



SAANICH PENINSULA WASTEWATER COMMISSION

Notice of Meeting on **Thursday, July 16, 2020 at 9 a.m.**

Meeting Room #6 Greenglade Community Centre, 2151 Lannon Way, Sidney BC

For members of the public who wish to listen to the meeting via telephone please call 1-833-353-8610 and enter the Participant Code 1911461 followed by #. You will not be heard in the meeting room but will be able to listen to the proceedings.

P. Wainwright (Chair)	D. Kelbert	G. Orr	R. Windsor
R. Barnhart (Vice Chair)	Z. King	M. Weisenberger	
M. Doehnel	C. McNeil-Smith	M. Williams	

AGENDA

1. APPROVAL OF AGENDA

2. ADOPTION OF MINUTES 3

Recommendation: That the minutes of the June 18, 2020 meeting be adopted.

3. APPROVAL OF RESOLUTION

1. That this resolution applies to the Saanich Peninsula Wastewater Commission for the meetings being held between July1, 2020 and December 31, 2020.
2. That the attendance of the public at the place of the meeting cannot be accommodated in accordance with the applicable requirements or recommendations under the *Public Health Act*, despite the best efforts of the Saanich Peninsula Wastewater Commission, because:
 - a. The available meeting facilities cannot accommodate more than (8) people in person, including members of the Saanich Peninsula Wastewater Commission and staff, and
 - b. There are no other facilities presently available that will allow physical attendance of the Saanich Peninsula Wastewater Commission and the public in sufficient numbers; and
3. That the Saanich Peninsula Wastewater Commission is ensuring openness, transparency, accessibility and accountability in respect of the open meeting by the following means:
 - a. By allowing the public to hear or participate via teleconference or electronic meeting software,
 - b. By providing notice of the meeting in newspaper or local notice Board, including the methods for providing written or electronic submissions,
 - c. By making the meeting agenda, as well as the other relevant documents, available on the CRD website, and directing interested persons to the website by means of the notices provided in respect of the meeting,
 - d. By strongly encouraging the provision of, and subsequently receiving and distributing to members, written correspondence from the public in advance of the meeting, and
 - e. By making the minutes of the meeting available on the CRD website following the meeting.

Recommendation: That the Saanich Peninsula Wastewater Commission adopt the resolution as presented.

To ensure a quorum, advise Denise at 250.360.3087 if you or your alternate cannot attend.

4. CHAIR'S REMARKS

5. PRESENTATIONS/DELEGATIONS

Presentations and delegations will be permitted to speak to an agenda item via phone-in participation.

You can make a request online at www.crd.bc.ca/about/board-committees/addressing-the-board, a printable form is also available. Requests must be received no later than 4:30 p.m. two calendar days prior to the meeting.

Written submissions are still encouraged.

6. COMMISSION BUSINESS

6.1. EEP 20-32 Management of Saanich Peninsula Wastewater Residual Solids 6

***Recommendation:** That the Saanich Peninsula Wastewater Commission direct staff to prepare its 2021 budget with the intent to haul residual solids to the Hartland Residual Solids Treatment Facility for processing and beneficial reuse.*

7. NEW BUSINESS

8. ADJOURNMENT

Next Meeting: October 15, 2020



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MINUTES OF A MEETING OF THE Saanich Peninsula Wastewater Commission
Held Thursday, June 18, 2020 in the Saanich Peninsula Wastewater Treatment Plant Meeting Room, 9055 Mainwaring Road, North Saanich, BC

PRESENT: Commissioners: P. Wainwright (Chair); R. Barnhart (Vice Chair); M. Doehnel
Electronic: D. Kelbert; C. McNeil-Smith; M. Williams; R. Windsor

Staff: T. Robbins, General Manager, Integrated Water Services; P. Kickham, Environmental Regulations, Environmental Protection; D. Dionne (recorder)

Electronic: I. Jesney, Senior Manager, Infrastructure Engineering; M. Cowley, Manager, Wastewater Engineering & Planning

ABSENT: Z. King; G. Orr; M. Weisenberger

ALSO PRESENT: M. Underwood (electronic)

The meeting was called to order at 9:25 a.m.

1. APPROVAL OF AGENDA

MOVED by Commissioner Barnhart, **SECONDED** by Commissioner Doehnel, That the June 18, 2020 Agenda be approved as circulated.

CARRIED

2. ADOPTION OF MINUTES

MOVED by Commissioner Barnhart, **SECONDED** by Commissioner Doehnel, That the minutes of the March 19, 2020 meeting be adopted.

