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ENGINEERING & ENVIRONMENTAL SERVICES COMMITTEE

WEDNESDAY, FEBRUARY 23, 2011
3:30 P.M.
CVRD Boardroom, 175 Ingram Street

AGENDA

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2.	**ADOPTION OF MINUTES:**		
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3.	**BUSINESS ARISING FROM THE MINUTES:**		
4.	**DELEGATIONS:** No delegations		
5.	**CORRESPONDENCE** – No correspondence		
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	R1	2011 Engineering & Environmental Services Budget – please bring budget books.	
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8.	**NEW BUSINESS:**		
	Carried forward from Committee meeting of January 26, 2011		
	NB1	Curbside Collection – snow days (Director, Electoral Area D)	Verbal
	NB2	Construction Sites (Director, Electoral Area D)	Verbal

9. CLOSED SESSION

Motion that the meeting be closed to the public in accordance with the Community Charter Part 4, Division 3, Section 90, subsection as noted in accordance with each agenda item.

SNB1	Labour / Employee Relations – Sub {(1) (c)} – carried forward from meeting of January 26, 2011 under New Business (Director, City of Duncan).	Verbal

10. ADJOURNMENT

The next meeting of the Engineering & Environmental Services Committee will be held March 23, 2011.

Distribution:
Director Cossey, Chair
Director Kuhn, Vice-Chair
Director Dorey
Director Duncan
Director Giles
Director Harrison
Director Haywood
Director Iannidinardo
Director Kent
Director Marcotte
Director Morrison

As Well As:
Warren Jones, CAO
Brian Dennison, General Manager, Engineering & Environmental Services
Bob McDonald, Manager, Recycling & Waste Diversion
Dave Leitch, AScT., Manager, Water Management
Kate Miller, Manager, Regional Environmental Policy
Mark Kueber, Manager, Corporate Services

Agenda Cover Only:
Directors Hutchins, McGonigle, Seymour, Walker
Tom Anderson, General Manager, Planning & Development
Joe Barry, Corporate Secretary

The Full Agenda Package is available on-line at: http://cvrd.bc.ca/Archive.asp?AMID=50

Minutes of the regular meeting of the Engineering & Environmental Services Committee held in the CVRD Boardroom, 175 Ingram Street, Duncan, on January 26, 2011 at 3:30 p.m.

PRESENT: Director Kuhn, Chair
Directors Dorey, Duncan, Giles, Haywood, Iannidinardo, Kent, Marcotte, Morrison

ABSENT: Directors Cossey and Harrison

ALSO PRESENT: Warren Jones, CAO, CVRD
B. Dennison, P. Eng., General Manager, E & E
D. Leitch, AScT., Manager, Water Management
B. McDonald, Manager, Recycling & Waste Management
K. Miller, Manager, Regional Environmental Policy
J. Bath, Recording Secretary

APPROVAL OF AGENDA

The following items were added under New Business

NB1 District Energy Study
NB2 Curbside Collection – snow days
NB3 Construction Sites
SNB1 Labour Relations / Employee Relations {(Sub (1) (c)}

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

MOTION CARRIED

ADOPTION OF MINUTES

It was moved and seconded that the minutes of the November 24, 2010 regular Engineering & Environmental Services Committee meeting be adopted.

MOTION CARRIED

BUSINESS ARISING OUT OF MINUTES

1. Plastic Bag Reduction
The General Manager, Engineering & Environmental Services, advised that a letter, brochure and cloth bags were hand delivered to 100 businesses in July 2009. These businesses were also asked if they would run the video produced by Bench Elementary School students. As well, cloth bags were handed out that year at the Cowichan Valley Folk Festival.

2. Cowichan Bay Heights – Exchange of JUB Units
Director Kent asked if the transfer of units financial agreement was being drafted for the Board's review? Staff advised that it is being developed by the CVRD's Development Services Department and would be going to the Board in the near future.

3. Central Sector Liquid Waste Management Plan (CSLWMP)
Director Kent inquired about the status of the Delcan report. Mr. Dennison advised that there is still work to be done, but he will provide Director Kent with an update.

DELEGATIONS

No delegations

REPORTS

R1

The Manager, Water Management Division presented a staff report regarding an amendment to CVRD Bylaw no. 3382 – Douglas Hill Water System Service Establishment Bylaw, 2010, to exclude one property.

It was moved and seconded that it be recommended to the Board that "CVRD Bylaw No. 3382 – Douglas Hill Water System Service Establishment Bylaw, 2010", be amended to exclude *"PID 001-624-784, Part of Section 2, Range 5, Cowichan District, Except part of Plans 24340 & 24750 and 16041"*, and that the amendment bylaw be forwarded to the CVRD Board for three readings and adoption.

MOTION CARRIED

R2

The Manager, Water Management Division, presented a staff report requesting capital expenditures prior to adoption of the 2011 budget.

It was moved and seconded:

1. **That the Board authorize short-term borrowing of $26,000.00 to buy-out the lease on the Water Management Division's 2008 Ford 4x4 F-350 truck, to be paid back within 5-years under the Liabilities Agreement, Section 175 of the Community Charter, and further that the Board waive the CVRD Purchasing Policy and approve this expenditure prior to approval of the 2011 budget.**

2. **That the Board waive the CVRD Purchasing Policy and, prior to approval of the 2011 budget, authorize purchase of three generator sets and electrical components for the Arbutus Ridge Sewer System, in the amount of $80,00.00.**

3. **That the Board waive the CVRD Purchasing Policy and, prior to approval of the 2011 budget, authorize undertaking capital works for the Douglas Hill Water System in the amount of $20,000.**

MOTION CARRIED

R3

The Manager, Recycling and Waste Management, presented a staff report requesting an extension to the Local Garbage Transfer contract.

It was moved and seconded that the Cowichan Valley Regional District extend Contract ES-011-05 for Local Garbage Transfer with Active Industrial Waste Management Ltd. for the period of January 1, 2011 to April 30, 2012; and that the Chair and Corporate Secretary be authorized to sign the extension agreement.

MOTION CARRIED

R4

The Manager, Recycling and Waste Management, presented a staff report regarding options to ensure local composting is better managed.

It was moved and seconded that staff pursue the following activities to improve composting in the CVRD:

1. **Recommend amendments to the Provincial Organic Matter Recycling Regulation.**
2. **Amend "CVRD Bylaw No. 2570 – Waste Stream Management Licensing Bylaw, 2004" to allow more prescriptive terms and conditions.**
3. **Amend "CVRD Bylaw No. 3209 - Ticket Information Authorization Bylaw, 2008", to allow greater enforcement options.**
4. **Review adoption of a bylaw similar to the Capital Regional District's composting bylaw.**
5. **Investigate the possibility of developing a CVRD regional compost facility.**
6. **Work with Municipal partners on zoning bylaws to restrict composting operations.**

MOTION CARRIED

R5

The Manager, Water Management Division, presented a staff report regarding an amendment to the Toilet Replacement Rebate Program.

Staff were asked to notify suppliers of this revision, specifying that the program only extends to CVRD operated sewer and/or water systems...

It was moved and seconded that the CVRD Toilet Replacement Rebate Program be amended to offer rebates for 4 8 litre per flush or "Dual Flush" toilets – 6/3 litres per flush or less, for homes connected to a CVRD water or sewer system.

MOTION CARRIED

R6

The Manager, Water Management Division, presented CVRD Bylaw 3459 - Douglas Hill Water System Management Amendment Bylaw, 2011, which revises Schedule H – Flat Rate Charge.

It was moved and seconded that it be recommended that "CVRD Bylaw No. 3459 – Douglas Hill Water System Management Amendment Bylaw, 2011" be forwarded to the Board for three readings and adoption.

MOTION CARRIED

R7

The Manager, Regional Environmental Policy, provided an update on the Federal Infrastructure proposal for flood works.

FOR INFORMATION

NEW BUSINESS

NB1

The Manager, Water Management Division presented a staff report regarding a District Energy Study for Cowichan Bay Heights.

It was moved and seconded that this motion be deferred until the next meeting of the Engineering & Environmental Services Committee meeting.

MOTION CARRIED

It was moved and seconded that Items NB2, NB3 and SNB1 be deferred to the next meeting.

