



Making a difference...together

SAANICH PENINSULA WASTEWATER COMMISSION

Notice of Meeting on **Thursday, September 17, 2015 at 9 am**

Saanich Peninsula Treatment Plant Meeting Room, 9055 Mainwaring Road, North Saanich, BC

M. Williams (Chair)	P. Wainwright (Vice-Chair)	R. Barnhardt	M. Doehnel
Z. King	M. Lougher-Goodey	A. Rowland	C. Stock
J. Thornburgh	R. Windsor		

AGENDA

1. Approval of Agenda
2. Adoption of Minutes of June 18, 2015
3. Chair's Remarks
4. Presentations/Delegations
 - No one has registered to speak
5. Saanich Peninsula Wastewater Development Cost Charges Update (Report #SPWWC 2015 - 09)
6. Saanich Peninsula Wastewater Treatment – Options for Biosolids Treatment/Disposal (Report #SPWWC 2015 - 08)
7. Renewal of Wastewater Service Agreement with the Institute of Ocean Sciences, Pauquachin First Nation and Tseycum First Nation (Report #SPWWC 2015 - 10)
8. Correspondence
 - Letter to District of Central Saanich, re: Transfer of Sewer Infrastructure Assets (to be distributed at the meeting)
9. New Business
10. Next Meeting
 - Budget Meeting, Thursday, October 15, 2015
11. Adjournment

Distribution:

Staff/Town Halls, etc.

R. Lapham
L. Hutcheson
D. Lokken
A. Orr
J. Poncelet
G. Harris

T. Robbins
M. Cowley
D. Robson
I. Sander
M. Montague
Commission file

P. Robins, Central Saanich
D. McAllister, Central Saanich
R. Buchan, North Saanich
P. O'Reilly, North Saanich
R. Humble, Sidney
T. Tanton, Sidney
Tsartlip First Nation

To ensure a quorum, advise Margaret at 250.474-9606 if you or your alternate cannot attend.
1742689



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**Minutes of a Meeting of the Saanich Peninsula Wastewater Commission
Held June 18, 2015 in the Saanich Peninsula Treatment Plant Meeting Room,
9055 Mainwaring Road, North Saanich, BC**

PRESENT: Commissioners: M. Williams (Chair), M. Lougher-Goodey, J. Thornburgh, P. Wainwright, R. Windsor, M. Doehnel, Z. King, C. Stock
ABSENT: Commissioners: A. Rowland, R. Barnhart
Staff: T. Robbins, General Manager, Integrated Water Services; P. Sparanese, Senior Manager, Infrastructure Engineering & Operations; G. Harris, Senior Manager, Environmental Protection; D. Green, Supervisor, Stormwater Quality; C. Gottfred, Manager, Wastewater Engineering and Planning; M. Montague (recorder)
Guests: G. Orr, P. O'Reilly

1. APPROVAL OF AGENDA

MOVED by Commissioner Windsor, **SECONDED** by Commissioner Lougher-Goodey, that the Saanich Peninsula Water Commission approve the agenda.

CARRIED

2. ADOPTION OF MINUTES

MOVED by Commissioner Lougher-Goodey, **SECONDED** by Commissioner Windsor, that the Saanich Peninsula Water Commission adopt the minutes of the April 16, 2015 meeting.

CARRIED

3. CHAIR'S REMARKS

The Chair remarked that he will be away from September 13 to October 16 and P. Wainwright will act as the Chair during that period.

4. PRESENTATIONS/DELEGATIONS

None.

5. CORRESPONDENCE

T. Robbins spoke to the letter from R. Paquette requesting that the tree line surrounding the waste treatment plant be topped to a height sufficient to restore the ocean view previously enjoyed by the property owners in the neighbourhood.

MOVED by Commissioner Windsor, **SECONDED** by Commissioner Lougher-Goodey, That the Saanich Peninsula Wastewater Commission authorize staff to allocate \$10,000 from the operational budget to undertake work to bring the trees down to the level of the other trees after consulting with an arborist.

DEFEATED

MOVED by Commissioner Stock, **SECONDED** by Commissioner King, That the Saanich Peninsula Wastewater Commission direct staff to provide a report outlining different options for dealing with the trees and to respond to the letter writer indicating this course of action.

CARRIED

6. BAZAN BAY OUTFALL INSPECTION

T. Robbins provided a verbal report on the inspection of the Bazan Bay outfall. He reported that a notice was sent to residents after discovering a 4" hole in the outfall close to the shore. A dive crew has made the repairs to the pipe and if there are any further issues, a report will be brought to the Commission for consideration.

