitment to reducing GHG emissions by signing the BC Climate Action Charter and adopting the Federation of Canadian Municipalities (FCM) Partners for Climate Protection (PCP) program.

I.2 The BC Climate Action Charter

The BC Climate Action Charter is a provincial initiative introduced in September 2007 to encourage local governments to reduce energy and emissions from their operations. As of 2011, 180 of the 184 local governments in BC had signed onto the charter.

Signatory local governments, including the CVRD, have voluntarily committed to the charter and have agreed to develop strategies and take actions to achieve the following goals:

- being **carbon neutral**² in respect of their operations by 2012
- measuring and reporting on their community's GHG emissions profile
- creating complete, compact, more energy efficient rural and urban communities

In order to support and assist local governments in this endeavor, the Province in partnership with the Union of British Columbia Municipalities (UBCM) created the Green Communities Committee (GCC). The GCC works with local governments to develop guidance materials and provide tools and resources to attain their carbon neutral goals.

Signatories to the Climate Action Charter are currently eligible for an annual grant from the Province called the Climate Action Revenue Incentive Program (CARIP)³. The grant value is currently equal to the amount of

¹ <http://www.toolkit.bc.ca/>

² achieving carbon neutrality involves reducing GHG emissions where possible, and then purchasing carbon offsets for the remainder

³ <http://www.cscd.gov.bc.ca/lgd/greencommunities/carip.htm>

carbon tax paid by the local government and is available to those signatories that complete the annual CARIP report. This funding supports local governments in their effort to reduce GHG emissions and move forward on achieving their Charter commitments.

1.3 Partners for Climate Protection (PCP) Program

In addition to the CVRD's commitment to the BC Climate Action Charter, in 2007 it joined the Federation of Canadian Municipalities (FCM) program: Partners for Climate Protection (PCP). The PCP is the Canadian component of a larger international local government network, which involves more than 900 communities worldwide.

Along with its other 237 partner governments across Canada, the CVRD has resolved to achieve the milestones set in the PCP 5-milestone framework⁴. The five milestone process is a performance-based model designed to guide municipalities to reduce GHG emissions, each milestone providing an opportunity for municipal capacity building.

The five milestones are:

Milestone 1 - Creating a greenhouse gas emissions inventory and forecast

Milestone 2 - Setting an emissions reductions target

Milestone 3 - Developing a location action plan

Milestone 4 - Implementing the location action plan or a set of activities

Milestone 5 - Monitoring progress and reporting results

Through this report and the Community Energy and Emissions Inventory (CEEI) report⁵ provided by the provincial government, the CVRD has completed the requirements of Milestone 1. It is strongly suggested that the CVRD continue with the next milestones with Milestones 2 and 3 to be completed by 2014. The FCM's Green Municipal Fund currently provides grants for up to 50% of costs for completion of PCP Milestones 2 and 3.

1.4 The Business Case

While there is already justification for climate action based on the ecological damage caused by human GHG emissions, investing in emission reductions also generates a wide range of far-reaching benefits. These benefits can be both quantitative such as direct energy savings and qualitative like improved employee morale, public health, and public influence.

Historically, there has been a misconception that being environmentally and socially responsible is inherently more expensive. By utilizing modern accounting practices that go beyond traditional corporate methods, there is a compelling business case that justifies climate protection and allows local governments to realize new advantages for its communities. Increasingly, both public and private organizations including governments around the world are using both "life cycle costing" (LCC) and "triple bottom line"⁶ accounting,

⁴ <http://www.fcm.ca/home/programs/partners-for-climate-protection/milestone-framework.htm>

⁵ <http://www.env.gov.bc.ca/cas/mitigation/ceei/reports.html>

⁶ International Council for Local Environmental Initiatives. The Business Case for Local Government & Triple Bottom Line. <http://www.iclei.org/anz/tbl/toolkitcontents.htm>

frameworks that informs and reviews environmental, economic, and social performance. (see Appendix A for further information on these topics)

These are the tools that allow the governments to create a road map and point its community in the right direction. Each local government business case for cutting GHG emissions is unique and reflects a community's values, principles, and needs. It clearly spells out the investment required to reduce emissions and costs, how long it takes to achieve savings, and the direct and indirect benefits to the community.

For the CVRD, it is essential to create this broad vision demonstrating the positive economic, social, and environmental benefits in developing a GHG reduction and sustainability plan. Through its corporate actions, the CVRD can lead by example, showing how GHG emissions reduction and management can foster the local green economy, advance technological innovation and save money through reduced energy costs.

2 Background and Context

2.1 Carbon Neutrality

The Cowichan Valley Regional District has committed to become carbon neutral in its corporate operations beginning in 2012, as outlined in the Climate Action Charter. Achieving carbon neutrality in local government operations entails the following:

- Measure - Establish a baseline of annual GHG emissions
- Reduce - Reduce emissions as much as possible through annual reduction measures
- Balance - Balance/offset emissions to net the remaining emissions to zero
- Report - Publicly report on its GHG Emissions profile and actions annually

For most government agencies including the CVRD, carbon neutrality will be accomplished through a combination of reduction measures and offsets since it is extremely difficult to completely reduce emissions given the dynamic nature of governance and the continued growth of the community it serves. The process is cyclical, occurring each calendar year, offering the benefit of reviewing the effect of previous actions and allowing the CVRD to target those areas that offer the greatest benefit.

Measurement

Through the GCC and Province, a consistent standardized approach to GHG measurement has been developed outlining emission factors for various fuel types, including energy conversion factors and global warming potentials (GWP) for a B.C. specific context. (See Appendix B for details)

Emission Boundaries

GHG emissions are a direct product of energy use in corporate operations. The Climate Action Secretariat clearly outlines the measurement boundaries in order to maintain a consistent approach for carbon reporting across the province.

The boundaries are defined as 'Traditional Municipal Services' and are listed below:

- Administration and Governance
- Drinking, Storm and Waste Water
- Solid Waste Collection, Transportation and Diversion
- Roads and Traffic Operations
- Arts, Recreation and Cultural Services
- Fire Protection

Local governments are required to report on emissions that are directly related to these services *if* they provide them. In addition, they are required to include GHG emissions from contracted services (“contracted emissions”) as part of their carbon neutral commitment. (see Appendix E for details)

Balance and Offsetting Corporate GHG Emissions

To achieve carbon neutrality under the Climate Action Charter, governments must find ways to balance their GHG emissions each year. The GCC Carbon Neutral framework sets out 3 distinct options to achieve this:

Option 1 - Invest in GCC Supported Projects - allows local governments to invest locally (*outside* the corporate emission boundary) while also ensuring that projects are credible and result in measurable GHG reductions. The GCC currently provides four types of projects:

- energy efficient building retrofits/fuel switching
- solar hot water
- household organic waste composting
- low emissions vehicles

Option 2 - Invest in Alternate Community GHG Reduction Projects - allows for project ideas beyond option 1 that could be undertaken *outside* their corporate emissions boundary

Option 3 - Purchase Offsets from a Credible Provider - a simple and cost effective way for most local governments to offset their corporate emissions. Although this is a relatively inexpensive and simple option, its disadvantage is that offsets will likely not occur within the community.

Local governments can pick any combination of the 3 options to balance/offset their annual GHG emissions.

Carbon Costs and Rebates

Local governments in BC currently have 2 carbon liabilities - first is the BC "carbon tax" associated with fossil fuel purchase, and the second is the voluntary purchase of carbon offsets to become carbon neutral (currently priced at \$25/tonne in BC). At its 2011 GHG emission rate, the CVRD would have to invest approximately \$49,000 to meet its carbon neutral commitment.

At the current time, both of these carbon costs have been waived for governments working toward carbon neutrality. The carbon tax is currently being refunded as a grant under the CARIP program.

With the recognition that achieving carbon neutrality is a challenging endeavor, In June 2011 the GCC developed a proposal to local governments called "*Making Progress toward Carbon Neutrality*". The intent is to provide some flexibility for signatories who may not be able to achieve the 2012 target date.

This approach allows, in the short term, governments to demonstrate their commitment to GHG reductions by completing some of the requirements (eg. measure, reduce, report) to be designated "making progress towards" but not claim "carbon neutral" in their public reporting.

It is important to note that these are both the CARIP and "Making Progress Towards" are assistance measures enacted to enable local governments in their transition to carbon neutral in the short term with the savings intended to be used to help in the transition.

Climate Action Reserve Fund

One concept that is being adopted by some local governments that are "making progress towards carbon neutrality," is to set aside the dollars that they would otherwise use to purchase offsets in the Carbon Neutral framework. These funds are put into a climate action reserve fund to budget for future emission reduction projects, support local climate actions, and purchase future carbon credits.

2.2 Unique Considerations for the Cowichan Valley Regional District

Like many Regional Districts, the CVRD has unique considerations which may provide some challenges when managing energy and GHG emissions.

Large and Geographically Diverse Service Areas

The CVRD service area spans four municipalities and nine electoral areas, spreading over 349,446 hectares (3,494 kilometers). Facilities, vehicles, and services are dispersed accordingly.

In addition, the distribution of the population throughout the municipalities and regional electoral areas offers unique funding and service challenges.

Regional District Structure

Because regional districts are required to match the benefits and costs of its services to the people that benefit from the service, it can be challenging to allocate resources for broader projects that benefit the greater population.

The distributed management of assets, particularly in facilities also offers challenges in developing common best practices and advancement in energy management.

A Climate Action Reserve Fund may assist in bridging these difficulties by using funds from its own reserve pool solely for the purpose of achieving climate action goals and objectives.

Fleet

The CVRD operates a relatively small number of fleet vehicles, with many performing multiple tasks in varied locations across a large geographic area. Additionally, the CVRD operates specialty vehicles (e.g. fire trucks and ice resurfacing machines), some without alternatives and others only available at considerable investment.

In addition, the CVRD currently contracts its curbside collection to a third party collector on its behalf. Controlling third party emissions is an additional challenge and must be communicated in policies for RFPs and contracts. This is currently not accounted for in the CVRD's GHG emissions profile but will be added as per the GCC requirements.

Fuel Types

The CVRD has 119 BC Hydro electrical accounts, 7 Fortis BC natural gas accounts, as well as several propane and multiple heating oil accounts. Because of the diversity of the region, certain fuels are unavailable in certain areas making fuel switching choices limited and on a case-by-case situation.