MOTION CARRIED

ADJOURNMENT

It was moved and seconded that the meeting be adjourned.

MOTION CARRIED

The meeting adjourned at 5:46 p.m.

_____
Chair

_____
Recording Secretary

Dated: _____

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R2

STAFF REPORT

ENGINEERING & ENVIRONMENTAL SERVICES COMMITTEE MEETING OF FEBRUARY 23, 2011

DATE: February 2, 2011 **FILE NO:** 5225-03-SCD

FROM: David Leitch, AScT., Manager, Water Management Division

SUBJECT: Establishment of Service Area for Shawnigan Creek Cleanout

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Recommendation/Action:
That it be recommended that an Alternative Approval Process be carried out to obtain consent of the voters to create a function and service area inclusive of the Shawnigan Lake North Water System, the Shawnigan Village Water System and the Shawnigan Lake waterfront properties in Electoral Area B, for the purposes of cleaning out Shawnigan Creek, allowing drainage and the restoration of the natural system; and further that an establishment bylaw be created for this service area.

Relation to the Corporate Strategic Plan:
Proposal relates to Healthy Environment aspect of the Corporate Strategic Plan, by restoration, rehabilitation and enhancement of the natural environment.

Financial Impact: *(Reviewed by Finance Division:)*
The annual cost of providing the service is to be recovered through property value taxes to be requisitioned and collected on the basis of the net taxable value of land and improvements within the three areas identified as the Shawnigan Lake waterfront properties, the Shawnigan Lake North Water System and the Shawnigan Village Water System within Electoral Area B. The maximum amount of money that will be requisitioned annually in support of this service will be $18,000.00. There are approximately 1700 properties within the proposed service area which would be sharing the annual cost based on assessment.

Background:
In 1964, Mill Bay Waterworks built a dam on Shawnigan Creek approximately 450 metres downstream of the lake with the intention to store water that would be released in the summer months. A weir replaced this dam in 2008, and three water license holders, Shawnigan Lake North Water System (SLNWS), Lidstech Holdings and Mill Bay Waterworks, now maintain responsibility of the weir. As water drains from Shawnigan Lake to Shawnigan Creek, vegetation, sediment and debris accumulate at its mouth, prior to the weir structure, increasing the potential of flooding of the lakefront properties. The public have expressed concern that a significant flood in 1979 was caused from the build-up of sediment and debris at the outlet. Historically, this clean-out function was undertaken by the Ministry of Environment; however, they no longer have the resources to continue this work.

... /2

If flooding occurs, the lakefront properties septic fields are subject to flooding which could deteriorate the surface water quality. Within the existing water license, the Ministry of Environment can mandate terms and conditions for the water license holders to perform this cleanout function. The proposed service area would include the Shawnigan Lake North Water System, the Shawnigan Village Water System and all the Shawnigan Lake waterfront properties. In 2010 a similar AAP process failed to establish a function in which the service area would have included only the Shawnigan Lake waterfront properties.

At the request of the Electoral Area B Director and the Shawnigan Residents Association, staff are now proposing creation of a new service area function for the clean-out of the creek bottom at the mouth of Shawnigan Creek that will continue to allow for drainage and the restoration of the natural system.

Submitted by,

Dave Leitch, AScT., Manager,
Water Management Division

DL:jlb

Bath\Z:\ESMemos2011\Shawnigan Creek Function Feb 23-2011.docx

Reviewed by:
Division Manager:
Not required

Approved by:
General Manager:

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R3

STAFF REPORT

ENGINEERING & ENVIRONMENTAL SERVICES COMMITTEE MEETING OF FEBRUARY 23, 2011

DATE: February 4, 2011 **FILE NO:** 1855-20-DES

FROM: Dave Leitch, AScT., Manager, Water Management Division

SUBJECT: District Energy Project – Cowichan Bay Heights

Recommendation/Action: The Committee's direction is requested.

Relation to the Corporate Strategic Plan: Protect the environment from harm.

Financial Impact: *(Reviewed by Finance Division: SEN)*
There is an uncommitted balance of $19,000.00 in the Electoral Area Feasibility Study Function for 2011. To fund the District Energy study solely from this function, an increase of the requisition from $15,000.00 to $36,000.00 would be required. Alternatively if there was no increase to the Electoral Area Feasibility Study Function requisition for 2011, then a contribution of approximately 50% would be required from the Cowichan Bay Heights developer.

Background:
The undeveloped land at Cowichan Bay Heights is located on the west side of Wilmot Road, between Wessex Road and Wilmot Road. In 2010, an application was brought forward to develop this property into a 126 lot subdivision, but because there are no sewer units available in Area D, a report was brought to the June 15, 2010 EASC that, subject to a number of conditions, would enable the transfer of units from Electoral Area E and the District of North Cowichan to Electoral Area D and, as a result, provide adequate sewer capacity units for the Cowichan Bay Heights project.

One of staff's comments in the report regarding the development of this property, was that the owner of Cowichan Bay Heights would explore the viability of a District Energy System, likely using a geo-exchange system, to provide an independent heating and cooling system for the homes in the subdivision.

Although it is not one of the conditions of the agreement, it has long been the desire of the CVRD to have a District Energy System as a function within the Valley, but because of a lack of other functioning systems to compare to, the availability of study information and the uncertainty of its financial viability, the CVRD has not been able to persuade a developer to proceed with a study. As a result, if there is no contribution from local government, it may be some time before a District Energy Study is completed within the CVRD.

.../2

Options:

1. That the Board authorize staff to proceed with a District Energy Study for the Cowichan Bay Heights development and that the study be funded to a maximum amount of $40,000.00 to be paid from the Electoral Area Feasibility Fund, with an increase to the 2011 requisition from $15,000.00 to $36,000.00.

or

2. That the Board authorize staff to proceed with a District Energy Study for the Cowichan Bay Heights development and that the study be funded to a maximum amount of $40,000.00 to be paid through equal contributions from the Electoral Area Feasibility Fund and the Cowichan Bay Heights Developer.

Submitted by,

Dave Leitch, AScT., Manager,
Water Management Division

DL:jlb

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Reviewed by:
Division Manager:

Approved by:
General Manager:

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R4

STAFF REPORT

ENGINEERING & ENVIRONMENTAL SERVICES COMMITTEE MEETING OF FEBRUARY 23, 2011

DATE: February 2, 2011 **FILE NO:** Bylaws

FROM: Louise Knodel-Joy, Senior Engineering Technologist

SUBJECT: Twin Cedars Sewer System Management Amendment Bylaw

Recommendation/Action:
That it be recommended that "CVRD Bylaw No. 3464 – Twin Cedars Sewer System Management Amendment Bylaw, 2011" be forwarded to the Board for three readings and adoption.

Relation to the Corporate Strategic Plan:
Promotes reliable essential services under sustainable infrastructure priorities, by upgrading water and sewer utilities to meet local government standards.

Financial Impact: *(Reviewed by Finance Division:)*
The attached amendment to Schedule B, sewer service charges is required to include other classifications due to expansion of the service area.

Background:
General housekeeping amendments are required, and Schedule B – Sewer Service Charges must be revised to include classifications in addition to "*Single Family Dwelling*".

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. 3464

A Bylaw to Amend the Twin Cedars Sewer System Management Bylaw No. 2947

WHEREAS the Board of the Cowichan Valley Regional District established the management of the *Twin Cedars Sewer System* pursuant to CVRD Bylaw No. 2947, cited as "CVRD Bylaw No. 2947 – Twin Cedars Sewer System Management Bylaw, 2007";

AND WHEREAS the Board of the Cowichan Valley Regional District deems it desirable to update the language of the bylaw, revise Schedule B and add Schedule F 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. 3464 - Twin Cedars Sewer System Management Amendment Bylaw, 2011"**.

2. **AMENDMENT**

   a) That where the words "Engineering Services" appear within the bylaw, they be deleted and replaced with "*Engineering & Environmental Services*".

   b) That where the word "Manager " appears within the bylaw, it be deleted and replaced with "*General Manager* ".

   c) That the definitions for "**Prohibited Waste**" and **"Restricted Waste"** be deleted in their entirety and replaced with the following definitions:

      "Prohibited Waste" means ***Prohibited Waste*** in Article A of Schedule F of this bylaw.