7. DISTRICT ENERGY SYSTEM PROJECT UPDATE – PHASE 2 COST BENEFIT ANALYSIS

T. Robbins spoke to the report.

MOVED by Commissioner Lougher-Goodey, **SECONDED** by Commissioner Stock,
That the Saanich Peninsula Wastewater Commission direct staff:

1. To continue actively considering any opportunities that arise with potential customers for the for the DES;
2. To meet with PRC staff to discuss the requirement to raise the current energy rate from \$12.015/GJ and to negotiate an increase in the energy rate resulting in a financially neutral position for PRC;
3. Review the energy rate annually and adjust as required to reflect market values; and
4. Re-evaluate the financial situation when major equipment fails, and present the Commission with an evaluation report on the viability of continuing with DES operations.

CARRIED

MOVED by Commissioner Wainwright, **SECONDED** by Commissioner King,
That the Saanich Peninsula Wastewater Commission direct staff to approach the Core Area Liquid Waste Management Committee and the Roundtable on the Environment to request that they add an item to their agenda entitled “Recommendations from other Wastewater Commissions” as a regular item.

CARRIED

MOVED by Commissioner King, **SECONDED** by Commissioner Stock,
That the Saanich Peninsula Wastewater Commission direct staff to ask the Core Area Liquid Waste Management Committee and the Roundtable on the Environment if they would like staff to make a short presentation to the committee on the lessons learned from the DES project.

CARRIED

8. RENEWAL OF WASTEWATER SERVICE AGREEMENT WITH VICTORIA AIRPORT AUTHORITY

MOVED by Commissioner Lougher-Goodey, **SECONDED** by Commissioner Windsor,
That the Saanich Peninsula Wastewater Commission approve the renewal of the Victoria Airport Authority wastewater service agreement for the term January 31, 2015 to January 30, 2025.

CARRIED

9. TERMS OF REFERENCE FOR A SAANICH PENINSULA LIQUID WASTE MANAGEMENT PLAN ADVISORY COMMITTEE

T. Robbins spoke to the report.

MOVED by Commissioner Lougher-Goodey, **SECONDED** by Commissioner Windsor,
That the Saanich Peninsula Wastewater Commission approve the terms of reference for a Saanich Peninsula Liquid Waste Management Plan Technical Advisory Committee and direct staff to establish the Committee and send the terms of reference to Municipal Councils, First Nations Band Councils and other agencies, request support and the appointment of a “Technical Representative” as identified in the terms of reference to participate in the Committee and report back to Council and other agencies.

CARRIED

10. SAANICH PENINSULA WASTEWATER STRATEGIC ASSET MANAGEMENT PLAN

P. Sparanese spoke to the report.

MOVED by Commissioner Lougher-Goodey, **SECONDED** by Commissioner Windsor,
That the Saanich Peninsula Wastewater Commission approve, in principle, the long term financial plan presented in the table “Saanich Peninsula Wastewater Service – Proposed 20 yr Financial Plan (2015-2034), June 18, 2015” and direct staff to use the plan as a guide for development of the annual and long term budget, and update the plan as required.

CARRIED

11. SAANICH PENINSULA STORMWATER QUALITY – 2014 ANNUAL REPORT

MOVED by Commissioner Doehnel, **SECONDED** by Commissioner Windsor,
That the Saanich Peninsula Wastewater Commission direct staff to bring forward an item to increase stormwater quality monitoring by a lift of \$10,000, after inflationary consideration, to the 2016 budget meeting for consideration and approval.

CARRIED

MOVED by Commissioner Windsor, **SECONDED** by Commissioner Lougher-Goodey,
That the Saanich Peninsula Wastewater Commission receive the report for information.

CARRIED

12. NEW BUSINESS

2016 Budget – T. Robbins noted that there will be an accelerated budget cycle again this year and staff are currently working on a meeting schedule. Once the schedule is final, the Commission will be advised of the meeting date to review the 2016 budget.

Next Meeting – The next meeting of the Saanich Peninsula Wastewater Commission will be held Thursday, September 17, 2015. The date for the budget meeting will be confirmed in the fall.

13. ADJOURNMENT

MOVED by Commissioner King, **SECONDED** by Commissioner Windsor,
that the Saanich Peninsula Water Commission meeting be adjourned at 11 am.

CARRIED

CHAIR

**REPORT TO THE SAANICH PENINSULA WASTEWATER COMMISSION
MEETING OF THURSDAY, SEPTEMBER 17, 2015**

**SUBJECT SAANICH PENINSULA WASTEWATER DEVELOPMENT COST CHARGES
UPDATE**

ISSUE

This report is provided to the Saanich Peninsula Wastewater Commission as an update regarding the status of the existing development cost charge bylaw and capital expenditures related to the wastewater system.