The CVRD currently consumes electricity, natural gas, propane, #2 heating oil, and biodiesel in its buildings and gasoline, diesel, biodiesel, and electricity in its fleet.

Regionally Shared Facilities and Services

In the CVRD a range of municipalities and electoral areas contribute funding for the operation and maintenance of regional recreation facilities. Under the recommendations of the GCC it is appropriate to allocate GHG emissions from these shared functions according to the funding model. This needs to be confirmed and adopted by all parties so GHG emissions are accounted for accurately.

Staff Resources

Buildings, infrastructure and fleet are managed by regional district staff who are limited in time, resources, and knowledge to pro-actively manage energy use and implement energy efficient policies and upgrades on their own.

2.3 GHG Emissions Inventory Methodology

The CVRD's initial GHG inventory and analysis for 2007 was built on an analysis of the CVRD financial records and systems for each year since 2007. This required systematically retrieving financial records for purchases of energy related to building and utility use and calculating GHG emissions based on volume or unit of energy consumed. Totalling these for the entire year determined the overall CVRD emission picture. The financial records system was not designed to extract data of this sort and in this manner. For example, while records of gasoline purchase costs were available through the financial records, volume of fuel used was unavailable. In addition, it was difficult to allocate the fuel use to a particular division or vehicle. As such, a number of proxies were required in the beginning to provide general or adjusted estimates of fuel use or user groups.

Working with the finance department during the 2008 period provided an opportunity to track energy purchases for cost, volume and ownership being a component of the primary procedures within the accounting department. This reduced the need to have additional staff retrieve records to duplicate input and analysis.

In 2008, the initiative focused on working with the provincial government and the provincial Green Communities Committee to explore how local governments could develop a standardized methodology for systematically developing meaningful inventories of emissions.

In 2010, the Environmental Policy Division in partnership with the CVRD Finance Department developed an approach and shared mechanism to more strategically align existing billing and financial tracking of energy and GHG based data across the organization. Working with the province, the CVRD was chosen as a regional district case study to trial the provincial online software "SMARTTool". This resulted in the CVRD having increased capacity and the support of the Provincial Government to fast track collection and communication of their emissions data. The CVRD was also able to contribute recommendations to the Union of BC Municipalities (UBCM) working group, which advised that all local governments utilize the provincial software as a cost effective and user friendly reporting tool.

In 2011, increased staff capacity in the Environmental Policy Division in the last quarter of 2010 and first quarter of 2011 resulted in an ability to produce a corporate inventory that is meaningfully derived from refined data relevant to specific corporate business lines and activities. With the introduction of the Senior Environmental Analyst – Energy position in 2012, further refinements of the system and data has been possible. This increased capacity to review and analyze data on a more frequent basis will allow the development of highly accurate accounting of GHG emissions, the fuel sources it's derived from, and strategies to reduce them.

The CVRD has continued to work with the GCC, further refining the "SMARTTool" software by requesting data capabilities to include the ability to report fuel consumption and GHG emissions on a per vehicle basis. This is possible for the CVRD because of the use of individual fuel cards for each fleet vehicle. This level of view combined with annual mileage data will offer great insight into fleet vehicle use and allow for strategic targeting of GHG emissions reductions for division managers and fleet purchasers.

Future Inventory Inclusions

In order to meet the GCC guidelines for GHG emissions reporting, the CVRD must include fossil fuels from contracted services as outlined in the requirements in Emissions Boundaries section of this report. In addition, the CVRD will also include the proportional energy use of the Economic Development Division who lease office space in the Community Futures building on 135 Third Street.

3 CVRD Energy and GHG Inventory

3.1 2011 Energy Consumptions and GHG Emissions Profile

In 2011, GHG emissions from the Cowichan Valley Regional District corporate operations resulted in 1857 tonnes of CO₂e. A summary of GHG emissions by sector is provided in Table 1.

Table 1: Corporate GHG Emissions by Sector (2011)

Sector	GHG Emissions (tonnes of CO ₂ e)
Buildings	1,417
Vehicle Fleet	342
Water and Sewage	80
Solid Waste	12
Streetlights	6
Total	1,857

Buildings within the CVRD have the majority of GHG emissions producing 72% of the total emissions. This is not surprising since the CVRD operates 3 major recreation centres with highly energy intensive ice skating arenas. A summary of energy consumption and GHG emissions by energy source is showed in Table 2 for buildings and infrastructure.

Table 2: Building and Infrastructure GHG Emissions by Energy Source (2011)

Source	Energy Consumption (GJ)	GHG Emissions (tonnes of CO ₂ e)
Electricity	35,699	246
Natural Gas	17,940	895
#2 Heating Oil ⁷	2,796	200
Propane	2,661	162
Diesel ⁸	94	6.8
Total	59,188	1510

CVRD buildings are consuming the greatest proportion of energy and emitting the largest amounts of GHG emissions. Within these buildings, heating and cooling systems can account for up to 60% of energy use in the building and offer the greatest opportunities for GHG emission reductions. System re-commissioning, fuel switching and accelerated upgrades of heating systems to high efficiency units with better controls can potentially provide a 10-20% reduction in GHG emissions.

⁷ #2 heating oil used by the CVRD is BioHeat from Columbia Fuels which has 5% Biodiesel, a carbon neutral component

⁸ Used for backup generators

Table 2 also clearly shows the difference in GHG emissions between hydro electrical sources compared to its fossil fuel counter parts. While the energy consumption of electricity was almost 13 times greater than that of #2 heating oil, the GHG emissions are only 1.23 times larger. A retrofit of building heating systems to replace heating oil furnaces and boilers with high efficiency electric heat pumps would reduce the CVRD's overall GHG emissions by almost 10%.

More detailed reporting into the building energy systems of the CVRD will be provided in the upcoming energy management first quarterly report from the CVRD Energy Analyst in December 2012.

Table 3: Fleet GHG Emissions by Energy Source (2011)

Source	Energy Consumption (L)	GHG Emissions (tonnes of CO ₂ e)
Gasoline	52,247	125
Diesel	83,171	222
Propane	2,012	3
Marine Gasoline	400	0.92
Total		351

Table 3 displays emissions by fleet fuel source. Within the CVRD fleet, diesel fuel has the highest volume consumption and has the highest overall GHG emissions. There is potential to reduce diesel fuel consumption through the use of carbon neutral biodiesel produced locally by the Cowichan Biodiesel Co-Operative. An initiative has already started in this direction and should be supported and continued. A 25% use of biodiesel in the CVRD fleet will reduce GHG emissions from diesel by the same amount.

Propane is consumed for the ice resurfacing machines operated at the 3 arenas. There are now options for electric machines that will eliminate this propane consumption. Although, initial investment is high for these machines there are additional benefits for the ice arenas including better air quality and reduced heating load for the cooling system.

Gasoline consumption can be targeted by examining fleet vehicles and use by departments and examining the viability of alternative options such as hybrids and high efficiency vehicles.

Emissions by Division

For the CVRD it is useful to examine GHG emissions from a division standpoint. It offers a useful view for understanding the balance of emissions and a starting point for the strategic targeting of emission reductions.

Table 4: Stationary GHG Emissions by CVRD Division (2011)

CVRD Divisions	GHG Emissions (tonnes of CO ₂ e)	Carbon Offsets Required (@\$25/tonne)
Administration and Governance	13.71	\$343
Drinking, Storm and Waste Water	194.39	\$4,860
Parks, Recreation, Culture	1346.66	\$33,667
Public Safety	57.06	\$1,425
Recycling and Waste Management	11.49	\$287

Street Lighting	6.29	\$157
Total	1629.6	\$40,740

From Table 4, it is clear that the majority of stationary GHG emissions arise from the large recreation centres and arenas operated by the Parks, Recreation and Culture division. The second largest producer of GHG emissions is the Drinking, Storm and Waste Water division infrastructure.

Included in the table is the carbon offset value required to meet the Climate Action Charter commitments. This is an important area for discussion by the CVRD as it decides how to allocate funds to meet its carbon neutral commitments and where these funds should originate from.

Table 5: Fleet GHG Emissions by CVRD Division (2011)

CVRD Division	GHG Emissions (tonnes of CO ₂ e)	Carbon Offsets Req'd (@\$25/tonne)
Administration and Governance	19	\$482
Drinking, Storm and Waste Water	0.55	\$14
Parks, Recreation, Culture	50	\$1250
Public Safety	31	\$786
Recycling and Waste Management	240	\$6000
Total	342	\$8550

Table 5 displays the GHG emissions from fleet vehicles for 2011. Further investigation is required into the value derived for the Drinking, Storm and Waste Water division as this value is much lower than previous years.

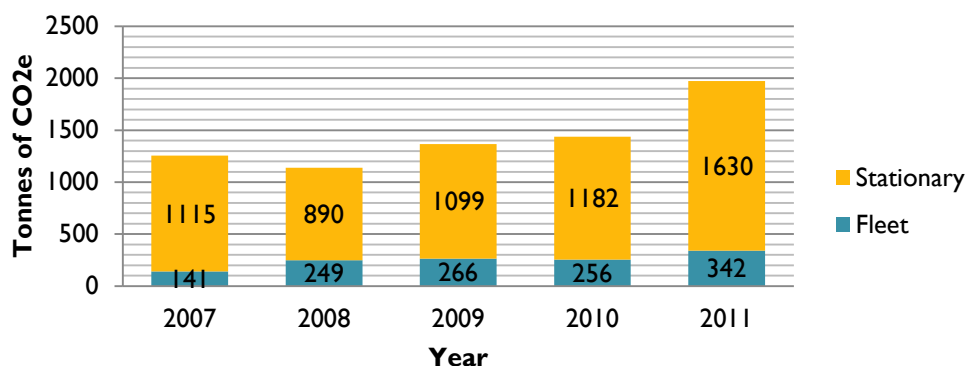
In future reviews of fleet there will be available detailed data on a per vehicle basis, including annual mileage. This will provide insight into the way vehicles are used by each department allowing for "right-sizing" and development of a fleet GHG emissions reduction strategy.

GHG Emissions 2007-2011

As the corporate operations of the CVRD are a dynamic and evolving system, it is useful to examine the change in the GHG Emissions profile over time.

Figure 1 shows that over the 5 years since the CVRD signed the Climate Action Charter, GHG emissions from corporate operations has grown overall by 36%. Fleet emissions have increased by 141% while stationary emissions from buildings and infrastructure have gone up by 46%.