      "Restricted Waste" means ***Restricted Waste*** in Article B of Schedule F of this bylaw.

   d) That where the words "Condominium Act" appear within the bylaw, they be deleted and replaced with "*Strata Property Act*".

   e) That where the words "condominium corporation" appear within the bylaw, they be deleted and replaced with "strata corporation".

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f) That **"Section 4 – Sewer Surcharge Rates, Sewer Rates and Sewer Charges"** be deleted in its entirety and replaced with the following:

4. SEWER RATES AND SEWER CHARGES

1. (a) Revenues for the ***Twin Cedars Sewer System*** may be raised by ***Sewer Rates, Sewer Charges*** and ***Parcel Taxes.***

(b) If in any fiscal year the revenues generated by the rates and charges set out in sub-section (a) do not meet the expenditures of the ***Twin Cedars Sewer System Service Area***, the deficit may be covered by a duly authorized increase in any or all of the charges set out in sub-section (a) for the succeeding fiscal year.

(c) All revenue raised by the methods herein described or ***Authorized*** shall be applied to the ***Twin Cedars Sewer System***.

2. (a) ***Consumers*** of ***Sewer Service(s)*** who receive ***Metered District Water*** shall be charged the rates set out in Schedule A.

(b) ***Consumers*** of ***Sewer Service(s)*** who do not receive ***Metered District Water*** shall pay the ***Sewer Charges*** set out in Schedule B.

(c) Person(s) desiring the extension of the ***Twin Cedars Sewer System*** to lands which they own, or occupy, shall make formal application and pay the appropriate charges as set out in Schedule E and comply with Parts 5 and 6 of this Bylaw.

(d) Person(s) requiring the miscellaneous services set out in Part 7 of this Bylaw shall pay the charges therefore set out in Schedule D.

3. (a) The ***Sewer Rates*** and ***Sewer Charges*** set out in Schedules A, B, C, D, E, and F shall be subject to periodic review by the ***Manager,*** who may make recommendations on the revision of the said Schedules to the ***Regional Board.***

(b) Schedules A, B, C, D, E, and F may be revised by Bylaws enacted by the ***Regional Board.***

g) That the reference in Section 5.2 (a) of "5(f)" be deleted and replaced with "5.1 (f)".

h) That Section 5.2 (b) be deleted in its entirety and replaced with the following:

i) "When a new ***Sewer Service Connection*** is installed, the ***Sewer Rate*** levied shall be pro-rated in accordance with appropriate charges set out in the appropriate Schedule. Commencement of charges shall be determined by the ***Treasurer***".

.../3

j) That all references to **"Sewer Surcharge Rates"** be deleted from the bylaw.

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

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

m) That Schedule F, as attached, form part of Bylaw No. 2947.

READ A FIRST TIME this	_____	day of	_____ , 2011.
READ A SECOND TIME this	_____	day of	_____ , 2011.
READ A THIRD TIME this	_____	day of	_____ , 2011.
ADOPTED this	_____	day of	_____ , 2011.

_____ _____

Chairperson Secretary

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SCHEDULE A

TO BYLAW NO. 2947

SEWER SURCHARGE RATES (METERED WATER CONSUMPTION)

This Schedule is intended for metered water consumption. Sewer surcharge rates are calculated on a basis of water consumed, which is not applicable in this Bylaw.

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SCHEDULE B

TO CVRD BYLAW NO. 2947

SEWER SERVICE CHARGES

(a) ***Consumers*** of ***Sewer Services*** who do not receive ***Metered District Water***, shall pay the minimum billing set out in sub-section (c) below.

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

Classification	Charge	10% Discount	Discounted Amount
Single Family Dwelling – Per Dwelling	$ 148.50	$ 14.85	$ 133.65
STEP System – Per dwelling	126.22	12.62	113.60
Apartment – Per Unit	126.22	12.62	113.60
Mobile Home Park – Per Unit	148.50	14.85	133.65
RV Trailer Park/Campground:			
a) Site Connected to Sewer: Per serviced pad or site	74.26	7.43	66.82
b) Site not Connected to Sewer: Per pad or site	14.85	1.49	13.36
Hotel/Motel:			
a) Room or Suite: - Per room or suite	59.40	5.94	53.46
b) Kitchenette or Housekeeping Unit (per room or suite)	89.10	8.91	80.19
Restaurants - Per seat:	8.91	0.89	8.02
Licensed Premises - per seat:	14.85	1.49	13.36
Laundromat:			
Minimum charge for each washing machine:	148.50	14.85	133.65
Commercial:			
Minimum charge for the first 5 employees or portion thereof per shift	74.26	7.43	66.82
Each additional 5 employees or portion thereof per shift	74.26	7.43	66.82
School - Minimum charge for school	148.50	14.85	133.65

Classification	Charge	10% Discount	Discounted Amount
Continuing Care Facility:			
Minimum charge for each bed	111.38	11.14	100.24
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 guestroom			
a) Single Family Dwelling:	148.50	14.85	133.65
b) Per guest room	59.40	5.94	53.46
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 o septic tank pump –outs (typically a maximum of every 5-yers).

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

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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.

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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 Igal.) per day metered for calculated flow, rounded to the higher whole number.

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SCHEDULE F

TO CVRD BYLAW NO. 2947

SOURCE CONTROL

1. DISCHARGES TO SEWERS

.1 No person shall directly or indirectly ***Discharge*** or allow or cause to be ***Discharged*** into a ***Sewer*** connected to a ***Sewage Facility*** operated by the ***District,*** any waste which, at the point of discharge, contains:

(a) Any ***Prohibited Waste***, as described in Article "A".

(b) Any ***Restricted Waste***, at a concentration in excess of the limits set out in Article "B"; unless that person has first obtained a ***Waste Discharge Permit*** or ***Authorization***.

(c) Any ***High Volume Discharge*** unless that person has first obtained a ***Waste Discharge Permit*** or ***Authorization***; or

(d) Any ***Uncontaminated Water*** in a volume greater than 2.0 cubic metres per day without prior ***Authorization*** from the ***Manager***.

(e) Any ***Stormwater*** without prior ***Authorization*** from the ***Manager***.

.2 No person shall directly or indirectly ***Discharge***, or allow or cause to be ***Discharged*** into a ***Sewer*** connected to a ***Sewage Facility*** operated by the ***District*** any water or other ***Substance***s for the purpose of diluting any ***Non-domestic Waste***.

.3 In order to obtain and maintain the ***Authorization*** referred to in paragraph 2.1(d), where the ***Uncontaminated Water*** is produced on property, other than ***Residential Property***, and is from a source other than a ***Waterworks***, a person shall:

(a) install and thereafter maintain, at that person's expense, a meter on the water supply generating the ***Authorized Discharge***; and

(b) supply to the ***Manager***, by the tenth (10th) of each month, an accurate calculation of the volume of water measured pursuant to paragraph 2.4(a).

.4 Every person who directly or indirectly ***Discharges Waste*** or ***Substances*** produced, treated, handled, or stored on property other than ***Residential Property*** into a ***Sewer*** connected to a ***Sewer Facility*** operated by the ***District*** shall, as a condition of that ***Discharge***:

.../2

(a) provide and maintain facilities to prevent accidental ***Discharge***, or a ***Discharge*** contrary to this Schedule for ***Substances*** which, if accidentally ***Discharged***, would constitute ***Prohibited*** or ***Restricted Waste***;

(b) post, and keep posted, permanent signs in conspicuous locations on the ***Premises*** displaying the name, telephone number of the person to call as prescribed in Article "C" in the event of accidental ***Discharge*** of a ***Prohibited*** or ***Restricted Waste***; and

(c) inform employees, who may cause or discover the ***Discharge*** of ***Prohibited*** or ***Restricted Waste***, of the notification procedures set out in Section 5 of this Schedule.

.5 ***Oil and Grease*** interceptors shall be installed for all food preparation facilities including restaurants, canning operations, killing and processing facilities, as close to the source of the ***Waste*** material as practical.

.6 Grease, oil and sand interceptors shall be installed for all vehicle repair and maintenance establishments and service stations, as close to the source of the ***Waste*** material as practical.