BACKGROUND

The Saanich Peninsula Wastewater Commission (SPWWC) created a combined water and wastewater Development Cost Charge (DCC) bylaw (Bylaw No. 3208), with the intent of funding growth and capacity related to CRD water and wastewater system improvements in the municipalities of the District of Central Saanich, Town of Sidney and the District of North Saanich.

In 2006 Urban Systems Ltd. completed the latest DCC bylaw study, and the SPWWC approved the revised DCC rates by adopting Bylaw No. 3340, *A Bylaw to Impose Development Cost Charges for the Saanich Peninsula Water and Wastewater Systems*. The 2006 study identified that the pumping stations and conveyance system had 65% excess capacity, and that DCCs would only be required for the future expansion of the Saanich Peninsula wastewater treatment plant (SPWWTP). The cost of the future expansion of the SPWWTP was estimated at \$9,204,976, which was to be funded through the collection of DCCs. Urban Systems Ltd. determined the DCC rates based on the previous estimate that additional capacity would be required in 2012.

At the March 15, 2007 meeting, the SPWWC approved a revision of the DCC rates, now set out in Schedule B (attached). It is normal practice to revisit rates charged based on a system's projected upgrade needs and timelines and be closely associated with changes made to the Regional Growth Strategy and municipal official community plans (OCPs).

In 2013, the CRD retained Stantec Engineering to undertake an asset condition study and capacity review of the Saanich Peninsula wastewater system. The study determined that the conveyance system is adequately sized for foreseeable future wastewater flows, and that the wastewater treatment plant is receiving less flow than originally projected. Using a population growth rate of 1% per annum, and considering the impact of declining water demand, the study estimated that the SPWWTP would reach capacity in 85 years.

It is projected that, at 2015 year end, the DCC account balance will be approximately \$1.5M. Anticipated transfers in from the municipalities for 2015 are anticipated to be \$200,000 and anticipated interest is \$63,000 resulting in a projected 2015 year-end balance of \$1,498,638.

It is proposed to update the wastewater DCC with a study in 2016 at an estimated project cost of \$75,000 for consulting and CRD staff effort. It is also proposed to combine this assignment with the proposed 2016 DCC update for the Saanich Peninsula water system and therefore, hire one consultant in 2016 to complete both DCC updates. The scope of the DCC wastewater study would generally be to assess the status of the completed DCC projects, forecast growth within

the service area based on municipal OCPs, identify and estimate the cost of future DCC projects and timing for construction, and to calculate the DCC rates to fund the DCC projects. It will be important to work closely with municipal staff to establish future growth and development plans.

ALTERNATIVES

Alternative 1

That the Saanich Peninsula Wastewater Commission receive the staff report for information.

Alternative 2

That the Saanich Peninsula Wastewater Commission direct CRD staff to report back at a future meeting with further information.

IMPLICATIONS

Alternative 1 – There is no specific financial implication for the Saanich Peninsula Wastewater Commission by receiving the staff report for information, although this report sets out a plan to update the DCC study, which may result in the DCC rates being adjusted, and the plan would identify any future DCC wastewater system improvement expenditures.

Alternative 2 - There is no specific financial implication for the Saanich Peninsula Wastewater Commission by not receiving the staff report and requesting the CRD to report back at a future meeting with more information.

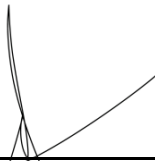
CONCLUSION

Currently, DCCs are being collected for future expansion of the SPWWTP when required. The last time the DCC bylaw was reviewed and revised was in 2006. It is good practice to review the DCC bylaw on a regular interval to adjust to changes in municipal OCPs, growth rates and system capacity requirements, and adjust the bylaw accordingly.

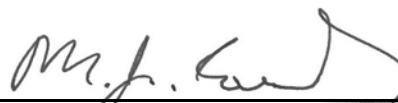
It is proposed in 2016 to update the DCC wastewater study for \$75,000, in conjunction with the water DCC study, by hiring one consultant to complete a combined assignment. It is proposed to fund this assignment from the existing DCC account, which is projected to consist of \$1.50M at the end of 2015.

RECOMMENDATION

That the Saanich Peninsula Wastewater Commission receive the staff report for information.