Increase in emissions over this period can be attributed to growth in population; increase in number of CVRD managed infrastructure and services; an increase use of recreation facilities; climatic changes and the aging of equipment and infrastructure. It is clear however, that there is significant work to be done to manage emissions and reverse this upward trend.

Figure 1: CVRD GHG Emissions 2007-2011⁹

GHG Emissions Forecast

As per the requirements of the PCP Milestone One, a ten year forecast of GHG emissions was developed for the period of 2011 to 2023. The Business as Usual (BAU) forecast is driven by an 11% population growth for the period¹⁰, and future plans for construction and infrastructure. It also considers both natural efficiency improvements in technologies and efficiency improvements expected as a result of senior government policy. The BAU is a guideline of where things could go if no action is taken by the CVRD.

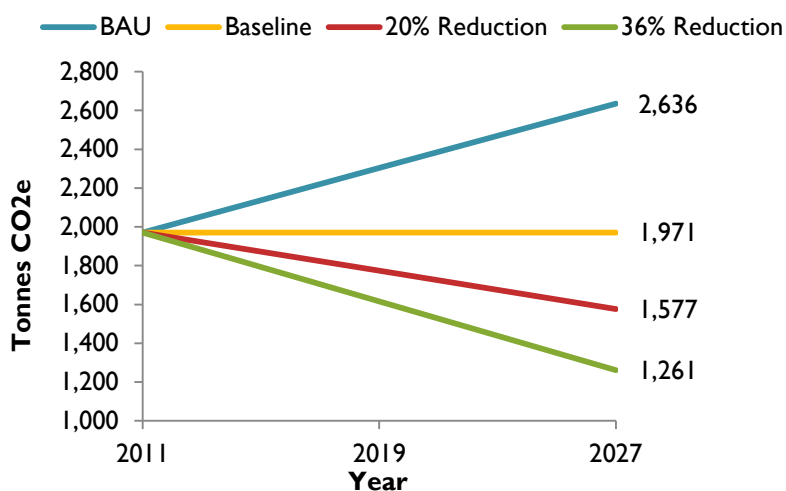


Figure 2: CVRD GHG Emissions

Forecast 2011-2023

The 20% reduction forecast shows the suggested target for PCP Milestone 2 and the 36% reduction is to illustrate the required reduction to achieve 2007 emissions levels.

A strategic GHG emissions management program can help to reverse the upward trend of GHG emissions. By intimately understanding the cause and effect relationship between energy use and emissions in each of its operations, it is possible for the CVRD to gain control over its energy use and significantly reduce its corporate GHG emissions.

⁹ Figure 1 displays gross emissions

¹⁰ BCStats – Population Estimates

<http://www.bcstats.gov.bc.ca/StatisticsBySubject/Demography/PopulationEstimates.aspx>

4 Developing a Strategic Plan

4.1 Current Emissions Initiatives

In developing a plan for GHG emissions reductions it is useful to examine current energy management practices for facilities and fleets. Since energy use is directly linked to GHG emissions, this initial examination can provide important insight into the current practices for energy management, existing fuel sources, building use, age of equipment and fleet operation and management. In addition, this overview allows for an understanding of the culture of the organization and attitude towards energy conservation. Further discussion on the findings of the facility operations will be provided by the Energy Analyst in an energy management report in December 2012.

Provided here is an overview of some of the major energy conservation and GHG emission reduction projects being undertaken by the CVRD in the last few years.

Facilities and Infrastructure:

Facility and infrastructure operations are constantly maintaining and upgrading their equipment to maintain reliability and to keep their services operational for the public. In addition, facility managers and infrastructure operators are looking for cost savings by implementing energy reduction initiatives.

Some examples of recent upgrades include major lighting retrofits at all of the recreations centres, heating system upgrades, motion sensor controls, motor control upgrades for water systems, and various heat recovery projects.

Fleet:

A number of departments at the CVRD are purchasing biodiesel for use in their associated fleet vehicles. The emissions from biodiesel are considered carbon neutral, and are exempt from offsetting. In association with the Cowichan Biodiesel Co-Operative, there is a biodiesel/diesel blending pump being installed at the Bing's Creek Solid Waste Management Complex that will allow diesel CVRD fleet vehicles to select the appropriate blend for their equipment and time of the year.

Many of the departments are also selecting gas/electric hybrid vehicles for their fleet, improving the gas mileage of their vehicles and significantly reducing the resulting emissions from gasoline usage. In addition, the Engineering and Environment department purchased a Nissan Leaf, plug-in electric vehicle that is 100% electric and emission free.

The transit department has received a grant and is also in the process of installing 3 electric vehicle charging stations – one at each of the recreation centres to be completed in 2012.

Corporate Leadership:

In the summer of 2011, CVRD management participated in a BC Hydro energy management assessment (EMA) workshop with the goal of depicting the current overall business practices of the CVRD and provide a road map for the development and implementation of a Strategic Energy Management Plan.

With support funding from BC Hydro, the CVRD was able to hire an Energy Analyst in September 2012 dedicated to the management of the energy conservation program, execution of technical projects, and to provide a comprehensive assessment of energy efficiency opportunities.

The CVRD energy analyst has been taking the first steps towards developing the strategic energy management plan. Review of the corporate assets, energy accounts, division operations, and personnel as

well as current energy management practices will be available in the first quarterly Energy Management report, December 2012. Additionally, the first quarterly report will provide guidance on setting energy reduction targets, policy to be adopted, and key areas that require further analysis.

4.2 Action Plan Development

The strong upward trend in GHG emissions at the CVRD juxtaposed against the current GHG emission initiatives clearly shows that a more strategic approach is required to manage energy use and reduce GHG emissions. The CVRD is not alone in facing these challenges as globally, governments and private organizations seek ways to cut energy use and GHG emissions.

Out of this global effort towards sustainable operations, a common thread has appeared in those organizations that have been successful. For all of them, the most important factor has been the development of an Energy Management System, including annual Strategic Energy Management Plans with short term targets chosen to meet the organizations longer term environmental goals.

In North America, the biggest leader in this field in the private sector has been the company 3M, who have had an energy management program since 1973. 3M's energy management program is at the heart of its operations, integrated into the corporate strategic planning process and sets oversight and guidance for division level planning. The program has resulted in an 80% improvement in its energy efficiency since its inception and continues to deliver energy efficiency and environmental benefits year after year.

The City of North Vancouver has had an energy management plan in place since 2005 and has been using strategic energy management practices to identify and set targets for reducing their corporate GHG emissions. In 2005, the city of North Vancouver council adopted policy to reduce corporate GHG emissions by 20% below their 1995 baseline by 2010. In 2011, through a complete review of their energy management plan the city set new goals for a 25% reduction of GHG emissions by 2020 below their 2007 baseline with interim targets of 5% by 2013 and 15% by 2016. In addition, the city of North Vancouver completed the 5th milestone of the Partners for Climate Change program in 2010, the third municipality nation-wide to do so.

In July 2011, the International Organization for Standardization (ISO) released ISO 50001, a specification created for "for establishing, implementing, maintaining and improving an energy management system, whose purpose is to enable an organization to follow a systematic approach in achieving continual improvement of energy performance, including energy efficiency, energy security, energy use and consumption."¹¹

As the CVRD moves forward with its plans for GHG Emissions reduction it is imperative that the organization works through such a framework in order to deliver continual progress on its commitments to carbon neutrality. This plan provides actions that will begin to create this necessary structure for energy management.

¹¹ http://www.iso.org/iso/iso_catalogue/catalogue_tc/catalogue_detail.htm?csnumber=51297

5 Foundations of a Strategic Energy Management Plan

5.1 Energy and GHG Emissions Policy Statement

This GHG reduction plan suggests a number of actions for the CVRD to pursue based on the best available information at this time. There will always be new ideas and opportunities that present themselves in the future, to better address our energy use and resulting emissions. As such, it is important to capture the key principles of the plan and use them to guide and evaluate those future initiatives.

Policy Statement:

The CVRD will conduct its operations with continual attention paid to reducing energy use and associated greenhouse gas (GHG) emissions, as it strives to lead by example in moving towards a resilient community.

This will be achieved by:

- Explicitly defining energy efficiency and GHG emission considerations in capital spending and operational activities;
- Building strong business cases to demonstrate that GHG reduction, energy savings and operational improvements are cost effective;
- Instilling a culture of energy conservation in its organization and staff; and
- Reporting to its community the activities it is pursuing and the benefits achieved.

5.2 Action Plan Areas

This reduction plan recommends a range of initiatives and actions in four areas of the CVRD's operations: Building/Facility Operations, Fleet Operations, Infrastructure, and Corporate Leadership. The suggested corporate actions fall within the following categories depending on how they impact consumption and emissions:

(i) **Direct** – actions by which the CVRD identifies and implements specific activities which will conserve energy in their operation. These include building audits and retrofits, vehicle downsizing, etc. and often have an immediate cost associated with them.

(ii) **Strategic/Policy** – initiatives whereby the CVRD outlines key principles and activities for guiding actions. These initiatives may not achieve immediate impacts, but through board and staff endorsement they guide future activities. These policies can better inform future decision making and instill energy conservation within the corporate structure.

(iii) **'Lead by Example'** - Behavioral actions which improve the culture of conservation, waste reduction and sustainability. These measures are broader than exclusively energy management or GHG emissions and while some of these actions may have smaller emissions savings they have a substantial demonstration value. Leading by example may reduce emissions amongst staff or in the community that aren't formally included in the CVRD's corporate inventory.

5.3 Action Plan Summary

Initiative One - Corporate Leadership

- Corporate Action 1 Establish an energy conservation policy that defines specific long term goals/timelines, medium term objectives and measurable annual targets.
- Corporate Action 2 Require each CVRD Division to develop an emission reduction plan for their operational activities to assist the CVRD in meeting its commitments.
- Corporate Action 3 Create a formal incentive program where an executive sponsor recognizes employees for direct participation in the energy conservation program.
- Corporate Action 4 Create a Climate Action Reserve Fund to support Energy Efficiency projects.
- Corporate Action 5 Direct Environmental Policy Division staff to undertake detailed analysis of certified offset providers.
- Corporate Action 6 Incorporate life cycle costing into operational decision making.
- Corporate Action 7 Encourage green procurement.
- Corporate Action 8 Incorporate emissions tracking requirements into agreements with CVRD contracted services.
- Corporate Action 9 Direct Environmental Policy Division staff to pursue Milestones Two and Three of the PCP framework.