.7 Separate sand traps and ***Oil and Grease*** interceptors shall be installed for all establishments that provide vehicle or equipment washing facilities. Sand traps shall be located upstream from the ***Oil and Grease*** interceptors, and shall have a minimum liquid depth of 1 metre and a maximum overflow rate of 8 $L/m/m^2$ under peak flow conditions Sand and silt shall be removed from sand traps before these materials occupy 25 percent of the liquid depth. Accumulated ***Oil and Grease*** shall be skimmed off the surface of the interceptors and other sumps often enough to prevent these materials from escaping to the ***Sewer***.

.8 Interceptors are required for all industries or commercial establishments as necessary for the removal of grease, flammable wastes, sand, grit or other restricted substances.

.9 All interceptors shall be installed on the parcel, upstream of the ***Service Connection*** and shall be located as to be readily accessible for cleaning and inspection.

.10 All interceptors shall be maintained by the ***Owner*** or occupier in efficient operation at all times.

.11 Volume Restriction: ***Wastewater*** or other ***Water*** shall not be ***Discharged*** into the ***Sanitary Sewer*** system in a volume that causes the ***Sanitary Sewer*** System to back up or leak at any point.

.12 Special Control Manholes and Flow Meters: Any ***Owner*** or occupier of ***Premises*** that are the location of a facility that is discharging or likely to ***Discharge Wastewater*** to the ***Sanitary Sewer*** System in a volume that exceeds 90 m^3 per month shall install a control manhole and flow meter on the building ***Sewer*** at a location that is suitable for the inspection and sampling of the discharged waters.

.13 The rate or rates of ***Discharge*** for various times of a twenty-four hour period for any industry connected to the ***Sanitary Sewer*** system shall not exceed the extra capacity of the ***Sanitary Sewer*** system after all the other regular users have been accommodated. Such industries shall install and maintain on their own properties, such holding facilities, pumps, valves, flow regulating and measuring devices as may be required by the ***Manager*** to ensure that the specified flow rates shall not be exceeded.

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.14 The control manhole shall be installed and maintained at the expense of the ***Owner*** or occupier of the ***Premises*** and shall be accessible at all times to the ***District.***

.15 The control manhole shall have a barrel diameter of 1200-mm, and shall be located on a straight run of building sewer extending at least 3 metres upstream of the manhole and 2 metres downstream. The section of building sewer on which the manhole is located shall have a gradient not exceeding 2 percent.

.16 If the ***Manager*** deems necessary, a permanent flow meter (e.g. "Palmer Bowlus") shall be installed as an integral part of the control manhole, and shall be sized to suit the peak design flows.

2. WASTE DISCHARGE PERMITS AND AUTHORIZATIONS

.1 The ***Manager*** may issue a ***Waste Discharge Permit*** or ***Authorization*** to allow a ***High Volume Discharge***, or to allow the ***Discharge*** of ***Waste*** other than ***Domestic Sewage*** upon such terms and conditions as the ***Manager*** considers appropriate for the protection of ***Sewers***, sewage facilities, human or animal health and safety, and the environment, and without limiting the generality of the foregoing, may in the ***Waste Discharge Permit*** or ***Authorization***;

(a) place limits and restrictions on the quantity, frequency of ***Discharge***, and the nature of the ***Waste*** permitted to be discharged;

(b) require the holder of a ***Waste Discharge Permit*** or ***Authorization***, at his expense, to repair, alter, remove, or add works, or construct new works to ensure that the ***Discharge*** will comply with the ***Waste Discharge Permit*** or ***Authorization***, this Schedule, and any ***Enactment***;

(c) require the holder of a ***Waste Discharge Permit*** or ***Authorization***, at his expense, to monitor the ***Waste*** being discharged under the ***Waste Discharge Permit*** or ***Authorization*** in the manner specified by the ***Manager***, and to provide information concerning the ***Discharge*** as requested by the ***Manager*** including, but not limited to, routine maintenance check dates, cleaning and ***Waste*** removal dates, and the means of disposal of accumulated ***Waste***s and ***Waste*** treatment residuals;

(d) require the holder of the ***Waste Discharge Permit*** or ***Authorization*** to submit to the ***Manager*** detailed plans and operating procedures for all existing facilities installed on the ***Premises*** for the purpose of preventing accidental ***Discharge***;

(e) require compliance by the holder of the ***Waste Discharge Permit*** or ***Authorization*** with such other ***Enactments*** as the ***Manager*** considers necessary or desirable in the circumstances;

(f) make such other requirements as the ***Manager*** deems necessary or desirable.

.2 Notwithstanding paragraphs 2.1(b) and (c), the ***Manager*** may require any ***Applicant*** or person to obtain a ***Waste Discharge Permit*** or ***Authorization*** for the ***Discharge*** of any ***Non-domestic Waste*** that is not a ***High Volume Discharge*** or a ***Restricted Waste.***

.3 Upon receipt of notice under subsection 3.2, the ***Applicant*** or person receiving the notice shall, within 30 days, apply for a ***Waste Discharge Permit*** or ***Authorization*** and shall provide to the ***Manager*** such information relating to the ***Discharge*** of ***Non-domestic Waste*** by that person as the ***Manager*** may require.

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.4 The ***Manager*** may suspend or revoke a ***Waste Discharge Permit*** or ***Authorization*** for a failure to comply with the terms and conditions of the ***Waste Discharge Permit*** or ***Authorization***, or for any failure to comply with this Schedule, or any ***Enactment*** applicable to the ***Discharge*** of ***Waste*** into a ***Sanitary Sewer*** connected to a ***Sewage Facility*** operated by the ***District***.

.5 (a) A ***Waste Discharge Permit*** or ***Authorization*** may not be transferred or assigned without the ***Manager's*** consent in writing.

(b) The ***Manager*** may withhold consent where there has been a breach of this Schedule or a condition of the ***Waste Discharge Permit*** or ***Authorization***.

.6 An application for a ***Waste Discharge Permit*** for a new ***Discharge***, or an amendment to an existing ***Waste Discharge Permit***, shall be made to the ***Manager*** on the form attached hereto as Article "C", and shall be accompanied by such information, drawings, and specifications as may be required under Article "C".

3. MAINTENANCE OF WORKS AND PROCEDURES

.1 It is a condition of the ***Discharge*** of ***Waste*** (produced on property other than ***Residential Property***) into a ***Sanitary Sewer*** by a person who holds a ***Waste Discharge Permit*** or ***Authorization,*** or who otherwise discharges ***Waste***, that all measures be taken to keep all equipment and facilities maintained and in good repair as may be necessary to ensure compliance with the terms and conditions of this Schedule, a ***Waste Discharge Permit*** or ***Authorization***.

.2 No person shall Discharge or allow or cause to be discharged, into a ***Sewage Facility*** or a ***Sewer*** connected to a ***Sewage Facility*** operated by the ***District***, ***Non-domestic Waste***, which has bypassed any ***Waste*** control works ***Authorized*** and required by the ***Manager***, or which is not otherwise in compliance with this Schedule.

4. RECORDS RETENTION

.1 Holders of a ***Waste Discharge Permit*** or ***Authorization*** permitting the ***Discharge*** of ***Waste*** produced on property other than ***Residential Property***;

(a) shall retain and preserve for not less than six (6) years after their creation, any records, books, documents, memoranda, reports, correspondence, and any and all summaries of such documents, relating to monitoring, sampling and chemical analysis required by the ***Manager***, a ***Waste Discharge Permit***, or ***Authorization***.

(b) shall retain and preserve all records that pertain to issues that are the subject of administrative action or any other enforcement or litigation activities by the ***District*** until all enforcement activities have concluded and all periods of limitation with respect to any and all appeals have expired.

5. NOTIFICATION

.1 Any person who discharges ***Waste*** or allows the ***Discharge*** of ***Waste*** into a ***Sewer*** or a ***Sewage Facility*** in contravention of any ***Waste Discharge Permit***, or ***Authorization***, or that is otherwise in contravention of this Schedule, after becoming aware of the ***Discharge***, shall stop the ***Discharge***, and after reporting the ***Discharge*** in accordance with the ***Spill Reporting Regulation*** shall immediately notify:

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(a) the ***Manager*** by telephone and provide the information specified in Sub-section 6.2;

(b) the ***Owner*** of the ***Premises***; and

(c) any other person whom the person reporting knows, or reasonably should know, may be directly affected by the ***Discharge***.