Dale Puskas, P.Eng
Acting Manager, Wastewater Engineering
and Planning



Malcolm Cowley, P.Eng.
Senior Manager, Infrastructure Engineering
Concurrence



Ted Robbins, BSc, C.Tech.
General Manager, Integrated Water Services
Concurrence

DP:mm

Attachment: Bylaw No. 3208



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**CAPITAL REGIONAL DISTRICT (CRD)
BYLAW NO. 3208**

(As amended by Bylaw No. 3340)

**Saanich Peninsula Water and Wastewater Development Cost Charges
Bylaw No. 1, 2004**

*Consolidated version authorized in accordance with Bylaw No. 3014,
CRD Consolidation Authorization Bylaw No. 1, 2002*

***A BYLAW TO IMPOSE DEVELOPMENT COST CHARGES FOR THE
SAANICH PENINSULA WATER AND WASTEWATER SYSTEMS***

Contacts:

For Water DCCs: Scott Mason at 250.474.9665
For Wastewater DCCs: Craig Gottfred at 250.474.9620
Integrated Water Services
Capital Regional District
479 Island Highway
Victoria, BC

CAPITAL REGIONAL DISTRICT

BYLAW NO. 3208

A BYLAW TO IMPOSE DEVELOPMENT COST CHARGES FOR THE SAANICH PENINSULA WATER AND WASTEWATER SYSTEMS

WHEREAS:

- A. Under section 933 of the *Local Government Act*, the District may impose development cost charges for the purpose of providing funds to assist the District to pay the capital costs of providing, constructing, altering or expanding water and wastewater facilities;
- B. The development cost charges established by this bylaw will be used for the purpose of providing funds to assist the District to pay the capital costs of providing, constructing, altering or expanding the District water and wastewater systems that service the Member Municipalities;
- C. In setting the development cost charges under this bylaw, the Board has considered the future land use patterns and development, and the phasing of works and services within the Service Areas;
- D. The Board is of the opinion that the development cost charges imposed by this bylaw:
 - (a) are not excessive in relation to the capital costs of prevailing standards of service;
 - (b) will not deter development;
 - (c) will not discourage the construction of reasonably priced housing or the provision of reasonably priced serviced land;

within the Service Areas.

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

1.0 DEFINITIONS

In this bylaw, unless the context otherwise requires:

"Apartment Residential" includes any dwelling unit which is or will be situated in any building or structure that consists of or will consist of at least two floors containing four or more dwelling units, other than dwelling units that are townhouse residential.

"Approving Officer" means the person appointed under the *Land Title Act* within a Member Municipality to perform the duties and responsibilities of that position.

"Board" means the Board of the District.

"Building Permit" means any permit authorizing the construction, alteration or extension of a building or structure in a Member Municipality.

"Commercial" means land zoned for commercial uses under a zoning bylaw enacted by a Member Municipality.

"Comprehensive Development" means a development that is comprised of two or more of the following uses: Apartment Residential, Commercial, Institutional, Industrial and Townhome Residential.

"Council" means the elected council of a Member Municipality.

"Developer" means a person liable to pay development cost charges under this bylaw.

"Development Cost Charges" or "DCC" means the applicable rates prescribed in Schedule "B".

"District" means the Capital Regional District.

" Dwelling Unit" or "Unit" means a room, a suite of rooms or a building or structure that is used or intended to be used as a self-contained private residence for one household that may contain eating, living, sleeping and sanitary facilities and excludes a secondary suite.

"Gross Floor Area" means 80% of the total area of all floors in a building measured to the outside surface of the exterior walls, but excluding areas provided for parking of motor vehicles and storage of bicycles.

"Industrial" means land zoned for industrial uses under a zoning bylaw enacted by a Member Municipality.

"Institutional" means any development providing for the assembly of persons for religious, charitable, philanthropic, cultural, civic or recreational purposes, including but not limited to auditoriums, private schools, youth centres, child care centres, hospitals, social halls, group camps and churches.

"Member Municipality" means the District of Central Saanich, Town of Sidney and District of North Saanich.

"Municipal Charges" means development cost charges imposed by a bylaw of a Member Municipality.

"Saanich Peninsula Water System" means the system of water supply mains, pump stations and water storage facilities that service the Member Municipalities under the authority of letters patent dated December 22, 1976, revised September 27, 1984, and amended supplementary letters patent dated April 27, 1978 and March 19, 1986.

"Saanich Peninsula Wastewater System" means the system of District trunk sewers, pump stations and wastewater treatment and disposal facilities that service the Member Municipalities under the authority of CRD Bylaw No. 2388.

"Secondary Suite" has the same meaning as under the British Columbia Building Code, 1998.

"Service Area" means the areas located within the Member Municipalities that are subject to this bylaw, as described in Schedule "A" to this bylaw.

"Single Family Residential" includes any Parcel resulting from any Subdivision which is used or may be used for a single building or structure containing up to three dwelling units.

"Small Lot Single Family Residential" means land zoned for single family residential uses under the R-1S and R-1Z zones in the District of Central Saanich and the R1.2 zone in the Town of Sidney.

"Townhouse Residential" includes any dwelling unit which is or will be situated in any building or structure on a parcel containing four or more dwelling units and which has a principal entrance which provides direct outdoor access at or from ground level.