Initiative Two: Building Operations and Construction

- Corporate Action 10 Commit to building the most energy efficient and environmentally friendly facilities using a certified standard.
- Corporate Action 11 Require an evaluation of alternative energy sources for new construction and major renovations.
- Corporate Action 12 Require commissioning on all new construction and major renovations.
- Corporate Action 13 Require monitoring, targeting and reporting procedures on all major CVRD buildings.
- Corporate Action 14 Eliminate #2 heating oil as a fuel source for heating in CVRD facilities.

Initiative Three: Fleet Operations

- Corporate Action 15 Develop a CVRD vehicle purchasing policy.
- Corporate Action 16 Implement an efficient vehicle use initiative.

Initiative Four: Infrastructure

- Corporate Action 17 Conduct energy efficiency focused operational reviews of infrastructure annually.
- Corporate Action 18 Evaluate energy recovery opportunities and carbon offset potential for facilities, and waste management programs.

5.4 Initiative One: Corporate Leadership

The CVRD will assume a leadership role in developing policies that contribute to the reduction of energy and GHG emissions in its current and future building and fleet operations. It will also lead by example and develop awareness among the community. Initiatives pursued as part of this plan should be highlighted in public documents such as Annual Reports and through existing CVRD communication strategies such as the website, newsletters and press releases.

Corporate Action I: Establish an energy conservation policy that defines specific long term goals/timelines, medium term objectives and measureable annual targets

Action Type: *Policy*

This will establish the necessary infrastructure to integrate the energy management /emissions reduction program into the overall operating systems for the CVRD. Quantified goals and timelines are of critical importance for framing the vision of this initiative to the whole organization.

The lack of quantitative goals and timelines makes it difficult to understand what will be considered success with regards to energy conservation, measure progress towards successful completion, allocate resources accordingly to obtain the desired result, and keep stakeholders motivated as they have no milestones against which to determine progress.

Therefore, any effective energy policy statement must include quantitative goals and timelines that clarify expectations and will enable the CVRD to establish concrete plans for projects, initiatives, and the resources required for delivery.

Corporate Action 2: Require each CVRD Division to develop an emission reduction plan for their operational activities to assist the CVRD in meeting its commitments

Action Type: *Policy*

As part of the energy management program, this will allow each department to directly engage in the GHG emission reduction plan by better tracking the energy use and GHG emissions resulting from day to day operations, decision-making, and capital purchases. As many departments are making positive choices concerning energy, this will be a tool to account for the various improvements made and track their effectiveness after implementation.

Corporate Action 3: Create a formal incentive program where an executive sponsor recognizes employees for direct participation in the energy conservation program.

Action Type: *Policy*

In order to further the GHG reduction initiative, the CVRD should consider a formal incentive program where employees are recognized by an executive sponsor for direct participation in the energy conservation program as a way of adding additional motivation to energy efficiency.

Staff are at the core of the organization and on the front lines with dealing with energy systems. They often have unique and innovative ideas that can only be born out of day-to-day interaction with their processes.

An incentive program can successfully use positive motivation as a way to increase employee engagement, drive innovation, maintain a culture across divisions, and open communication between employees and senior management.

Corporate Action 4: Create a Climate Action Reserve fund to support energy efficiency projects

Action Type: *Policy Direct*

The CVRD will explore opportunities to create a dedicated fund for energy management and GHG reduction activities.

Within a regional district, the clearly delineated functions and related funding can create disadvantages for incorporating longer term and broader reaching energy efficiency projects. This is an issue that has been a consideration from all levels of the organization.

Currently, CARIP grant money is set aside each year in the general funds with expenditure handled by the Environmental Policy Division. This is an excellent start to the program and a dedicated fund with additional resources would strengthen this initiative.

There are several models for funding available and careful consideration should be given so as to provide an independent financial means for moving this initiative forward. It is possible to combine these models as appropriate.

One model is to create a "revolving" fund that collects the savings from energy efficiency projects to provide a dedicated funding source for future energy management initiatives. Combining energy savings across departments into a single fund would provide a larger pool of resources that can fund future

initiatives. It also provides the opportunity for the CVRD to assess which initiatives will provide the greatest GHG emissions reductions from a holistic point of view.

Because there has been an addition to the Carbon Neutral requirements allowing local governments to apply for "Working towards Carbon Neutral", no carbon offsetting is required for those years. It would be prudent to recognize the GHG emissions offset required at the current rate of \$25/tonne and set that money aside in a reserve fund. In 2011 the required offsets would have been \$49,270.

Corporate Action 5: Direct Environmental Policy Division staff to undertake a detailed analysis of certified offset providers

Action Type: *Policy Lead by Example*

There are currently 3 levels of offsets eligible to meet the carbon neutral mandate as outlined in the Balancing and Offsetting section of this document. These are unique investment opportunities that balance or offset corporate emissions by investing in community projects outside of the CVRD's corporate boundaries. In addition there is development of a local Cowichan Valley carbon market currently underway.

It will be important for the CVRD staff and board to be aware of the options for purchasing offsets and to create policies around balancing and offsetting GHG emissions in the future.

Corporate Action 6: Incorporate life cycle costing into operational decision making

Action Type: *Policy Lead by Example*

To ensure the full cost of a product or project is considered, include Life Cycle Cost (LCC) in purchasing and other operational decision making procedures. LCC refers to the total cost of ownership over the life of an asset. LCC is being adopted across many sectors as it is a more accurate way of judging the cost and benefit of a decision.

It is recognized that the CVRD has already informally incorporated this approach into its activities. Examples include the purchase of Ford Escape hybrids, and lighting upgrades at the Island Savings Centre. In these purchases, a higher up front capital cost was justified on the basis of long term operational savings.

A formalized policy in this area will allow for the development of tools that consider the life cycle cost in a formalized and systematic manner, allowing a consistent approach across all departments.

Corporate Action 7: Encourage Green Procurement

Action Type: *Policy Lead by Example*

The CVRD will encourage purchasing energy efficient products. This may require the development of a green purchasing policy that includes criteria for energy conservation and GHG reduction. A green purchasing policy considers the life cycle cost of each product, and gives preference to environmentally superior products where quality, function, and cost are equivalent.

A green procurement policy can include a range of criteria, such as:

- Guidelines for selecting appropriate vehicles ('rightsizing');
- Guidelines for fuel selection;

- Preference for products with specific environmental labeling /rating (Energy Star, Environmental Choice, EcoLogo);
- Requiring a certain recycled content in paper purchases; and
- Local food for board and committee meetings.

Corporate Action 8: Incorporate emissions tracking requirements into agreements with CVRD service providers

Action Type: *Policy*

To enable staff to capture and monitor the emissions associated with private delivery of CVRD services (e.g. waste hauling, parks maintenance etc); the CVRD will include emission tracking requirements in all contracts with private sector service providers renewed after January 1, 2013.

Corporate Action 9: Direct Environmental Policy Division staff to pursue Milestones Two and Three of the PCP framework

Action Type: *Direct*

Milestone Two of the PCP framework involves setting GHG emission reduction targets for both corporate operations and community. CVRD corporate reduction targets will be developed through internal processes but the community reduction target will require the input from citizens, community stakeholders, non-governmental organizations and the private sector. Targets may also need to be revised with the development of Milestone Three.

Milestone Three involves developing a local action plan (LAP) that outlines how the district will achieve its GHG reduction target. Links must also be established between the LAP and the official community plans. There generally is two documents, one for the CVRDs corporate operations and a second for the community as a whole. The community wide LAP will be more complex to develop and implement, again requiring many stakeholder inputs.

Recognizing the complexity of these two milestones, the FCM's Green Municipal Fund provides grants of up to 50 percent of costs to a maximum of \$350,000 toward the completion of these next steps.

5.5 Initiative Two: Building Operations and Construction

The CVRD stationary assets are primarily comprised of recreation facilities, community halls, fire departments, and administrative offices. These buildings are the largest energy users and GHG emitters for the CVRD. Most of the existing infrastructure was built decades ago in times where building design and engineering had different priorities.

Over time, building use and occupancy has also changed as the needs and priorities of the community have changed. With aging mechanical systems, equipment upgrades are ongoing commitments. As these requirements arise, they can be seen as opportunities to review building use, energy requirements and opportunities to reduce energy consumption. By proactively monitoring and reviewing building energy use, long-term strategies can develop to meet energy demands in the most efficient manner.

New construction and major rehabilitation projects provide building owners with an opportunity to make use of new technologies and materials that can result in more efficient building systems, reduced operational costs, and lower GHG emissions.

Planning work is underway for a new community center in South Cowichan, a waste transfer site, and ongoing development of utilities building. In addition a number of significant renovation projects are in the planning stages, including a major retrofit of the Kerry Park recreation facility. The development of this Plan provides the CVRD with an opportunity to develop a policy to guide these and all future projects.

Corporate Action 10: Commit to building the most energy efficient facilities using a certified standard

Action Type: *Policy / Lead by Example*

Given that more than 80% of the total cost associated with a facility occurs post-construction, business case development for new projects should include a demonstration of the life cycle cost benefits into its decision making regarding major renovation and construction projects.

To support this commitment, the CVRD can choose to utilize third party rating and certification systems (such as LEED for green buildings, ASHRAE 90.1/Energy Star for energy efficiency, EnerGuide for equipment ratings).

Corporate Action 11: Require an evaluation of alternative energy sources for new construction and major renovations

Action Type: *Policy Lead by Example*

The CVRD will:

“Include within all new construction, major equipment replacement, and major renovations, an evaluation of the opportunities to utilize alternative energy sources.”

New construction, the replacement of equipment (at the end of its service use), and major renovations are key opportunities to incorporate alternative energy systems at the lowest possible cost. This is particularly important in large facilities that will inherently require energy, and where the CVRD supports the increased use of facilities to achieve other important benefits (ie. the use of recreation facilities). This action can include a focus on alternative energy systems such as:

- Solar hot water
- Heat recovery from refrigeration and other waste heat sources (e.g. ice chillers)
- Geo-Exchange – using ground source heat pumps to drive heating or cooling systems
- District energy opportunities

This would include a technical and financial evaluation of potential alternative energy sources for space and hot water heating. The assessment should account for both the capital and operational costs over an extended period (life cycle costing) as alternative energy systems may require higher upfront capital costs, but reduce operating costs (including fuel costs) over the lifetime of the building.

Corporate Action 12: Require commissioning on all new construction and major renovations

Action Type: *Direct*

The CVRD will:

“Require commissioning reports on all major renovations, equipment replacements and new construction.”