.2 The ***Manager*** shall be supplied with the following information:

(a) identification of the ***Premises*** where the ***Discharge*** occurred;

(b) location of the ***Discharge***,

(c) name of the person reporting the ***Discharge*** and telephone number, or numbers, where that person can be reached;

(d) date, time and duration of the ***Discharge***;

(e) type and concentration of all ***Substances*** discharged and any known associated hazards;

(f) total weight or volume of the material discharged; and

(g) corrective action being taken, or anticipated to be taken, to control the ***Discharge*** or to prevent similar ***Discharges***.

.3 A person who discharged or allowed a ***Discharge*** of ***Waste*** referred to in Subsection 6.1 shall, as soon as that person becomes aware, or reasonably should have become aware of the ***Discharge***, take all reasonable measures to:

(a) confine, minimize, counteract, mitigate, remedy, and repair the effects of the ***Discharge***; and

(b) remove or otherwise dispose of the ***Substance*** discharged in a manner consistent with this Schedule and other applicable ***Enactments***.

.4 A person operating under a ***Waste Discharge Permit*** shall notify the ***Manager*** in writing not less than 90 days prior to:

(a) commencing a new activity; or

(b) expanding or changing an existing activity; which affects or may affect the average composition, or the total volume of ***Waste*** discharged by that person.

6. POWERS OF THE MANAGER

.1 The ***Manager*** may enforce the provisions of this Schedule.

.2 The ***Manager***, or any person ***Authorized*** by the ***Manager***, may at any reasonable time and upon presentation of proof of his identity, enter upon any property or ***Premises*** in order to ascertain whether the terms of a ***Waste Discharge Permit***, an ***Authorization*** have been, or are being complied with, or the regulations of this Schedule are being observed.

.3 Nothing in this Schedule shall be interpreted as restricting the powers of the Regional Manager of the Ministry of Environment under the ***Environmental Management Act*** of British Columbia and Regulations, or of the ***Manager*** of Engineering Services of the CVRD.

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7. MONITORING OF DISCHARGES

.1 A ***Manager***, may require that a person who is discharging any ***Waste*** other than ***Domestic Sewage*** into a ***Sewer*** shall, at his expense, install one or more ***Monitoring Points*** suitable for inspection, flow monitoring, and sample collection at locations determined by the ***Manager***, to be constructed in accordance with plans approved by the ***Manager*** and maintained in good working order by the person.

.2 A ***Monitoring Point*** required under subsection 7.1 shall be installed in a manner so as not to be affected by any ***Discharge*** of ***Domestic Waste*** from a ***Premises***, unless otherwise ***Authorized*** by the ***Manager***.

.3 A ***Monitoring Point*** required under subsection 7.1 shall, for the purposes of enforcing this Schedule, be deemed to be the point or points at which a ***Discharge*** into a ***Sewer*** or ***Sewage Facility*** is made.

.4 In the absence of a ***Monitoring Point*** under subsection 7.1, the point of ***Discharge*** into a ***Sewer*** or ***Sewage Facility*** shall, for the purposes of enforcing this Schedule, be the location determined by the ***Manager*** where access can be had to the ***Waste*** for the purpose of sampling.

.5 Where a person is required to install a ***Monitoring Point*** under subsection 7.1, and the person cannot comply with such requirement within 60 days of being notified of the requirement by the ***Manager***, the person shall, within 60 days of the notice being issued by the ***Manager***, inform the ***Manager*** of his inability to install the ***Monitoring Point*** and the ***District*** may install, or cause to be installed, the ***Monitoring Point*** at the person's expense.

.6 The ***Owner*** of a ***Premises*** shall ensure that all ***Monitoring Points***, flow measuring devices and other devices specified in the ***Waste Discharge Permit***, including water meters, are accessible for inspection by the ***Manager*** at all times.

.7 The ***Manager*** may require that a person who is discharging ***Waste*** into a ***Sewer*** undertake, at that person's expense, sampling and analysis of the ***Waste*** discharged.

.8 All sampling and analysis required by a ***Manager*** shall be carried out in accordance with methods and procedures specified in ***Standard Methods*** or in a manner specified by the ***Manager***.

.9 Samples which have been collected as the result of a requirement of the ***Manager*** shall be analysed by an independent agency or by a laboratory ***Authorized*** by the ***Manager***.

8. OFFENCES AND PENALTIES

.1 A person who contravenes this Schedule, a ***Waste Discharge Permit***, or ***Authorization*** issued under this Schedule, or other requirement made or imposed under this Schedule, is guilty of an offence and is liable to a fine not exceeding $10,000.00.

.2 Where an offence is committed or continues for more than one day, a person shall be deemed to have committed separate offences for each day on, or during which an offence occurs or continues, and separate fines, each not exceeding $10,000.00 may be imposed for each day on or during which an offence occurs or continues.

.3 Nothing in this Schedule shall limit the ***District*** from pursuing any other remedy that would otherwise be available to the ***District*** at law.

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9. GENERAL

.1 No person shall hinder or prevent the ***Manager***, or a Bylaw Enforcement Officer, from entering any ***Premises*** or from carrying out his duties with respect to the administration of this Bylaw.

.2 Nothing in this Schedule shall be interpreted as relieving a person discharging ***Waste*** from complying with federal, provincial and local government ***Enactments*** governing the ***Discharge*** of ***Waste*** into ***Sewers***.

.3 Where the ***Regional Board*** has authority to direct that a matter or thing be done by a person, the ***Regional Board*** may also direct that, if the person fails to take the required action, the matter, or thing, shall be done at the expense of the person in default in accordance with the Local Government Act. If action in default is taken, the ***Regional Board*** may recover the expense from the person, together with costs and interest at the rate prescribed under Section 11(3) of the Taxation (Rural Area) Act, in the same manner as municipal taxes.

.4 The Articles annexed hereto shall be deemed to be an integral part of this Schedule.

.5 If any provision of this Schedule is found to be invalid by a court of competent jurisdiction it may be severed from the Schedule.

.6 The headings in this Schedule are inserted for convenience of reference only.

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ARTICLE "A"

PROHIBITED WASTE

Prohibited Waste means:

1. ***Special Waste***:
   Special Waste as defined by the ***Environmental Management Act*** of British Columbia and its Regulations.

2. ***Air Contaminant Waste***:
   Any ***Waste*** other than ***Sanitary Waste*** which, by itself or in combination with another ***Substance***, is capable of creating, causing or introducing an ***Air Contaminant*** outside any ***Sewer*** or ***Sewage Facility***, or is capable of creating, causing or introducing an ***Air Contaminant*** within any ***Sewer*** or ***Sewage Facility*** which would prevent safe entry by ***Authorized*** personnel.

3. ***Flammable or Explosive Waste***:
   Any ***Waste***, which by itself or in combination with another ***Substance***, is capable of causing, or contributing to an explosion, or supporting combustion in any ***Sewer*** or ***Sewage Facility*** including, but not limited to gasoline, naphtha, propane, diesel, fuel oil, kerosene or alcohol.

4. ***Obstructive Waste***:
   Any ***Waste*** which by itself, or in combination with another ***Substance***, is capable of obstructing the flow of, or interfering with, the operation or performance of any ***Sewer*** or ***Sewage Facility*** including, but not limited to earth, sand, sweepings, gardening, or agricultural waste, ash, chemicals, paint, metal, glass, ***Sharps***, rags, cloth, tar, asphalt, cement-based products, plastic, wood, waste portions of animals, fish or fowl and solidified fat.

5. ***Corrosive Waste:***
   Any ***Waste*** with corrosive properties which, by itself, or in combination with any other ***Substance***, may cause damage to any ***Sewer*** or ***Sewage Facility***, or which may prevent safe entry by ***Authorized*** personnel.

6. ***High Temperature Waste:***
   (a) Any ***Waste*** which, by itself or in combination with another ***Substance***, will create heat in amounts which will interfere with the operation and maintenance of a ***Sewer*** or ***Sewage Facility***, or with the treatment of ***Waste*** in a ***Sewage Facility***;

   (b) Any ***Waste*** which will raise the temperature of ***Waste*** entering any ***Sewage Facility*** to 40 degrees Celsius (104 degrees Fahrenheit), or more;

   (c) Any ***Non-domestic Waste*** with a temperature of 65 degrees Celsius (150 degrees Fahrenheit), or more.