2.0 DEVELOPMENT COST CHARGES

2.1 A person who obtains in a Member Municipality:

- (a) approval of subdivision; or
- (b) issuance of a building permit

shall pay, in accordance with sections 2.3, 2.4 and 2.5, the applicable development cost charges set out in this bylaw to that Member Municipality on behalf of the District, at the time of the approval of the subdivision or the issuance of the building permit, as required under Schedule "B".

2.2 Development cost charges shall not be payable under this bylaw if:

- (a) the development does not impose new capital cost burdens on the District for water or wastewater facilities.
- (b) a development cost charge for water or wastewater facilities has previously been paid for the same development unless, as a result of further development, new capital cost burden will be imposed on the District.
- (c) the building permit authorizes the construction, alteration or extension of a building or structure or a part of a building or structure that is or will be after the construction, alteration or extension exempt from taxation under section 339(1)(g) of the *Local Government Act*.

2.3 Development cost charges imposed under this bylaw shall be calculated in accordance with the rates prescribed in Schedule "B".

2.4 In the case of a comprehensive development, development cost charges shall be calculated separately for each use that is part of that comprehensive development, in accordance with Schedule "B", and the developer shall pay the sum total of the development cost charges calculated for each separate use.

2.5 The development cost charges under this bylaw may not be paid by instalments unless permitted by a regulation under the *Local Government Act*.

3.0 COLLECTION AND REMITTANCE OF DEVELOPMENT COST CHARGES

3.1 Each Member Municipality shall collect the development cost charges imposed on a development under this bylaw at the applicable time set out in Schedule "B".

3.2 A Member Municipality shall not approve a subdivision or issue a building permit for any development unless the development cost charges imposed under this bylaw have been paid in accordance with Section 2.0.

3.3 Each Member Municipality shall establish and maintain a separate account for the DCC monies collected under this bylaw and deposit and hold these monies in that separate account until the DCC monies are remitted to the District. The District shall establish and maintain a separate account for the DCCs remitted by the Member Municipalities.

3.4 Within 30 days of the first business day of each month, each Member Municipality shall remit to the District the total amount of the development cost charges collected by the Member Municipality during the previous month.

4.0 AUTHORIZATION

The District may prescribe any form, statement, notice, practice, procedure or other administrative requisites required under this bylaw, after consultation with the Member Municipalities.

5.0 SEVERABILITY

If any portion of this bylaw is held to be invalid by a court of competent jurisdiction, the invalid portion shall be severed and the remainder of the bylaw shall be deemed to have been enacted without the invalid portion.

6.0 EFFECTIVE DATE

This bylaw shall come into effect thirty days after the date of final adoption of this bylaw.

7.0 GENERAL

7.1 The following schedules attached to this bylaw form an integral part of this bylaw and are enforceable in the same manner as this bylaw:

- (a) Schedule A – Area of Application
- (b) Schedule B – Amount of Water and Wastewater Development Cost Charges

7.2 Subject to the provisions of Section 2.2, this bylaw applies to all applications for subdivision and for issuance of a building permit for parcels located in any of the Service Areas.

7.3 Bylaw No. 2569 cited as "Capital Regional District Sewage Facilities Development Cost Charge Bylaw No. 1, 1998" and Bylaw No. 472 cited as "Development Cost Charges Bylaw, 1978" as amended are hereby repealed.

7.4 This bylaw may be cited for all purposes as the "Saanich Peninsula Water and Wastewater Development Cost Charges Bylaw No. 1, 2004".

READ A FIRST TIME THIS	29 th	day of	September	2004
READ A SECOND TIME THIS	29 th	day of	September	2004
READ A THIRD TIME THIS	29 th	day of	September	2004
APPROVED BY THE INSPECTOR OF MUNICIPALITIES THIS	22 nd	day of	April	2005
ADOPTED THIS	27 th	day of	April	2005

Don Amos _____
CHAIR

Carmen Thiel _____
SECRETARY

This Bylaw is a copy of Bylaw 3208, *Saanich Peninsula Water and Wastewater Development Cost Charges Bylaw No. 1, 2004*, consolidated under section 139 of the *Community Charter* and is printed on the authority of the Corporate Officer of the CRD.