Commissioning is the process of verifying that all subsystems of HVAC, plumbing, electrical, fire/life safety, building envelopes, lighting, controls and other mechanical systems achieve the owner's project requirements as intended and designed by the building architects and engineers.

Commissioning ensures building quality using peer review and in-field or on-site verification. Commissioning also accomplishes higher energy efficiency, environmental health, and occupant safety and improves indoor air quality by making sure the building components are working correctly and that the plans are implemented with the greatest efficiency. Commissioning is a quality assurance-based process that delivers preventive and predictive maintenance plans, tailored operating manuals and training procedures for all users to follow.

Corporate Action 13: Require energy monitoring, targeting and reporting on all major energy using CVRD buildings

Action Type: *Direct*

The CVRD will:

“Require all major CVRD facilities to have energy monitoring systems in place to be used for targeting energy efficiency measures.”

Monitoring and targeting (M&T) energy use is a critical component of an effective energy management program. M&T techniques provide the CVRD with feedback on operating practices, results of energy management projects and guidance on the level of energy use that is expected in a certain period. It is a useful tool to track and control energy use and can lead to significant energy savings.

For example, The Cowichan Lake Recreation Centre has recently undergone a major renovation with numerous energy efficient upgrades. M&T can help to answer questions such as: *“How successful was the renovation and are the systems performing as expected?, should these practices be carried to the other facilities?”* Without the tools to collect and analyze these buildings there is no way of quantifying energy reductions.

Many of the buildings in the CVRD have had significant energy efficiency upgrades performed in the last 5 years and there are many more upgrades to consider in the future. A formalized approach to monitoring, targeting and reporting on building upgrades will assist the CVRD in controlling energy use and reducing GHG emissions.

Most of the larger CVRD buildings already have Direct Digital Controls (DDC) installed that could be used to extract data to a monitoring system.

Corporate Action 14: Eliminate #2 heating oil as a fuel source for heating in CVRD facilities

Action Type: *Direct Lead by Example*

The CVRD will:

"Replace all heating oil systems with low emission, high efficiency alternatives by 2015."

The use of #2 heating oil is an outdated and highly polluting method for heating buildings. The burning of oil produces 67kg of CO₂e for every gigajoule of energy provided. Simple retrofit options are available to replace these heating systems with high efficiency electric heat pumps. Buildings using heating oil in the CVRD are mainly fire department halls and community halls.

The elimination of heating oil from the CVRD buildings will reduce its GHG emissions footprint by almost 200 tonnes of CO₂e with only a small increase in electrical energy GHG emissions.

This can be an important initiative to lead by example as heating with fuel oil in the Cowichan Valley has a major impact on its community GHG emissions profile. From the 2010 Community Energy and Emission Inventory (CEEI), residential heating oil consumption represents 28% of total building emissions in the CVRD.

5.6 Initiative Three: Fleet Operations

The CVRD currently has a fleet of over 70 vehicles, including passenger cars and trucks, as well as specialty vehicles such as fire trucks, tractors, dump trucks and ice resurfacing machines.

A common barrier to reducing fleet fuel consumption is the travel distances required for staff and the range or service functions that may be required from a single vehicle. However, CVRD staff has already deployed Ford Escape hybrid SUVs – indicating that fuel efficiency and performance requirements can both be achieved.

Fleet consumption is driven by two factors, the types of vehicles driven and the manner in which they are driven. Two actions are defined to target these factors.

Corporate Action 15: Develop a CVRD Vehicle Purchasing Policy

Action Type: *Policy Direct*

In this action the CVRD will **formalize** a vehicle purchasing policy to ensure that vehicles purchased are evaluated based on:

- Anticipated usage of vehicles (e.g. engine size, vehicle weight, average load capacity, average passenger capacity, average operational terrain); and
- Life cycle considerations (e.g. residual costs / values of vehicle being replaced, capital costs, maintenance costs, fuel costs, resale values).

The objective is to ensure that all vehicles are the most energy efficient, while still meeting the required activity requirements. The CVRD may choose to adopt this policy as part of a larger green procurement policy (Action 7).

As an example, the CVRD has purchased hybrid Ford Escapes, which have up to 50% better gas mileage than non-hybrid versions. The incremental purchase cost has been justified by the long term savings in fuel costs.

Corporate Action 16: Implement an efficient vehicle use initiative

Action Type: *Direct*

The CVRD will:

“Implement a program of staff education to reduce fleet fuel consumption.”

It is estimated that up to 10% fuel savings are readily possible through regular maintenance and fuel efficient driving behavior. This will include a corporate anti-idling policy.

Specific activities include:

- Routine checks of vehicle systems (e.g. tire pressure, engine tuning)
- Driver training
- Anti-idling policy
- Accelerated retirement of inefficient vehicles
- Reducing travel needs through teleconferencing and other potential IT solutions

Programs such as the E3 fleet (a fleet certification system developed by the Fraser Basin Council) and FleetSmart (a Natural Resources Canada toolkit) provide excellent resources for actions to implement. However at present it is not likely that the CVRD fleet is large enough to justify pursuing certification through E3, and it may be an action to take in the future.

5.7 Initiative Four: Infrastructure

Infrastructure currently represents the largest portion of CVRD functions and also the most energy using accounts. These accounts are mainly electrical, therefore having a lower GHG emission footprint. However, this does not preclude the need for energy management as there are many opportunities to reduce energy use, increase reliability, create best practices and reduce the cost of providing these services.

Additionally, infrastructure often lends itself to opportunities for generating or harnessing energy. These unique opportunities are worth considering as they can often provide significant long-term savings and excellent examples for community awareness and education.

Corporate Action 17: Conduct energy efficiency focused operational reviews of infrastructure

Action Type: *Direct*

The CVRD currently operates infrastructure, and occasionally acquires new services. These facilities are reviewed (on a periodic, or as needed basis) to define maintenance requirements for financial planning purposes. In particular, newly acquired services may have engineering and technical reviews conducted.

Energy efficiency reviews should be conducted on both the macro and micro level, examining systems as a whole as well as reviewing individual components for efficiency. On a macro level, reviewing system use and strategically planning schedules can reduce energy use.

On the micro level, it is well known in the industry that the initial equipment cost is on average only 9% of the life cycle cost of the component. The majority of the cost is in maintenance and energy expenditure. Periodic reviewing of infrastructure systems can identify components that can be made more efficient.

As with buildings, monitoring and targeting of systems provides the necessary feedback of upgrades and help to identify best practices. This is beneficial in a division where there are a significant number of operations each with unique circumstances.

This action commits the CVRD to include within these reviews an assessment of the energy conservation potential and resulting GHG emissions reductions.

Corporate Action 18: Evaluate energy recovery opportunities and carbon offset potential for facilities and waste management programs

Action Type: *Policy Lead by Example*

This action commits the CVRD to evaluate energy capture and recovery opportunities within the planning for new and existing services. This may include sewage waste heat recovery, biogas generation, and innovative energy recovery systems within the plants as well as potential electricity generation from water systems.

While some of these opportunities have potentially high initial capital cost, the life cycle cost of these implementations can prove them viable for the long term development of the regional district. The ability to demonstrate alternative energy processes will also provide unique educational and community engagement opportunities.

6 Next Steps for Implementation

6.1 Summary of Implementation Activities

A number of activities are being executed by CVRD staff to implement this plan. These include:

Activity 1: Complete Top Level Energy Assessments of all Corporate Assets

Activity 2: Propose a Strategic Energy Policy for Review and Approval

Activity 3: Continue to Refine Corporate GHG emission data

Activity 4: Develop an Accurate Tool for Tracking Fleet Emissions

Activity 5: Report on Progress

6.2 Implementation Actions

Activity 1: Complete Top Level Energy Assessments of all Corporate Assets

The first steps in an energy management plan is to first identify all the energy consuming assets, and develop a broad understanding of the systems, their functional use, the current management strategies and potentials for energy efficiency.

The CVRD energy analyst will complete the exploratory site audits of the CVRD corporate asset inventory and identify the greatest energy users and largest GHG emissions. In addition, a work scope will be developed for key areas where further energy audit and analysis is required.

This exploratory work will serve as the basis for defining potential opportunities for GHG emissions reductions and provide the body of evidence for achievable energy reduction targets.

Activity 2: Propose a Strategic Energy Policy for Review and Approval

Through the work in Implementation Activity 1, the CVRD Environmental Policy division will develop a formal energy policy that will be put forward to the board for approval. This policy will define specific long term goals/timelines, medium term objectives and measureable annual targets.

This proposal will be completed by December, 2012.

Activity 3: Continue to Refine Corporate GHG Emission Data

The CVRD Environmental Policy Division will continue to work with the Finance Department and the Provincial SMARTTool team to develop the GHG emissions tracking and monitoring system. Staff will continue to review the data for tracking GHG emissions and work with the Finance Department to ensure accuracy of emissions and correct allocation of energy use to divisions.

Activity 4: Develop an Accurate Tool for Tracking Fleet Emissions

Staff are working with the SMARTTool team to incorporate detailed information about fleet emissions. Tracking fuel consumption, emissions, and mileage are required to obtain the necessary information to make informed decisions for vehicle purchases and developing fleet policies.

A prototype version of the system will be available at the end of 2012, with testing and further refinements occurring in 2013.

Activity 5: Report on Progress

The tracking of energy consumption and GHG emissions data from fuel and utility bills is accomplished through the CVRD's finance department records. This data is valuable for departmental energy-related decision making and should be provided to facility managers and operators to enable better energy management.

The energy analyst will work to identify suitable reporting intervals for division managers, facility coordinators, and infrastructure operators. Energy consumption data is useful as a feedback tool in identifying components of operations that are not operating as expected as well as developing best practices. Further development of more sophisticated monitoring and reporting systems may be required for high energy use facilities.

Staff will work to develop methodology for reporting to various levels of the organization with standardized reporting at appropriate intervals, empowering divisions with the information necessary to understand their energy consumption and GHG emissions profile.

Staff will also provide an annual emissions management report to the senior management and the Board, including a review of all utility accounts to identify areas of concern, comparisons of current energy use to records from previous years, and documentation of energy reduction initiatives completed each year.