CARRIED

3. CHAIR'S REMARKS

Chair Wainwright made no remarks.

4. PRESENTATIONS/DELEGATIONS

There were no presentations or delegations.

5. GENERAL MANAGER'S REPORT

T. Robbins advised that a tour of the Residuals Treatment Facility site at Hartland Landfill is being planned for the Capital Regional District (CRD) Board for Friday, June 26. The invitation is extended to this Commission and staff will follow up with an email outlining the details of the tour.

5.1. Essential Wastewater Service Delivery – COVID-19 (Verbal)

T. Robbins reported the following:

- Integrated Water Service (IWS) staffing levels have not been impacted by COVID-19, and staff have continued to deliver the operating, maintenance and capital programs.
- No significant supply chain issues.

- Staff are tracking incremental costs of implementing COVID-19 protocols and procedures. The costs are not material in terms of direct impact on the operating budget.
- No significant changes in revenue or collections due to COVID-19.
- The Emergency Operations Center is now operating at level one.
- In accordance with the provincial phase two restart approach and WorkSafe BC requirements, the Capital Regional District (CRD) is finalizing its COVID-19 safety plan for the office environment.

MOVED by Commissioner Doehnel, **SECONDED** by Commissioner Barnhart,
That the COVID-19 Essential Services Preparation verbal report be received for information.

CARRIED

6. COMMISSION BUSINESS

6.1. EEP 20-19 Saanich Peninsula Liquid Waste Management Plan Audit

P. Kickham introduced the report, he noted that the audit was completed in 2019 and in general the majority of commitments have been met and that this is the initial step in looking at reviewing and rewriting the Liquid Waste Management Plan in 2021/2022.

Chair Wainwright noted that the report outlined some non-compliance components and that some of the responsible municipalities were not aware of the non-compliance issues in their jurisdictions.

Discussion ensued related to:

- Writing to councils to request a response to the audit
- Ensure councils are informed of the non-compliance issues noted within the Liquid Waste Management Plan Audit report.
- Staff advised that the CRD would be striking a Technical Advisory Committee with representation from the municipalities.
- Involve the Airport Authority and the Institute of Oceanography

MOVED by Commissioner McNeil-Smith, **SECONDED** by Commissioner Windsor,
That the Saanich Peninsula Wastewater Commission directs staff to prepare a letter on behalf of the Commission, to the Saanich Peninsula member Councils and First Nations, to inform them of the non-compliance issues noted within the Liquid Waste Management Plan Audit report and to request that each Council report back to the Commission with their response to the non-compliance issues within six months.

CARRIED

MOVED by Commissioner Doehnel, **SECONDED** by Commissioner Barnhart,
That the Saanich Peninsula Wastewater Commission receive this report for information.

CARRIED

6.2. EEP 20-20 Saanich Peninsula Wastewater - Inflow & Infiltration Update

P. Kickham introduced the report as presented.

Chair Wainwright responded that it is important to keep on top of Inflow and Infiltration (I&I) to maintain plant capacity and not have increased flow. The development of I&I Management Plans for the Saanich Peninsula needs to be collaborative with the municipalities, First Nations and federal government.

9:51 R. Windsor left the meeting

Staff responded to questions regarding:

- I&I education
- CRD is providing an analysis of areas of concern for each jurisdiction it is up to the municipalities to prioritize accordingly

Chair Wainwright advised that currently I&I doesn't interfere with plant operation but that it is important to manage in the long term.

MOVED by Commissioner Barnhart, **SECONDED** by Commissioner Doehnel, That the Saanich Peninsula Wastewater Commission direct staff to budget \$41,000 in the service's 2021 operating budget for the next step in developing Inflow & Infiltration (I&I) Management Plans for the Saanich Peninsula municipalities to help them meet their I&I commitments in the Saanich Peninsula Liquid Waste Management Plan.

CARRIED

7. NEW BUSINESS

There was no new business.

8. ADJOURNMENT

MOVED by Commissioner Doehnel, **SECONDED** by Commissioner Barnhart, That the Saanich Peninsula Wastewater Commission meeting be adjourned at 10:02 a.m.

CARRIED

Chair

Secretary



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EEP 20-32

REPORT TO SAANICH PENINSULA WASTEWATER COMMISSION MEETING OF THURSDAY, JULY 16, 2020

SUBJECT **Management of Saanich Peninsula Wastewater Residual Solids**

ISSUE SUMMARY

To provide an update on short-term options for the management of Saanich Peninsula Wastewater Treatment Plant (SPWWTP) wastewater residuals (sludge).