Sonia Santarossa, Corporate Officer

SCHEDULE "A"

SAANICH PENINSULA WATER AND WASTEWATER SYSTEM

DEVELOPMENT COST CHARGES

1. AREA OF APPLICATION FOR WATER DEVELOPMENT COST CHARGES

This Bylaw shall apply to, and water development cost charges provided in this Bylaw shall be imposed and collected within, the following areas:

- (a) **Town of Sidney** – the Town of Sidney; and
- (b) **District of Central Saanich** – the District of Central Saanich served by the Saanich Peninsula Water System excluding the East Saanich Indian Reserve 2 (Tsawout First Nation) and the South Saanich Indian Reserve 1 (Tsartlip First Nation); and
- (c) **District of North Saanich** – the District of North Saanich serviced by the Saanich Peninsula Water System excluding the Cole Bay Indian Reserve 3 (Pauquachin First Nation) and Union Bay Indian Reserve 4 (Tseycum First Nation).

2. AREA OF APPLICATION FOR WASTEWATER DEVELOPMENT COST CHARGES

This Bylaw shall apply to, and wastewater development cost charges provided in this Bylaw shall be imposed and collected within, the following areas:

- (a) **Town of Sidney** – the Town of Sidney serviced by the Saanich Peninsula Wastewater System excluding the area lying within the boundaries of the Victoria Airport Authority; and
- (b) **District of Central Saanich** – the District of Central Saanich serviced by the Saanich Peninsula Wastewater System excluding the East Saanich Indian Reserve 2 (Tsawout First Nation) and the South Saanich Indian Reserve 1 (Tsartlip First Nation); and
- (c) **District of North Saanich** – the District of North Saanich serviced by the Saanich Peninsula Wastewater System excluding the Cole Bay Indian Reserve 3 (Pauquachin First Nation) and Union Bay Indian Reserve 4 (Tseycum First Nation) and the area lying within the boundaries of the Victoria Airport Authority.

SCHEDULE "B"

(Bylaw 3340)

**SAANICH PENINSULA WATER AND WASTEWATER
DEVELOPMENT COST CHARGES**

1. AMOUNT OF WATER DEVELOPMENT COST CHARGES

Water development cost charges will be based upon the following:

<u>Land Use Designation</u>	<u>DCC Rate</u>	<u>When Payable</u>
1. Single Family Residential	\$1,555.00 per dwelling unit	Subdivision approval
2. Small Lot Single Family	\$1,100.00 per dwelling unit	Subdivision approval
3. Townhouse Residential	\$1,100.00 per dwelling unit	Building permit approval
4. Apartment Residential	\$957.00 per dwelling unit	Building permit approval
5. Commercial	\$7.04 per m ² gross floor area	Building permit approval
6. Industrial	\$3.81 per m ² gross floor area	Building permit approval
7. Institutional	\$4.35 per m ² gross floor area	Building permit approval

2. AMOUNT OF WASTEWATER DEVELOPMENT COST CHARGES

Wastewater development cost charges will be based upon the following:

<u>Land Use Designation</u>	<u>DCC Rate</u>	<u>When Payable</u>
1. Single Family Residential	\$1,608.00 per dwelling unit	Subdivision approval
2. Small Lot Single Family Residential	\$1,295.00 per dwelling unit	Subdivision approval
3. Townhouse Residential	\$1,295.00 per dwelling unit	Building permit approval
4. Apartment Residential	\$869.00 per dwelling unit	Building permit approval
5. Commercial	\$3.73 per m ² gross floor area	Building permit approval
6. Industrial	\$3.43 per m ² gross floor area	Building permit approval
7. Institutional	\$4.72 per m ² gross floor area	Building permit approval

**REPORT TO SAANICH PENINSULA WASTEWATER COMMISSION
MEETING OF THURSDAY, SEPTEMBER 17, 2015**

SUBJECT SAANICH PENINSULA WASTEWATER TREATMENT – CURRENT SOLUTIONS AND CONTINGENCIES AND FUTURE OPTIONS FOR SLUDGE DISPOSAL, BIOSOLIDS PRODUCTION AND USE AND POSSIBLE ENERGY PRODUCTION ALTERNATIVES

ISSUE

To inform the Saanich Peninsula Wastewater Commission (Commission) of current contingencies and future options for Saanich Peninsula Wastewater Treatment Plant sludge disposal, biosolids production and use and possible energy production alternatives.

BACKGROUND

At the April 16, 2015 Commission meeting, the *Saanich Peninsula Wastewater Treatment Plant – Biosolids History and Operation* staff report was presented. The following motion was approved at that meeting:

“That the Saanich Peninsula Wastewater Commission direct staff to prepare a contingency with regard to options, and include those options that may require a change in policy by the CRD Board. “

Based on a review of available information, there are basically three options that could be considered for addressing treatment process residuals from the Saanich Peninsula Saanich Peninsula Wastewater Treatment Plant (SPWWTP) which are categorized as follows:

1. Sludge Disposal – disposing untreated, dewatered sludge at a landfill or sludge receiving and processing facility
2. Biosolids Production – producing fertilizer/soil conditioner for land application
3. Fuel Production and Energy Recovery – utilizing sludge or biosolids to produce a fuel source for energy production or other commercial uses and increasing beneficial use by recovering energy through production process

1. Sludge Disposal

Sludge disposal is the current method that the SPWWTP uses to dispose of its sludge. The untreated sludge is dewatered and hauled to the Hartland Landfill for disposal. The SPWWTP currently produces approximately 3,600 tonnes of sludge annually.