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7. ***Biomedical Waste:***
   Any of the following categories of ***Biomedical Waste;*** human anatomical waste, animal waste, untreated microbiological waste, waste ***Sharps*** and untreated human blood and body fluids known to contain viruses and agents listed in "Risk Group 4" as defined in "Laboratory Bio-safety Guidelines" published by Health and Welfare Canada and dated 1990.

8. ***PCBs, Pesticides:***
   Any ***Waste*** containing ***PCB***s or ***Pesticides***.

9. ***Miscellaneous Wastes:***
   Any ***Waste***, other than ***Sanitary Waste***, which by itself, or in combination with another ***Substance***:

   (a) constitutes or may constitute a significant health or safety hazard to any person;

   (b) may interfere with any sewage treatment process;

   (c) may cause a ***Discharge*** from a ***Sewage Facility*** to contravene any requirements by or under any BC Waste Management Discharge Permit, or any other act, law or regulation governing the quality of the ***Discharge***, or may cause the ***Discharge*** to result in a hazard to people, animals, property or vegetation;

   (d) may cause ***Biosolids*** to fail criteria for beneficial land application in British Columbia as set out in the draft "Guidelines for the Disposal of Domestic Sludge under the ***Environmental Management Act***", prepared by the Ministry of Water, Land and Air Protection and dated 1983, or may cause the emissions from a ***Wastewater Sludge*** combustion facility to be out of compliance with appropriate permits, or may cause the ashes from a ***Wastewater Sludge*** combustion facility to be considered a ***Special Waste*** under the ***Environmental Management Act*** of British Columbia.

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ARTICLE "B"

RESTRICTED WASTE

Restricted Waste means:

1. Any ***Waste*** which, at the point of ***Discharge*** into a ***Sewer***, contains any ***Contaminant*** at a concentration in excess of the limits set out below. All concentrations are expressed as total concentrations which includes all forms of the ***Contaminant***, whether dissolved or undissolved. The concentration limits apply to both ***Grab*** and ***Composite Samples***. ***Contaminant*** definitions and methods of analysis are outlined in ***Standard Methods*** or methods specified by the ***Manager***.

   Any of the ***Contaminants*** listed below in tables (a), (b) or (c) that are present in a ***Waste*** at dissolved concentrations in excess of the ***Special Waste Regulation Leachate Quality Criteria*** will qualify that ***Waste***, regardless of the sampling method used, as a ***Special Waste***.

(a) CONVENTIONAL *CONTAMINANTS* (mg/L)	
Biochemical Oxygen Demand (***BOD***)	300
Chemical Oxygen Demand (***COD***)	600
Oil and Grease	100
Suspended Solids	350
Total Nitrogen (***TN***)	80
Total Phosphorous (***TP***)	10

NOTE: *Total ***Oil and Grease*** includes Petroleum Hydrocarbons (see table (b)).

(b) ORGANIC *CONTAMINANTS* (mg/L)	
Benzene, Ethyl Benzene, Toluene, Xylene (BETX)	1
Chlorinated ***Phenols***	1.0
Polycyclic Aromatic Hydrocarbons (PAH)	0.05
Phenols	1
Petroleum Hydrocarbons	15

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(c) INORGANIC *CONTAMINANTS* (mg/L)		
Aluminium	(Al)	50.0
Arsenic	(As)	1.0
Boron	(B)	50.0
Cadmium	(Cd)	0.2
Chromium	(Cr)	4.0
Cobalt	(Co)	5.0
Copper	(Cu)	2.0
Cyanide	(CN)	1.0
Iron	(Fe)	10.0
Lead	(Pb)	1.0
Manganese	(Mn)	5.0
Mercury	(Hg)	0.05
Molybdenum	(Mo)	1.0
Nickel	(Ni)	2.0
Silver	(Ag)	1.0
Sulphate	(SO_4)	1500
Sulphide	(S)	1.0
Tin	(Sn)	5.0
Zinc	(Zn)	3.0

2. ***Food Waste:***
   Any ***Non-domestic Waste*** from cooking and handling of food that, at the point of ***Discharge*** into a ***Sewer***, contains particles larger than 0.5 centimetres in any dimension.

3. ***Radioactive Waste:***
   Any ***Waste*** containing ***Radioactive Materials*** that, at the point of ***Discharge*** into a ***Sewer***, exceeds radioactivity limitations as established by the Atomic Energy Control Board of Canada.

4. ***pH Waste:***
   Any ***Non-domestic Waste*** which, at the point of ***Discharge*** into a ***Sewer***, has a ***pH*** lower than 5.5 or higher than 9.5 as determined by either a ***Grab*** or a ***Composite Sample***.

5. ***Dyes and Colouring Material:***
   Dyes or colouring materials which may pass through a ***Sewage Facility*** and discolour the effluent from a ***Sewage Facility*** except where the dye is used by the ***District***, or one or more of its ***Municipalities***, as a tracer.

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ARTICLE "C"

WASTE DISCHARGE PERMIT APPLICATION

This Information Sheet is provided to assist you in the preparation and submission of an application for a ***Waste Discharge Permit*** under the CVRD – Sentinel Ridge Sewer System Management Bylaw No. 2830, 2006. Once the form has been completed, initial each page and sign the declaration. To assist the CVRD Engineering Services Department in processing of the application, please make an accurate, readable and complete submission to the address provided below.

A. APPLICATION FORMS

1. COMPANY INFORMATION:
   Indicate the company name, incorporation number, type of business, and location of the business. If your business or organization has more than one site address, please copy this form and complete a separate application for each site.

2. SUMMARY OF EFFLUENT DISCHARGE CHARACTERISTICS:
   Complete this section to indicate ***Discharge*** duration, volume and quality.

3. NUMBER OF CONNECTIONS:
   List the number and type of connections to ***Sewer***.

4. SOURCES OF WASTEWATER:
   Where ***Non-domestic Waste*** is being discharged to ***Sanitary Sewer*** or ***Storm Sewer***, list any pre-treatment works and the actual source of the wastewater.

5. SITE PLAN:
   A site plan must be submitted. Clearly mark the plant boundary, buildings, and approximate locations of new and existing works, ***Monitoring Points*** and ***Sewer*** connections.

6. DECLARATION FORM:
   The application form must be signed. Please ensure that the first box in the Declaration Section is complete. An application may be filed by an agent of the ***Applicant*** and, unless the ***Manager*** deems otherwise, an obligation imposed by this Schedule on an ***Applicant*** may be carried out by his agent. If you wish to appoint an agent, please complete the appropriate box in the Declaration Section.

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B. ADDITIONAL INFORMATION

1. Specifications and drawings of process equipment and control works associated with the ***Discharge*** should be submitted to assist the CVRD's Engineering Services Department with the evaluation of the application. The ***Manager*** may request submission of additional details relevant to the application. Should additional application forms be required, they may be obtained from:

   Manager, Engineering Services
   Cowichan Valley Regional District
   175 Ingram Street
   Duncan, BC V9L 1N8

2. In the event of accidental ***Discharge*** of a ***Prohibited*** or ***Restricted Waste*** to a ***Sewer*** (as described under Articles "A" and "B" of this Schedule), please call:

   CVRD Engineering Services Department, Tel (250) 746-2530, Fax (250) 746-2543.

APPLICATION FOR A WASTE DISCHARGE PERMIT

Application for a ***Waste Discharge Permit*** under the Sentinel Ridge Sewer System Management Bylaw No. 2830, 2008. This application is to be filed with the ***Manager***, as described in Article "C", Section B.1, not less than 90 days prior to the date for which a Permit is required.