BACKGROUND

The Saanich Peninsula Liquid Waste Management Plan (LWMP) committed the Capital Regional District (CRD) and its participating member municipalities to:

- *Set as an objective the beneficial use of SPWWTP biosolids, and application to peninsula farmland as the primary option for beneficial use.*

This commitment was initially met via the production of Class A biosolids, which were beneficially used in accordance with the provincial Organic Matter Recycling Regulation (OMRR) as a soil amendment on large Saanich Peninsula farms. The Class A biosolids were also blended into a soil product that was used as cover in the reclamation of Producer's Pit in Colwood, and made available in smaller quantities to residential customers under the Pengrow label.

On July 13, 2011, the CRD Board passed a motion to protect local farmland and to harmonize sewage treatment strategies within the CRD, banning the production of biosolids at CRD regional facilities, including the SPWWTP, and the land application of Class A biosolids within the CRD. This motion was reaffirmed by the CRD Board on October 30, 2013.

The SPWWTP ceased production of Class A biosolids by the end of 2011 and, since then, has disposed of all residual solids as controlled waste at the Hartland Landfill (approximately 4,000 tonnes in 2019). Alternative beneficial reuse options for SPWWTP wastewater residuals were explored at the time, but none were identified that are compliant with the Board motion. As such, the CRD contacted the BC Ministry of Environment and Climate Change Strategy (ENV) in July 2012 proposing an amendment to the LWMP that would allow for the interim disposal of all SPWWTP wastewater residuals at the Hartland Landfill while continuing to look for alternative beneficial reuse opportunities and to consider harmonization with the CRD's Core Area Wastewater Treatment Project biosolids management strategy.

The Core Area Wastewater Treatment Project includes the construction of a residuals treatment facility (RTF) at the Hartland Landfill. The RTF is being built to produce Class A biosolids from the wastewater residuals that will be generated from the new McLoughlin Point Wastewater Treatment Plant. The RTF also has capacity to accept wastewater residuals from other CRD facilities, including the SPWWTP. In the short-term (i.e., three to five years), the RTF biosolids will be beneficially reused as an alternative fuel source at a cement kiln in the lower mainland, and on a contingency basis, as a beneficial soil amendment or engineered cover at the Hartland Landfill. A long-term plan (>5years), including options analysis for RTF Biosolids, will be developed as quickly as possible.

Determining appropriate tipping fees for RTF handling of residual solids from other CRD facilities is challenging due to variability and uncertainty regarding the estimated per tonne cost to produce and beneficially reuse biosolids at the RTF. An acceptable degree of uncertainty regarding these costs will only be available once stable RTF operations have been established. Primary sources of uncertainty include estimates for anaerobic digester solids reduction volumes, dried biosolids beneficial reuse costs, and timing of future plant expansion. These are important factors for determining tipping fees and will be established over a three-year performance period from 2021-2023.

Despite this uncertainty, the cost for RTF production and beneficial reuse of Class A biosolids will be significantly higher than the current cost for disposal of untreated residuals at Hartland Landfill (annual cost estimated at \$900,000 based on \$225 x 4,000 tonnes, excluding sludge transportation costs from the SPWWTP to RTF). Staff have determined that a range of likely costs associated with RTF operation and beneficial reuse is between \$225 and \$300 per tonne for Saanich Peninsula residual solids. In the interim, staff are recommending a fee of \$225/tonne for processing of dewatered residual solids (Annual cost estimated at \$900,000 based on \$225 x 4,000 tonnes, excluding sludge transportation costs from the SPWWTP to RTF, compared to current annual cost of \$484,000 based on \$121 x 4,000 tonnes). However, this fee will need to be endorsed by the Core Area Liquid Waste Management Committee and approved by the Board, and would be revised according to data collected over the performance period.

As an alternative to the RTF, the SPWWC could direct staff to explore sub-regional processing and beneficial reuse of residual solids produced at the SPWWTP. As previously reported to the SPWWC, significant capital upgrades would be required. The CRD would retain a consultant to prepare sub-regional options, then preliminary design and conceptual cost estimates to compare to utilizing the RTF.

ALTERNATIVES

Alternative 1

That the Saanich Peninsula Wastewater Commission direct staff to prepare the 2021 service operating budget with the intent to haul residual solids to the Hartland Residual Solids Treatment Facility for processing and beneficial reuse.