2. Biosolids Production

Biosolids produced from sludge can be land applied as a fertilizer or soil conditioner for both agricultural and non-agricultural purposes. Agricultural applications can include both human and/or animal crop production lands. Non-agricultural applications can include forestry, land reclamation and/or horticultural and landscaping uses. Land application of biosolids typically requires sludge treatment and processing to produce a Class “A” biosolid in accordance with the Organic Matter Recycling Regulation of BC (OMRR) regulations. Class “A” biosolids can be produced through several different processes including anaerobic digestion, in-vessel

composting, or through heat pasteurization and lime stabilization, as previously used at the SPWWTP and noted in the April 16, 2015 report to the Commission. Depending on the production method, methane gas produced during the process can be captured, cleaned and injected into the gas utility or can generate power via natural gas generators.

The land application of biosolids will require a change to the current CRD Board policy that bans production and land application of biosolids.

3. Fuel Production and Energy Recovery

Wastewater sludge can be dried and processed to create a fuel product. The fuel can then be beneficially used in many different applications to create heat, electricity or other marketable uses. Typical energy recovery facilities that can use dried sludge as a fuel include incinerators (ie. waste-to-energy facilities), gasifiers, and cement kilns.

DISCUSSION

The SPWWTP currently produces approximately 3,600 tonnes of sludge annually. Due to the relatively small quantity of sludge currently produced by the SPWWTP, there would be concern with the viability of acquiring the necessary land, constructing the necessary infrastructure and operating most of the above referenced processes efficiently and cost effectively.

The following table summarizes some key points to consider in evaluation of the three sludge disposal options for the SPWWTP.

Disposal Option	Change to CRD Policy	Scale *	Capital Cost to implement	Production costs (in 2015)	Environmental Perception/Concerns	Market Condition Risks
Sludge Disposal	No	Yes	\$0	\$132/tonne	No	No (CRD owns the landfill)
Biosolids Production for land application	Yes	Possible	\$1-2M	\$450-500/tonne	Yes	Yes – reliant on a market
Fuel Production and Energy Recovery	No	No	Significant	Significant	Possible (emissions/air quality)	Yes – reliant on a market

* Does quantity produced at the SPWWTP suit this option

All options for sludge or biosolids disposal ultimately require a market for the end product; the least risk option with respect to changing conditions is to dispose of SPWWTP sludge at Hartland landfill because the landfill is in the care and control of the CRD.

Environmental Perception/Future Concerns

Monitoring and testing techniques for organic and emerging contaminants within biosolids for land application are relatively new. Limits for organic contaminants in biosolids land application are relatively uncommon, but research is ongoing as new contaminants are identified and

prioritized based upon environmental and human impacts. The resulting updates to OMRR may affect the ability for land application of biosolids.

Sludge disposal is dependent on the life span of the landfill. Current estimates on the lifespan of Hartland are in the range of 25-30 years. Currently, there is no plan to site another landfill within the CRD. Typically, as a landfill nears its end of life, tipping fees are increased in an effort to reduce the amount of waste being dumped. This practice is anticipated to happen at the Hartland landfill and there could be a point where the disposal cost of sludge at Hartland will be equivalent to the production costs of a Class 'A' biosolid.

As noted in the April 16, 2015 report to the Commission, based on the current work plan for the Core Area Wastewater Treatment Program, it is anticipated that by the end of December 2015 (or by March 2016 at the latest), a new Program plan will be presented to the CRD Board that will include a solution for residuals management. Staff will continue to ensure that the incorporation of sludge from the SPWWTP remains a consideration in the Core Area project as new solutions are being developed.

Short Term and Long Term Solutions and Contingencies for the SPWWTP Sludge Management

Based upon the current situation at the SPWWTP and across the CRD, the following short term and long term plan and contingencies are currently guiding the operation:

1. Short term solution (current): Dispose untreated, dewatered sludge at Hartland Landfill
2. Short term contingency if Hartland Landfill becomes unworkable: Investigate sludge disposal options at other approved landfill or sludge receiving facilities on Vancouver Island or on the Lower Mainland.
3. Long term solution: Partner with the Core Area Wastewater Treatment Program's residuals management solution (expected to be operation by 2023/2024).