Appendix A – Life Cycle Costing and Triple Bottom Accounting

Life Cycle Cost Analysis (LCCA)

Life-cycle cost analysis (LCCA) is an economic method of project evaluation in which all costs arising from owning, operating, maintaining, and disposing of a project are considered important to the decision. LCCA is well suited to the economic evaluation of design alternatives that satisfy a required performance level but may have differing investment, operating, maintenance, or repair costs, and possibly different life spans. It is particularly relevant to the evaluation of investments where high initial costs are traded for reduced future cost obligations.

The LCC method takes into account first costs, including capital investment costs, purchase, and installation costs; future costs, including energy costs, operating costs, maintenance costs, capital replacement costs, financing costs; and any resale, salvage, or disposal cost, over the life-time of the project, product, or measure.

LCC method is being adopted broadly around the world by both private and public organizations. Of particular note is the broad adoption by the US Federal Government in 2005.

Section 401 of Executive Order 13123 requires that “Agencies shall use life-cycle cost analysis in making decisions about investments in products, services, construction, and other projects to lower the Federal Government’s costs and to reduce energy and water consumption...”¹²

Triple Bottom Accounting

The TBL is an accounting framework that incorporates three dimensions of performance: social, environmental and financial. This differs from traditional reporting frameworks as it includes ecological (or environmental) and social measures that can be difficult to assign appropriate means of measurement.

From the BC Climate Action Toolkit Website¹³:

Many organizations, including local governments and businesses, that are successfully reducing their emissions are increasingly using a “triple bottom line” approach that captures the diversity of social, economic and environmental costs and benefits. Using a triple bottom line is particularly appropriate in light of the world’s most comprehensive review of climate change economics commissioned by the UK Government. “Climate change is the greatest market failure the world has seen” according to Sir Nicholas Stern, author and former World Bank Chief Economist [2].

Indeed, the cost of fossil fuel combustion on the atmosphere has not been integrated into the price of the coal, oil and gas we consume. Our communities are now paying for this with ecosystem impacts like the pine beetle infestation that has devastated \$43 billion worth of lumber in BC, and more frequent and intense weather episodes such as floods, droughts and windstorms [3].

¹² http://www1.eere.energy.gov/femp/pdfs/lcc_guide_05.pdf

¹³ <http://www.toolkit.bc.ca/business-case-climate-action>

This triple bottom line business case is based on six elements. Because taking action involves doing things differently, transcending every one of these elements is **LEADERSHIP**.

The six elements of triple bottom line accounting are:

Leadership Advantage - by driving innovation in their own operations, local governments can strengthen employee performance and morale, building capacity that extends to the broader community, and prepare residents and local professionals who construct and use the built environment.

Economic Performance - energy efficiency improvements are investments beyond their initial expenditures. Investing in energy efficiency in local government operations can improve economic performance over the life of the equipment and systems it serves.

Asset Management - whether infrastructure is viewed through the economic or environmental scope, the result is an integrated sustainability vision. Asset management includes maintaining and increasing equipment efficiency and reducing leaks with sophisticated approaches now extracting energy from these streams.

Defense against Climate Change - deep emission reductions today and adaption minimizes exposure and risk to current and future climate change. Local governments are on the front line dealing with clean-ups, restoration, and increasingly more costly and complicated climate change issues.

Economic and Social Development - complete, compact communities and sustainable energy are central to economic development across BC. These developments promote active lifestyles, improve human health, and strengthen community.

Resilience - with such great global economic, social, and environmental uncertainty on the horizon, developing adaptive capacity for communities is central to the resilience of its social and ecological systems.

Appendix B – GHG Emissions Measurement

The following information is based on the report “Methodology for Reporting 2011 B.C. Local Government Greenhouse Gas Emissions (V2.), February 2012.”¹⁴

To simplify measurement and reporting, GHG emissions are normalized and reported as metric tonnes of carbon dioxide equivalents (tonnes of CO₂e). CO₂e represents the sum of individual GHGs weighted to represent the atmospheric effects of CO₂ – the most abundant greenhouse gas. Table 1 displays the global warming potential of the GHGs being tracked by the B.C. public sector.

Table 1: Global Warming Potentials

Greenhouse Gas	Chemical Formula	100-Year Global Warming Potential
Carbon dioxide	CO ₂	1
Methane	CH ₄	21
Nitrous Oxide	N ₂ O	310

Emissions from energy consumption are calculated using emission factors, which specify the amount of CO₂e produced per energy unit. The emission factor is then multiplied by the total energy consumed to determine the amount of CO₂e produced. Table 2 shows the emissions factors for energy used by the CVRD in stationary and mobile sources.

Table 2: Emissions Factors used for CVRD GHG Inventory

Source	Emission Factor CO ₂ e (kg/GJ)
Electricity (BC Hydro)	6.9
Natural Gas	50.16
Propane	61.01
Light Fuel Oil - #2 heating oil	67.68
Diesel Fuel	70.05
Marine Diesel Fuel	75.73
Gasoline	64.18

The emissions factors are of great importance when considering fuel shifting and developing strategic plans for reducing GHG emissions. Of particular note is the emission factor of hydroelectric based power systems from BC Hydro compared to the other available fossil fuel sources.

¹⁴

http://www.env.gov.bc.ca/cas/mitigation/pdfs/Methodology_for_Reporting_BC_Public_Sector_GHG_Emissions.pdf

Appendix C – CVRD GHG Inventory: Departmental Data

The following information is extracted from SMARTTool and has not been reviewed for accuracy at this time.

Figure 3 - Administration and Governance 2007-2011

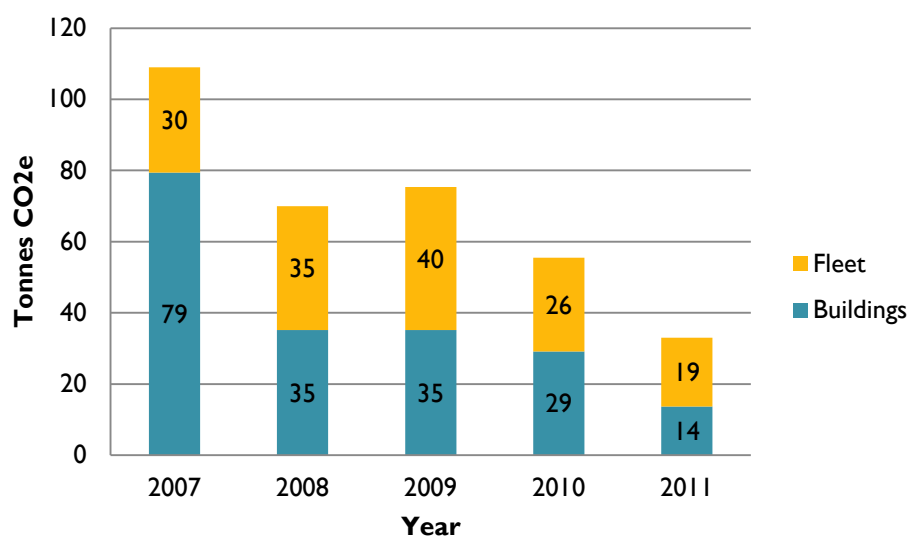
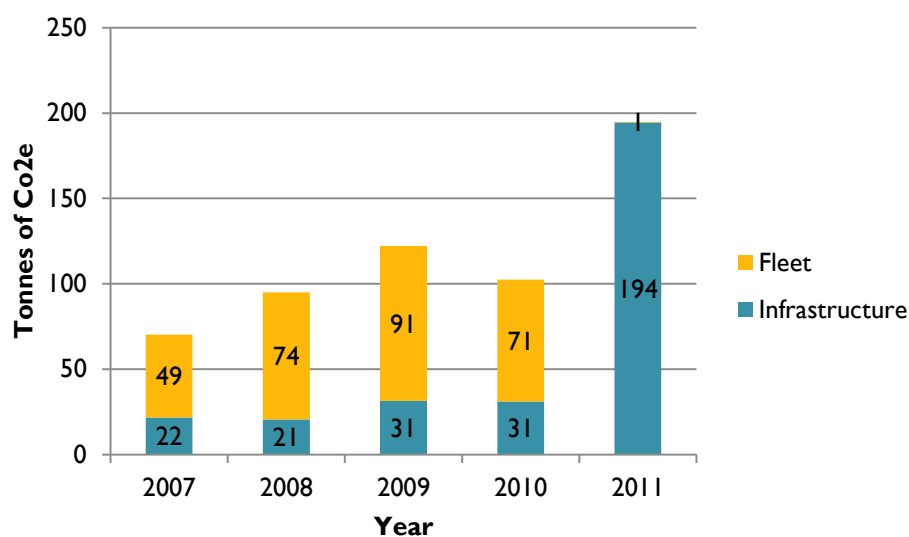