Alternative 2

That the Saanich Peninsula Wastewater Commission direct staff to prepare the 2021 service operating budget with the intent to haul residual solids to the Hartland Residual Solids Treatment Facility for processing and beneficial reuse, and direct staff to evaluate options for sub-regional processing and disposal/beneficial reuse of the SPWWTP residual solids.

IMPLICATIONS

Environmental & Climate Implications

Beneficial use of biosolids has many positive climate implications (e.g., displacing coal as fuel in cement kilns, promoting plant growth for carbon sequestration and methane capture of landfill gas). Sub-regional management of biosolids would require land and capital upgrades including dryers to process SPWWTP residual solids which would result in a carbon footprint increase over

and above Alternative 1 (due to additional land, equipment, energy and trucking for a sub-regional system).

Several CRD residents and directors have expressed concern regarding potential environmental risk of beneficial use applications of biosolids at Hartland Landfill on a short-term contingency basis. Staff are of the opinion that the environmental programs for the landfill coupled with the relative benign nature of Class A biosolids render this risk negligible. To confirm this, the Hartland environmental monitoring program is being expanded to ensure biosolids related contaminants of concern are explicitly evaluated.

Intergovernmental Implications

Components of the Core Area Wastewater Treatment Project included obtaining regulatory approvals and completing public and First Nations engagement for the beneficial reuse of biosolids generated at the RTF. Sub-regional biosolids management would require consultation with regulatory agencies, municipalities, First Nations and local communities adjacent or affected by any proposed sub-regional RTF facility. It is anticipated that in 2021, when the RTF is in operation, the BC Ministry of Environment and Climate Change Strategy will require beneficial reuse of residual solids from the SPWWTP, even if there is a short term and long term strategy proposed in order to fulfill the LWMP commitment.

Financial Implications

The SPWWTP currently disposes residual solids at Hartland Landfill at a cost of \$121/tonne. For Alternative 1, to treat and beneficially reuse residual solids as a fuel substitute, the proposed rate is \$225/tonne for dewatered solids (>20% solids content). The fee would cover beneficial reuse of SPWWTP residual solids until definitive costs associated with RTF biosolids processing can be determined. After evaluating the performance period ending 2023, fees will be adjusted based on the actual cost for biosolids production and beneficial reuse.

The SPWWTP would have to make significant capital investments to recommence production of Class A biosolids. The existing lime stabilization processing equipment would need to be replaced and new equipment installed (e.g., dryers). This alternative would also require negotiation of a disposal contract with a waste-to-energy facility, contingency planning, and all of the necessary regulatory approvals and public and First Nations engagement. As noted in the September 17, 2015 staff report, to the Commission, the cost to produce Class A biosolids using the lime stabilization process was in the order of \$450-500/tonne. The primary costs included: high labour costs, (as the process required significant operator attention), lime, power, water and odour control. Under Alternative 2, it would be proposed to complete the options analysis by the end of 2021.

CONCLUSION

Beginning in 2021, it is anticipated that BC Ministry of Environment and Climate Change Strategy will require beneficial reuse of residual solids from the SPWWTP that, since 2011, have been deposited at Hartland Landfill. The core area RTF was designed with capacity to treat residual solids from other CRD wastewater treatment facilities. Costs associated with production and beneficial reuse of Class A biosolids are anticipated to be greater than the cost of controlled waste disposal at Hartland Landfill. However, definitive determination of cost is uncertain until RTF operations have stabilized. Staff recommend preparing 2021 SPWWC budget with the intent to

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deposit residual solids at the RTF for processing and beneficial reuse, at a fee of \$225/tonne. Definitive costs for biosolids processing and beneficial use will be determined once stable operations have been achieved at the RTF.

RECOMMENDATION

That the Saanich Peninsula Wastewater Commission direct staff to prepare its 2021 budget with the intent to haul residual solids to the Hartland Residual Solids Treatment Facility for processing and beneficial reuse.

Submitted by:	Glenn Harris, Ph.D., R.P.Bio., Senior Manager, Environmental Protection
Concurrence:	Larisa Hutcheson, P.Eng., General Manager, Parks & Environmental Services
Concurrence:	Ted Robbins, B.Sc., C.Tech., General Manager, Integrated Water Services
Concurrence:	Robert Lapham, M.C.I.P., R.P.P., Chief Administrative Officer