ALTERNATIVES

Alternative 1

That the Saanich Peninsula Wastewater Commission receive the staff report for information.

Alternative 2

That the Saanich Peninsula Wastewater Commission receive the staff report for information and request additional information from CRD staff.

IMPLICATIONS

Alternative 1 – Should this alternative be chosen, no further action will be taken at this time. CRD staff will prepare a follow-up staff report when the Core Area Wastewater Treatment Program has further developed potential solutions for residuals management.


Alternative 2 – Staff will receive direction from the Commission and respond accordingly.

CONCLUSION

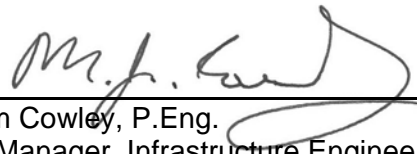
The SPWWTP has previously produced Class 'A' biosolids for land application. A CRD Board policy to ban land application of biosolids resulted in the SPWWTP discontinuing Class 'A' biosolids production. Based on the available information on various sludge disposal and management options, the current short term solution continues to be landfilling untreated, dewatered sludge at the Hartland Landfill. The most viable long term solution continues to appear to be partnering with the Core Area Wastewater Treatment Program's residuals management solution that is expected to be in operation by 2023/2024. Once there is further direction on the Core Area Program plan with respect to residuals management, staff can provide a report to the Commission so that next steps can be considered.

RECOMMENDATION(S)

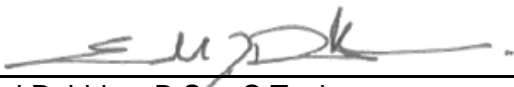
That the Saanich Peninsula Wastewater Commission receive the staff report for information.



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**REPORT TO THE SAANICH PENINSULA WASTEWATER COMMISSION
MEETING OF THURSDAY, SEPTEMBER 17, 2015**

SUBJECT **RENEWAL OF WASTEWATER SERVICE AGREEMENT WITH THE
INSTITUTE OF OCEAN SCIENCES, PAUQUACHIN FIRST NATION AND
TSEYCUM FIRST NATION**

ISSUE

To update the Saanich Peninsula Wastewater Commission on the progress on renewal of the service agreements for receiving and disposal of wastewater from the Ocean Sciences Centre (IOS), Pauquachin First Nation (Pauquachin) and Tseycum First Nation (Tseycum).

BACKGROUND

The wastewater from the Institute of Ocean Sciences, Pauquachin First Nation and Tseycum First Nation flows into the Victoria Airport Authority (VAA) wastewater system, then into the Town of Sidney system, then into the Saanich Peninsula Wastewater system. In 2000, the VAA, IOS and the First Nations entered into a wastewater service agreement with the Capital Regional District (CRD), with a 15 year term with the option of two consecutive five year extensions. In 2014, the VAA-CRD agreement was amended to define the original date of commencement as January 30, 2000, with an expiration date of January 30, 2015. The Saanich Peninsula Wastewater Commission recently approved a 10-year agreement extension.

Additionally, VAA has separate servicing agreements with IOS, Pauquachin First Nation and Tseycum First Nation to receive and convey their wastewater through the VAA system to the CRD Saanich Peninsula wastewater system.

The IOS, Pauquachin and Tseycum agreements also expired on January 30th, 2015. Renewal of the IOS, Pauquachin and Tseycum agreements, based upon the VAA agreement amendments including the amendment of the extension term from 5 years to 10 years, have been sent to their respective representatives for comment. Staff will bring the agreements to the Commission for approval and direction to execute as soon as possible.

ALTERNATIVES

Alternative 1

That the Saanich Peninsula Wastewater Commission receive the staff report for information; or

Alternative 2

That the Saanich Peninsula Wastewater Commission receive the staff report for information and request additional information from staff.

IMPLICATIONS

Alternative 1 – Staff will continue to coordinate with IOS, the Pauquachin and Tseycum to produce final copies of the amendments for the Commission's consideration.

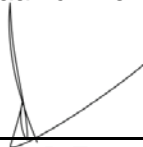
Alternative 2 – Staff return with a staff report at the next Commission meeting addressing the information requests.

CONCLUSION

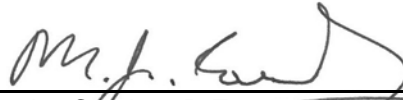
The CRD has had a successful wastewater service agreement with the Institute of Ocean Sciences, Pauquachin First Nation and Tseycum First Nation without issue since the construction of the Saanich Peninsula Wastewater system in 2000. There remains a good relationship with the participants, with no negative impacts resulting from the sewer flows into the Saanich Peninsula system.

RECOMMENDATION

That the Saanich Peninsula Wastewater Commission receive the staff report for information.



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