Figure 4 - Drinking, Storm and Waste Water 2007-2011¹⁵



¹⁵ Data needs verification for this department

Figure 5 - Parks, Recreation and Culture 2007-2011

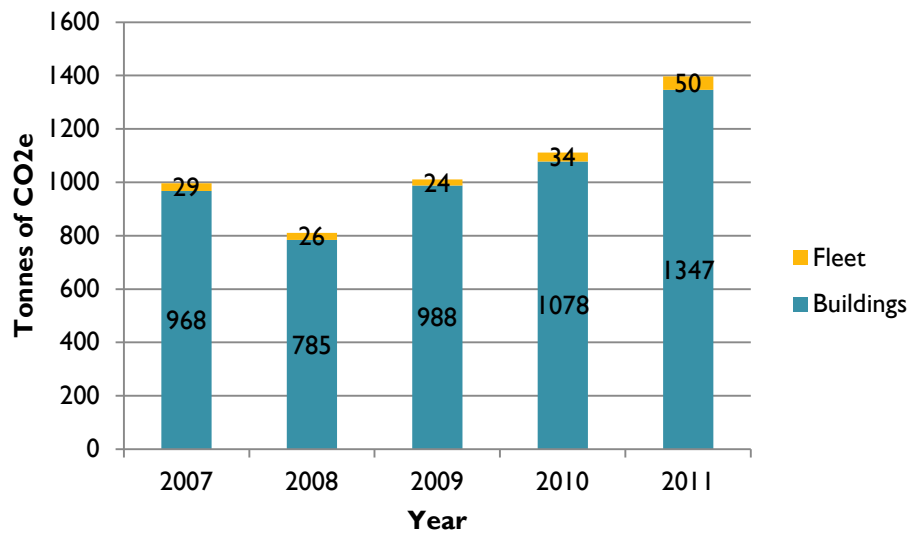


Figure 6 - Public Safety 2007-2011

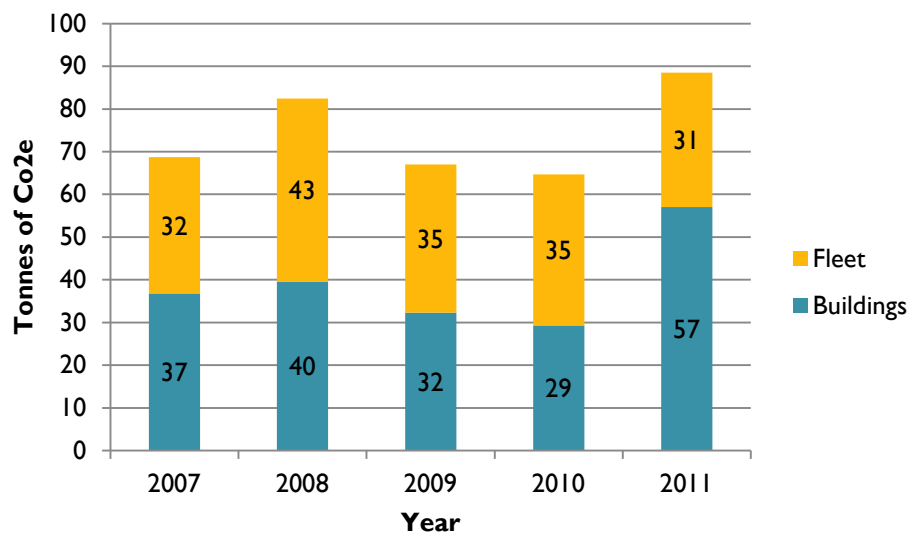


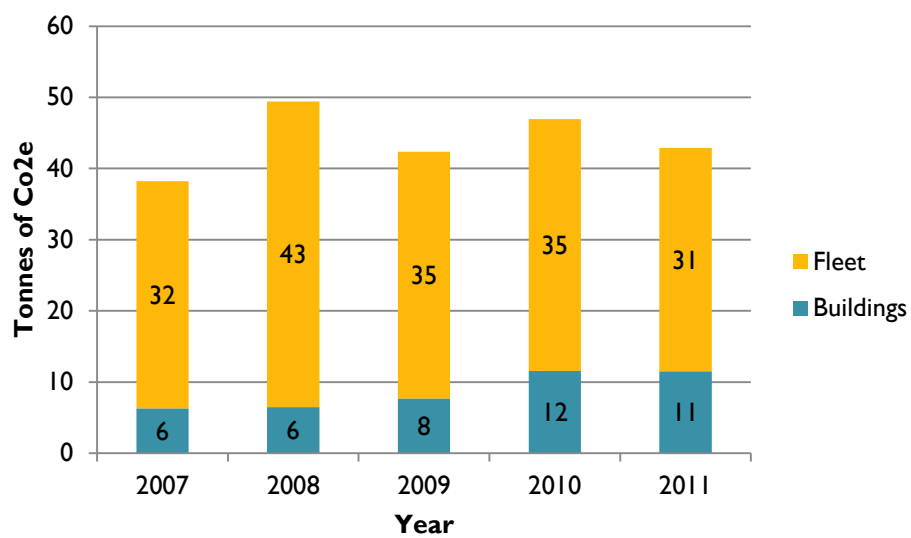
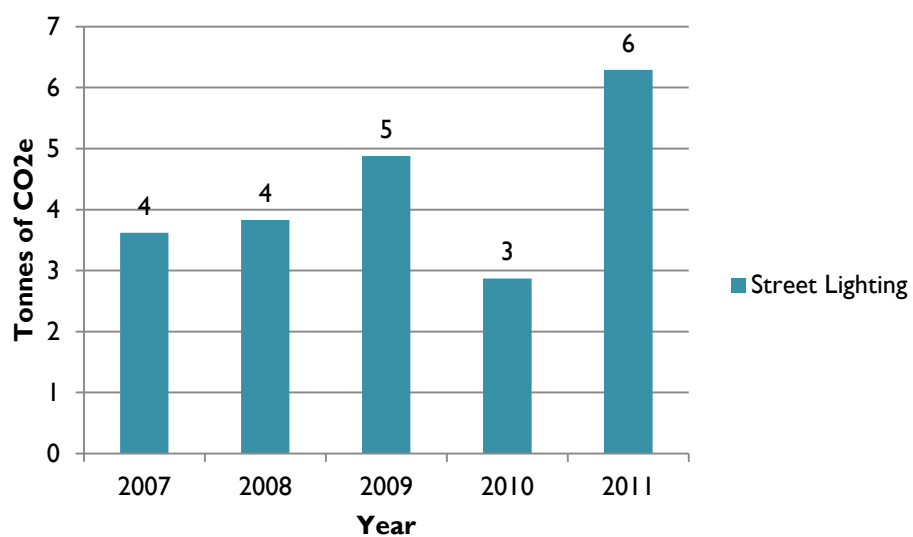
Figure 7 - Recycling and Waste Management 2007-2011¹⁶

Figure 8 - Street Lighting 2007-2011



¹⁶ Does not currently include contracted services

Appendix D – PCP 5 Milestone Framework

These are extracts from the Five Milestone Framework Overview¹⁷:

Milestone One – Create a GHG emissions inventory and forecast

What is a GHG emissions inventory and forecast?

A GHG emissions inventory is a collection of data that quantifies the amount of energy consumed and solid waste generated by your community and municipal operations. The community inventory records data from the institutional, commercial, industrial (ICI), transportation, and residential waste sectors. The corporate inventory records data from your municipal government facilities and operations, including buildings, street lighting, water and wastewater treatment, the municipal fleet, and corporate solid waste.

Why develop an inventory?

You can use your inventory as a management tool to:

Save money. The inventory helps you track dollars spent on energy and can reveal opportunities for investment in energy efficiency improvements — what can be measured can be managed.

Get a reference point. Selecting a baseline year, and completing an emissions inventory for that year, is essential for tracking reductions in GHG emissions.

Take action. Identifying significant sources of GHG emissions is the first step toward developing an effective local action plan (Milestone Three) and implementing appropriate emissions reduction measures (Milestone Four).

Participate in carbon trading. A verifiable GHG emissions inventory will help you to participate in the voluntary carbon trading market, and may be required in a regulated market.

Milestone Two – Set an Emissions Reduction Target

What is an emissions reduction target?

An emissions reduction target is the quantity of emissions your municipal government aims to reduce through various emissions reduction measures outlined in a local action plan. It is usually expressed as a percentage reduction below the quantity of emissions released in the baseline year.

Why set a target?

The emissions reduction target is the basis of your municipality's program objectives and provides a goal against which to track progress. Some communities have been able to adopt aggressive targets. For instance, the City of Calgary has adopted a target to reduce corporate emissions by 50 per cent below 1990 levels by 2012.

What is a good reduction target to strive for?

PCP recommends the following targets:

¹⁷

- A **20 per cent reduction** in GHG emissions below baseline levels for **municipal operations** within 10 years.
- A **six per cent reduction** in GHG emissions below baseline levels for the **community** within 10 years.

You may revise the targets as you develop your local action plan (Milestone Three). Select a base year or which the most complete and reliable data are available.

Milestone Three – Develop a location action plan

What is a local action plan?

A local action plan (LAP) is a strategic document that outlines how your municipality will achieve its GHG emissions reduction target. Links must also be established between the LAP and the municipal government's official plan and other planning documents.

Many communities develop two separate LAPs — one for municipal operations and one for the community as a whole. Although the reduction potential from the community is significantly greater than that from municipal operations, PCP encourages municipal governments to develop and implement a plan for municipal operations first. By going first, your municipality can demonstrate leadership and provide a positive example for the community to follow. Also, the experience gained in making the smaller municipal LAP can then be applied to the community-wide LAP, which is typically more complex to develop and implement, requiring input and coordination from many stakeholders, such as citizens' groups, non-governmental organizations and the private sector.

Milestone Four – Implement the local action plan or a set of activities

Who implements the local action plan?

While municipal staff are responsible for putting the plan in motion and maintaining momentum, non-governmental organizations and private-sector contractors can contribute to the implementation of specific projects. The approval and support of council, municipal staff, stakeholders and the community are essential to the plan's success.

What funding is available to implement the plan?

You have several options for financing the implementation of your local action plan. You can use internal funds, obtain third-party financing through performance contracting and borrowing, and apply for grants and loans for environmental initiatives. For example, FCM's Green Municipal Fund offers grants and loans for leading studies and projects (see www.fcm.ca/gmf).

Milestone Five - Monitor progress and report results

Why monitor progress?

Monitoring the results of the actions planned for in Milestone Three and implemented in Milestone Four helps you to determine:

- whether reduction measures are producing the anticipated results; and
- whether your emissions reduction target will be met.

If your actions are not producing the anticipated results or your target will not be met, the data collected can provide you with the information you need to evaluate and adjust your activities.

Realizing your goals

Reaching Milestone Five is a significant achievement, but it does not signal the end of your community's emissions reduction efforts. A local action plan is a living document that is revised as information, ideas and circumstances evolve.

Appendix E – Including Contracted Emissions

The following is an extract from the GCC guide “Becoming Carbon Neutral – Guidance on Including Contracted Emissions in Local Government Corporate Inventories, April 2012”¹⁸:

What Contracts are Included?

When reporting on contracted emissions they must include contracts that are:

- new or renewals after June 1, 2012; AND
- over \$25,000 in value in any calendar year; AND
- “in scope” based on the traditional services boundaries described in the Workbook EXCEPT FOR administration and governance services.

These are “included contracts”. Note: once a contract has been established as part of the corporate inventory it should be included every year, for the entire term of the contract.

What Needs to be Tracked and Reported?

For included contracts, local governments are only required to track and report on contracted emissions that are derived from fossil fuel consumption used to operate vehicles, equipment and machinery. These included (but are not limited to) gasoline, diesel, natural gas, propane, and bio-fossil fuel blends.