1. I, _____
(Full name - if a company, British Columbia Registered Name)

Registered Address: _____

_____

Incorporation Number: _____

hereby apply for a ***Waste Discharge Permit*** to ***Discharge Non-domestic Waste*** into ***Sanitary Sewer*** from a:

_____
(Type of Business)

Located at: _____

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2. Summary of Wastewater Discharge Characteristics:

Maximum Duration of Operation: (hours/day) _____

(days/week) _____

(weeks/year) _____

Flow:
Is the ***Discharge*** greater than 90 m^3 in a 30 day period?: ☐ yes ☐ no

Frequency:
Maximum ***Discharge*** flow rate: _____(m^3/day)

Average daily ***Discharge*** flow rate: _____(m^3/day)

Method of flow rate determination: _____

☐ measured ☐ estimated

(NOTE: 1 m^3 = 220 Imperial gallons, or 264 U.S. gallons)

Type of *Discharge*:

☐ continuous ☐ batch ☐ both

Quality:
Use the check boxes to indicate whether any of the following types of ***Wastes*** are discharged:

Flammable or explosive waste	☐ yes	☐ no
Obstructive waste	☐ yes	☐ no
Air Contaminant waste	☐ yes	☐ no
High temperature waste	☐ yes	☐ no
Corrosive waste	☐ yes	☐ no
Biomedical Waste	☐ yes	☐ no
Food waste	☐ yes	☐ no
Radioactive Waste	☐ yes	☐ no

Special Waste:
Does any process within the plant produce ***Special Waste*** as defined under the ***Special Waste Regulation*** of the ***Environmental Management Act*** of British Columbia?

☐ yes ☐ no ☐ do not know

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***Wastewater* Characteristics:**
In the space provided below, check the appropriate box for each ***Wastewater Contaminant*** to indicate whether the ***Contaminant*** listed is "known to be present", "suspected to be present", "suspected to be absent", or "known to be absent", in the ***Wastewater Discharge***.

If a ***Contaminant*** is "known to be present", or "suspected to be present", estimate the expected average and maximum daily ***Contaminant*** concentrations in the spaces provided.

If ***Wastewater Discharges*** have been sampled and analysed in the past, please attach examples of sampling data.

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Wastewater Contaminants	*Known to be present*	*Suspected to be present*	*Suspected to be absent*	*Known to be absent*	*Expected Concentration mg/L (ppm)*	
					Average	Maximum
Conventional Contaminants:						
Ammonia	☐	☐	☐	☐	_____	_____
Biochemical Oxygen Demand (***BOD***)	☐	☐	☐	☐	_____	_____
Chemical Oxygen Demand (***COD***)	☐	☐	☐	☐	_____	_____
Total Phosphorous (***TP***)	☐	☐	☐	☐	_____	_____
Suspended Solids	☐	☐	☐	☐	_____	_____
Total Nitrogen (***TN***)	☐	☐	☐	☐	_____	_____
Oil and Grease (total)	☐	☐	☐	☐	_____	_____
pH max___ min ___	☐	☐	☐	☐	_____	_____
Organic Contaminants:					Average	Maximum
Petroleum Hydrocarbons	☐	☐	☐	☐	_____	_____
Phenols (total)	☐	☐	☐	☐	_____	_____
Phenols (chlorinated)	☐	☐	☐	☐	_____	_____
Polycyclic Aromatic Hydrocarbons (PAH)	☐	☐	☐	☐	_____	_____

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Wastewater Contaminants	*Known to be present*	*Suspected to be present*	*Suspected to be absent*	*Known to be absent*	*Expected Concentration mg/L (ppm)*	
					Average	Maximum
***PCB*s**	☐	☐	☐	☐	_____	_____
Pesticides	☐	☐	☐	☐	_____	_____
Benzene	☐	☐	☐	☐	_____	_____
Ethylbenzene	☐	☐	☐	☐	_____	_____
Toluene	☐	☐	☐	☐	_____	_____
Xylene	☐	☐	☐	☐	_____	_____
Solvents (specify)	☐	☐	☐	☐	_____	_____
Inorganic Contaminants					Average	Maximum
Aluminium (Al)	☐	☐	☐	☐	_____	_____
Arsenic (As)	☐	☐	☐	☐	_____	_____
Boron (B)	☐	☐	☐	☐	_____	_____
Cadmium (Cd)	☐	☐	☐	☐	_____	_____
Chromium (Cr)	☐	☐	☐	☐	_____	_____
Cobalt (Co)	☐	☐	☐	☐	_____	_____
Copper (Cu)	☐	☐	☐	☐	_____	_____
Cyanide (CN)	☐	☐	☐	☐	_____	_____
Iron (Fe)	☐	☐	☐	☐	_____	_____
Lead (Pb)	☐	☐	☐	☐	_____	_____
Manganese (Mn)	☐	☐	☐	☐	_____	_____
Mercury (Hg)	☐	☐	☐	☐	_____	_____
Molybdenum (Mo)	☐	☐	☐	☐	_____	_____
Nickel (Ni)	☐	☐	☐	☐	_____	_____
Silver (Ag)	☐	☐	☐	☐	_____	_____
Sulphate (SO_4)	☐	☐	☐	☐	_____	_____
Sulphide (S)	☐	☐	☐	☐	_____	_____
Tin (Sn)	☐	☐	☐	☐	_____	_____
Zinc (Zn)	☐	☐	☐	☐	_____	_____
Other _____	☐	☐	☐	☐	_____	_____

.../18

3. **Number of Connections to *Sewer*:**

   a. ***Sanitary Sewer*:**

   Domestic Waste only _____

   Non-domestic Waste only _____

   Combined domestic and ***Non-domestic Waste*** _____

   (Note connection locations on attached site plan.)

Will ***Stormwater*** be ***discharged*** to ***Sanitary Sewer***?

Yes ☐ Volume ____ m^3/day No ☐

Will contaminated or uncontaminated water be ***discharged*** to ***Sanitary Sewer***?
(Note connection locations on attached site plan.)

Yes ☐ Volume ____ m^3/day No ☐

4. **Sources of *Wastewater Discharge* to *Sewer*:**

(Note location of sources and control works on attached site plan.)

SOURCE OF ***WASTEWATER***

CONTROL WORKS TREATING EACH SOURCE PRIOR TO ***DISCHARGE*** TO ***SEWER****
(e.g. Trade Waste Interceptor)

   a. ***Sanitary Sewer*:**

*Control Works include: oil/water separators, grease traps, filters, electrolytic precipitators, reverse osmosis units, ion exchange units, neutralization facilities and other ***Wastewater*** pre-treatment works.

.../19

5. **Site Plan:**
Sketch a site plan in the area provided below or attach a site plan to this application form. The plan shall include property lines, buildings, pre-treatment works, effluent lines, sanitary and ***Storm Sewer*** connections, flow measuring devices, and ***Monitoring Points*** (or available sampling locations).

(Include approximate scale on site plan.)

^North^

.../20

6. Declaration:

I, _____, declare that the information given on this application form is correct to the best of my knowledge.

_____ _____
Signature of Applicant or Agent Date

_____ _____
Title Phone Number

If you elect to appoint an Agent, please complete the following:

I, _____ / _____
Print Name Title

_____
Signature

hereby authorize _____ / _____
Print Name Affiliation

to deal with you directly on all aspects of the subject application.

C·V·R·D

R5

STAFF REPORT

ENGINEERING & ENVIRONMENTAL SERVICES COMMITTEE MEETING OF FEBRUARY 23, 2011

DATE: February 9, 2011 **FILE NO:** 5380-20/BCSWMC

FROM: Jason Adair, Superintendent, Solid Waste Operations

SUBJECT: Expenditure prior to adoption of 2011 Budget

Recommendation/Action:
That the Board waive the CVRD Purchasing Policy and, prior to approval of the 2011 budget, authorize purchase of an Expanded Polystyrene (Styrofoam) Densifier for the Bings Creek Solid Waste Management Complex, in the amount of $35,000.00.

Relation to the Corporate Strategic Plan: Responsible Waste Management.

Financial Impact: *(Reviewed by Finance Division: SEM)*
Purchase of this equipment will provide a potential cost savings of up to $ 51,000 annually. This $35,000 capital purchase will be funded by a decrease in the 2011 budget line "Alternate Disposal of Solid Waste".

Background:
The following resolution was adopted at the CVRD Board meeting of August 11, 2010:

- .1 ***That the CVRD implement collection of Styrofoam for recycling at CVRD depots in the Fall 2010,***
- .2 ***The CVRD offer collection of Styrofoam at no charge, and further***
- .3 ***That the CVRD purchase the XT200 EPS densifier for the purpose of implementing a Styrofoam Recycling Program.***

The delay in purchasing this equipment was due to demands on staff time and sourcing the appropriate supplier. As delivery of this equipment will take several weeks, staff would like to order it prior to adoption of the 2011 Budget in order to have the Styrofoam Recycling Program in place by April, 2011. Once the machine is up and running staff will look at amending Bylaw No. 2108, Solid Waste Management Charges & Regulations Bylaw, year 2000, to ban Styrofoam from the waste stream.

Submitted by,

Jason Adair, Superintendent
Solid Waste Operations

Reviewed by:
Division Manager:

Approved by:
General Manager:

:jlb
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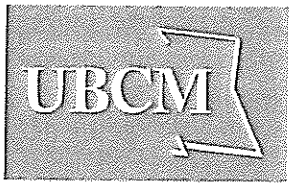

MEMBER RELEASE

February 2, 2011

TO: Mayor & Council, Chair & Board, Senior Staff

FROM: Ken Vance, Senior Policy Advisor

RE: Diking Authorities for New Dikes

Attached is a policy statement that has been developed by the province that it will use to guide decisions on the approval of new flood protection dikes and the upgrading of existing orphan dikes to provincial dike standards.

Local governments that have land use development in flood prone areas that may require diking in the future or have other flood protection issues should review this document to determine what impact the policy may have on them.

UBCM has had discussions with the province on this issue and it has agreed to give local government the opportunity to review the policy that has been developed and to provide comments on it.

UBCM would request that your local government review the attached provincial policy on new dikes and forward any comments to Ken Vance at the UBCM Offices in Richmond at kvance@ubcm.ca by **February 25, 2011**.

BRITISH COLUMBIA
The Best Place on Earth

Ministry of Environment
&
Ministry of Natural Resource Operations

NAME OF POLICY:	Diking Authorities for New Dikes
APPLICATION:	This policy will guide approvals for new dikes constructed in British Columbia.
ISSUANCE:	Director, Water Management Branch, MNRO
IMPLEMENTATION:	MNRO and MOE staff, including the Inspector and Deputy Inspectors of dikes.
REFERENCES:	*Dike Maintenance Act* Section 2(4)(e)
RELATED POLICIES:	n/a
RELATIONSHIP TO PREVIOUS POLICY:	This new policy formalizes operational practice.
POLICY AMENDMENT:	Any formal request for amendment to this policy is to be directed in writing to the Director, Water Management Branch.

10/12/14

Glen Davidson
Director and CWR
Water Management Branch
Ministry of Natural Resource Operations

Date:

Dec 14/10.

Lynn Kriwoken
Director
Water protection & Sustainability Branch
Ministry of Environment

Date:

EFFECTIVE DATE: December 6, 2010 **FILE:** 35050-00
AMENDMENT NO:

APPROVED AMENDMENTS:		
Effective date	Briefing Note /Approval	Summary of Changes:

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1. POLICY STATEMENT

To protect the public interest and safety of life and property, the construction of new dikes shall only be approved where the local government jurisdiction has:

1. agreed (through a Council, or Board resolution) to become the diking authority and to be fully responsible for operation and maintenance of the new dike; and

2. acquired legal access to the lands on which the new dike is to be constructed.

2. DEFINITIONS

"construction of a new dike" - means the construction of new flood protection dikes and the upgrading of existing orphan dikes to provincial dike standards.

"orphan dikes" - means flood protection dikes that are not being maintained by an owner or diking authority.

Additional relevant terms are defined in the *Dike Maintenance Act.*

3. PREFACE

Two of the essential aspects of British Columbia's flood protection standards, as set out in the "Guidelines for Management of Flood Protection Works in British Columbia" Ministry of Environment, March, 1999, are:

1) implementation by a diking authority of an ongoing, adequately funded dike management program including inspection, patrolling, emergency planning, operation, maintenance and repairs in accordance with an approved Operation and Maintenance (O&M) manual; and

2) the diking authority acquiring and maintaining full legal access (land ownership or permanent rights of way) and physical accesses to allow effective operation and maintenance of the dike.

For historical reasons, the approximately 100 diking authorities in BC are comprised of several types of legal entities including municipalities, regional districts, improvement districts, diking districts under the *Drainage Ditch and Dike Act*, strata corporations, rate-payers associations, government agencies, non-government organizations, private corporations and private individuals.

Operational experience over the past few decades has shown that many of these "diking authorities" have had significant difficulties in maintaining an "ongoing, adequately funded dike management program..." and "acquiring and maintaining legal access.." This has been particularly true for those diking authorities that do not have the powers

that are provided to local governments with respect to taxation, emergency response, land use approvals, expropriation, and other regulatory authority.

For more than ten years it has been provincial government practice to require that the diking authority for the new dike must be a local government. Examples include the Resort Municipality of Whistler's Whistler Creek Flood Protection Works; the Fraser Valley Regional District's Elbow Creek dike on the Harrison River and the Wilson Road dike on the Chilliwack River; and the Squamish Lillooet Regional District's dike at Furry Creek.

4. STRATEGIC PRINCIPLES

Local governments are the most appropriate legal entities to assume responsibility for new flood protection structures as demonstrated by the following principles:

1) **Emergency Response:** Local governments are legally required to have an emergency management plan under the *Emergency Program Act* and to be the first responder to flooding. Other types of diking authorities have no comparable requirement or responsibility. For those dikes where the local government is responsible for inspection and maintenance of protection works, dike patrols and flood fighting, as well as overall emergency response, the local government can effectively coordinate the flood response.

2) **Access to Funds:** Local governments have much greater access to flood protection funds from senior levels of government than other types of diking authorities and are therefore in a better position to sustain adequate operation and maintenance. Examples include access to cost sharing programs for major repairs or upgrades (i.e. Build Canada Fund) and emergency response funds (Disaster Financial Assistance) during and after damaging flood events.

3) **Technical and Management Issues:** Technical and project management skills are required to operate and maintain flood protection works. Local governments typically have greater capabilities in this area than other types of diking authorities.

4) **Authority to Undertake Instream Work:** When maintenance work involving cleaning out structures and/or stream channels is required local governments are enabled under the *Water Act* regulations, whereas, other types of diking authorities are not.

5) **Longevity:** Although jurisdictional boundaries can change, the longevity of local government can be relied on. Other types of diking authorities such as strata councils, management companies and private corporations change with time along with their priorities, making them a less stable entity.

6) **Continuity, Communication and Coordination:** Often times there are several decades between larger floods and/or debris flow events. Diking district and strata council members are comprised of volunteers, whose membership typically changes frequently. These individuals are used to dealing with more regular occurring issues and historically have tended to neglect inspection and maintenance once the land development was approved. The Ministry of Natural Resource Operations does not have the resources to track down the individuals responsible when inspection reports are not submitted. Nor does the Ministry of Natural Resource Operations have the resources to undertake the increased need for auditing, monitoring and training to support compliance with dike safety requirements.

7) **Legal Access:** Local governments have the full legal powers for land use planning, development approval, and expropriation. It is critical for effective operation and maintenance that the diking authority have either statutory rights of way, or ownership of land to ensure that works are not disturbed and to ensure continued access for inspection, maintenance and dike upgrading over time. Also local governments have extra powers to act and access property under *Emergency Program Act* when an emergency is declared.

8) **Amalgamation With Other Services:** Local governments typically provide many, if not all, of locally available public services, including roads, drainage, water, and sewer. Coordination of public service delivery, including taxation, is facilitated by combining the responsibilities within local government. Other types of diking authorities typically only have the dike maintenance responsibility. For example, there are administrative barriers for strata councils and improvement districts to amalgamate services such as water supply and flood protection.

5. POLICY APPLICATION

This policy applies to situations where the Ministry of Natural Resource Operations has received a *Dike Maintenance Act* (DMA) approval application for the construction of a new dike.

6. APPROVAL PROCEDURES

6.1 The Ministry of Natural Resource Operations should advise proponents of new dikes, and their respective local government of this policy as early as possible in the development process.

6.2 The Ministry of Natural Resource Operations should not issue a DMA approval for a new dike until the local government has both :

a) passed a Council, or Board resolution agreeing to become the diking authority, and

b) acquired the necessary land for dike ownership and maintenance through fee simple ownership, or through the registration of statutory rights of way.