¹⁸ http://www.toolkit.bc.ca/sites/default/files/CNLG_Contracted%20Emissions_April%202012%20_FINAL.pdf



NEW BUSINESS SUMMARY

Engineering & Environmental Services Committee Meeting OCTOBER 24, 2012

- NB1** Staff Report from the General Manager, Engineering & Environmental Services
Re: On-site Sewer System Maintenance
- NB2** Information Item
CVRD Curbside Collection FAQs



NB1

STAFF REPORT

ENGINEERING & ENVIRONMENTAL SERVICES COMMITTEE MEETING OF OCTOBER 24, 2012

DATE: October 23, 2012 **FILE No:** 5345-20-SSLWMP/AMEND2012

FROM: Brian Dennison, General Manager, Engineering & Environmental Services

SUBJECT: On-site Sewer System Maintenance

Recommendation/Action:

That options for the creation of an on-site sewer system maintenance function be investigated as part of the South Sector Liquid Waste Management Plan amendment process.

Relation to the Corporate Strategic Plan:

Financial Impact:

All costs for pump outs and management of the system would be recovered by the tax requisition or parcel tax for the function.

Background

This item has been brought forward to the Committee at the request of Director Giles. The existing South Sector Liquid Waste Management Plan (SSLWMP) includes an initiative for the imposition of a pump-out service for the South Cowichan area. When the plan was completed in 1998, it was determined by CVRD administration that the Local Government Act of the day did not support this initiative. However, legislation has changed and other local governments, such as the Capital Regional District, have implemented bylaws to regulate on-site systems, including pump-out.

During recent public consultation regarding the South Cowichan Water Plan, in particular with the water purveyors, significant concern was expressed concerning the functioning of on-site systems. There is some interest in the CVRD pursuing a type of management bylaw that would require regular pump-outs of septic systems, and perhaps further inspections of septic and package treatment systems, to ensure proper functioning. There is a wide variety of possible approaches to such a bylaw and further investigation is therefore required.

To establish such a function, assent of the electorate would be necessary. This could be obtained directly through an AAP process, referendum or through the liquid waste planning process. As \$100,000 in Gas Tax funding has already been set aside to amend the SSLWMP, this would be the most practical approach.

Submitted by,



Brian Dennison, General Manager,
Engineering & Environmental Services



CVRD Curbside Collection

FAQs

Updated: 23 October 2012

1. *NEW - Why is the CVRD using the AAP instead of a referendum?*

Referendums are expensive, costing up to \$50,000 for a region-wide vote (on an issue that is intended to save money). The Alternative Approval Process is a more cost-effective way for the CVRD to obtain electorate approval for borrowing up to \$1,775,000 to purchase trucks and totes for the proposed curbside program. The CVRD undertook an extensive public outreach campaign prior to the AAP to ensure that residents were aware of and informed about the proposal. The outreach campaign included six regional open houses, an extensive advertising campaign in print and radio media, a mail-drop to 12,000 residences in all Electoral Areas, and staff presentations to community groups and members of the public.

2. *NEW - The CVRD is proposing to borrow \$1,775,000 over 15 years. Is that fair to the private sector? Will the trucks even last that long?*

As a local government, the CVRD is able to access long-term, low-rate financing through the Municipal Finance Authority. This allows the capital purchase of three new curbside trucks and 17,500 totes to be amortized over a longer period than would normally be found in the private sector. In this case, the proposed borrowing will amortize the capital purchases over a fifteen year period. In the private sector, most capital costs tend to be amortized over the length of a standard contract, usually between five and seven years, resulting in higher annual costs as they try to pay off the capital over that term. It is difficult for private industry to compete with this situation, but results in a direct benefit to customers.

The CVRD is confident that the trucks and totes will last throughout the amortization period. In fact, equipment used at the start of the CVRD contract in 1999 is still in use today, and the totes are often guaranteed for 15 years. The CVRD is purchasing three curbside trucks, with one truck dedicated mainly as back-up. This truck will be cycled through the routes with the other trucks, essentially reducing the wear-and-tear on all trucks by up to one-third. Trucks are also only scheduled to run 4 days each week. A healthy maintenance budget has also been built into the proposed program throughout the amortization period. In addition, the proposed curbside budget allows annual transfers to a reserve fund. These funds can be used to purchase new capital equipment or to pay down debt early. It is projected that new replacement equipment could even be purchased with the 15 year amortization period if need be.

3. *Why are you moving this in-house when there are private sector contractors that could do this work?*

The CVRD wants to improve service, increase recycling, and keep user fees as low as possible. We have had numerous contracts with private hauling companies since 1999 to serve the 12,000+ homes in the CVRD Electoral Areas, and after extensive research have concluded an in-house model is the best long-term solution. The draft plan allows for investment in a modern fleet with automated collection arms and totes for all area residents, which can be paid back over a longer term than standard contracts. This ensures the user the lowest user fees each year, and ensures stable future rates.

The new curbside program is a strong investment and responsible use of taxpayers' money to lower operating costs and standardize service delivery. This move is in line with many other communities throughout BC who are modernizing and automating their curbside collection service to take advantage of the operating-efficiencies of this new model. North Cowichan currently has a strong in-house collection model.

The region is a small, fractured marketplace, which has made it difficult for new contractors to compete. It is difficult for new contractors to bid on single contracts without bidding on all curbside contracts in the region. As such, no member municipalities have changed their contractors since 1999. In this uncompetitive marketplace, bringing curbside collection in-house is a prudent move by the CVRD and will result in real cost savings over the long-term.

4. *Aren't you hurting the private sector and business economy by bringing this in-house?*

We're spending similar amounts of money to deliver the service as the private sector would, however, we are doing so in the most cost-efficient manner possible to save taxpayers' money. As well, contracts do come and go in the private sector, so no contractor is guaranteed endless work. This service is only to collect materials, which is a primary role of the CVRD, especially with its waste management facilities. All materials collected by the CVRD through curbside – or numerous other programs – are sent to private facilities for processing and marketing.

In fact, the CVRD is a provincial leader in waste diversion/recycling because of the numerous collection programs that have been established. Some 35 items are now accepted for recycling, including a new program to collect 'aggregates' such as window glass, porcelain toilets, tubs, dishes, bricks, blocks, concrete, etc. as part of a new recycling stream soon to be launched as a part of the CVRD's Zero Waste program. The CVRD is proud to be developing and supporting the local multi-million dollar recycling industry now employing dozens of people, and will continue to look for ways to partner with local businesses to further improve recycling services in the region.

5. *How is it possible for the CVRD to borrow \$1.775M and have the costs be lower for residents? Will you just jack up the prices or taxes in later years?*

As a Regional District, the CVRD is able to borrow funds over 10-15 years for capital projects such as borrowing the \$1.775M to purchase equipment for the curbside recycling program.

Standard curbside contracts are 5 – 7 years, with contracts trying to recover their equipment costs within that period. With a longer loan period and smaller repayments, the CVRD is able to offer lower annual program costs for taxpayers.

Automated collection is a slightly higher investment, but also a highly efficient method of providing curbside collection, which can result in lower operational costs. User fees have been designed to go down in the short-term, and increase minimally and predictably (1-3% annually) over the long-term. It is expected the new service will initially lower costs by \$1-11 dollars per home and enable stable future rates.

6. *What is next? If you're taking this in-house, should the other private contractors be worried that you'll put them out of business?*

This is a rare situation. The CVRD is not intending to bring all of its programs in-house, but it would be irresponsible not to save taxpayers money and deliver a better service when there is an opportunity to do so. The CVRD decided to move the curbside program in-house

due to an opportunity to save residents money, streamline program administration, provide better service delivery and stabilize fees. The CVRD is focused on working with residents to make the curbside program a success and help the region meet its goal of Zero Waste.

7. *How many jobs will the new automated system take away?*

Automated collection will still require trained employees to drive the trucks and oversee operations. CVRD staff expect to employ two new staff for operations of the new curbside program. Current staff assigned to managing the contracts, invoices, contractor complaints, etc. will be reassigned to administering the in-house system. The CVRD Zero Waste programs will continue to support new employment opportunities within the recycling sector, which has a job creation ratio of 12 to 1 when materials go towards recycling versus disposal.

8. *This feels like the CVRD is “empire-building” and pushing the small businesses out of town. How can you justify this?*

The CVRD is trusted to make efficient and effective decisions with taxpayers’ money. Moving the curbside program in-house is a responsible and efficient means to deliver the curbside recycling for the region. We recognised the previous system resulted in varying service delivery and multiple contracts across the region—ultimately not serving residents well as it made it more costly to operate. We have taken steps to streamline and modernize the program because it will mean lower cost to residents and a better service with greater recycling and spin-off jobs.

9. *Why aren’t all Electoral Areas participating in this program if ‘standardized service delivery’ is a goal?*

All areas are participating – nothing changes in that regard. Standardized Service Delivery is not a goal of the CVRD. Each electoral area (director) has chosen its own preferred level of service. Moving the system in-house will allow the program a high degree of flexibility to quickly address potential future requests for additional services by an electoral area (director) e.g. organics collection.

The proposed changes to the CVRD curbside collection services would not affect locally owned contracting companies that operate in these areas, such as PAN Disposal, as no new levels of service are planned in any electoral area.

10. *Why is the CVRD using an AAP to introduce this program? Why wasn’t it included in the 2012/2013 budget or last election?*

This fall, the CVRD is seeking Electoral Consent through an Alternative Approval Process (AAP) for the financing model to borrow up to a maximum of \$1,775,000 to fund the purchase of three fully automated curbside collection trucks and wheeled totes.

The CVRD has been reviewing its curbside recycling operations over the last 4 years. A proposal was put forward earlier this year, but was not approved in time to be included in the last election or current budget. However, CVRD staff identified the opportunity complete our contract obligations at the end of June 2013 and launch the program in-house. As a result of this timing, where the CVRD did not absorb contract penalty fees, staff recommended moving forward with the curbside program. Regardless of the timing of the budget, an AAP would have been necessary to borrow that amount of money long-term. It is worth noting the private sector would have needed to borrow that same amount of money, but at higher interest rates and paid back over a shorter period – resulting in higher user-fees.

11. What if the AAP process fails? Will you still proceed?

The AAP is not about providing a curbside service or not – it is strictly about the financing of a new type of service. If the AAP process fails, the curbside program could be put to a public referendum. However, the CVRD would most likely not pursue a referendum, as it is a costly process and the proposed curbside program is about a cost decrease for residents. The CVRD believes the most efficient use of taxpayers' money is to support the curbside recycling AAP process, which will result in streamlined, consistent service and stable user fees.

12. Where can I send my comments and questions?

Residents are welcome to fill out a comment form online on the Zero Waste website (www.zerowaste.ca/curbside) or call the Recycling & Waste Management Division at (250) 746-2530. Information about the Alternative Approval Process is also available online.