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SAANICH PENINSULA WASTEWATER COMMISSION

Notice of Meeting on **Thursday, May 20, 2021 at 9:30 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.

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

AGENDA

- 1. TERRITORIAL ACKNOWLEDGEMENT**
- 2. APPROVAL OF AGENDA**
- 3. ADOPTION OF MINUTES2**
Recommendation: That the minutes of the March 18, 2021 meeting be adopted.
- 4. CHAIR’S REMARKS**
- 5. PRESENTATIONS/DELEGATIONS**
In keeping with directives from the Province of BC, this meeting will be held without the public present. A phone in number is provided above that will allow the public to listen to the meeting.
Presentation and Delegation requests can be made [online](#) or complete this [printable form](#) (PDF). Requests must be received no later than 4:30 p.m. two calendar days prior to the meeting.
- 6. COMMISSION BUSINESS**
 - 6.1. Saanich Peninsula Wastewater Inflow and Infiltration Update 20215**
Recommendation: That the Saanich Peninsula Wastewater Commission receive this report for information.
- 7. NOTICE OF MOTION**
- 8. NEW BUSINESS**
- 9. ADJOURNMENT**

Next Meeting: Thursday, July 15, 2021

*To ensure quorum, advise Denise Dionne **250-360-3087** if you cannot attend.*



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MINUTES OF A MEETING OF THE SAANICH PENINSULA WASTEWATER COMMISSION
Held Thursday, March 18, 2021 in Meeting Room #6 at Greenglade Community Centre,
2151 Lannon Way, Sidney BC

PRESENT: Commissioners: R. Barnhart; M. Doehnel; S. Duncan; D. Kelbert (EP); Z. King (EP); B. Fallot for C. McNeil-Smith; G. Orr; M. Weisenberger; M. Williams; R. Windsor (EP)

Staff: T. Robbins, General Manager, Integrated Water Services; G. Harris, Senior Manager, Environmental Protection; M. Cowley, Manager, Wastewater Engineering & Planning; D. Dionne (recorder); I. Jesney, Senior Manager, Infrastructure Engineering (EP); S. Irg, Infrastructure Water Operations (EP)

ALSO PRESENT: B. Barnett, Director, Engineering and Public Works, District of Central Saanich

EP = Electronic Participation

The meeting was called to order at 9:38 a.m.

1. TERRITORIAL ACKNOWLEDGEMENT

Chair Barnhart provided the Territorial Acknowledgement.

2. APPROVAL OF AGENDA

Correspondence was added to the agenda as Item 7, moving Items 8 and 9 to 9 and 10 respectively.

MOVED by Commissioner Orr, **SECONDED** by Commissioner Weisenberger,
 That the agenda be approved as amended.

CARRIED

3. ADOPTION OF MINUTES

MOVED by Commissioner Orr, **SECONDED** by Commissioner Duncan,
 That the minutes of the January 21, 2021 meeting be adopted.

CARRIED

4. CHAIR'S REMARKS

The Chair made no remarks.

5. PRESENTATIONS/DELEGATIONS

There were no presentations or delegations.

6. COMMISSION BUSINESS

6.1. Saanich Peninsula Wastewater Treatment Plant - Rotary Press Replacement – Installation Location Options

M. Cowley introduced the report noting that, staff reviewed placement options on where best to locate the new press and this report provides a summary of the location options.

Discussion ensued and staff responded to questions from the Commission regarding:

- The expected life span of the existing equipment and that of the new equipment, both being 25 years.
- What the plans are for the space that's left after the old equipment has been removed and decommissioned. Staff are reviewing the possibility of using it for storage, as well as other possible usage options for the space.
- The potential risk of having to manage the solids processing in the future – would need to look at additional space.
- The process of dewatering the solids at the Residuals Treatment Facility at Hartland Landfill.
- The plan for disposal of the removed equipment, the contractor would review whether resale or disposal are the appropriate options.

R. Windsor left the meeting.

MOVED by Commissioner Orr, **SECONDED** by Commissioner King,
That the Saanich Peninsula Wastewater Commission directs staff to proceed with the installation of the replacement rotary press in the Solids Handling room.

CARRIED

6.2. Established Harbours Environmental Action Services in the Region

G. Harris introduced the report that is in response to a request from the Commission, at its November 10, 2020 meeting, asking staff to prepare a summary of outcomes from similarly established services. He stated that the Harbours Service is part of the Core Area Liquid Waste Management Plan.

Discussion ensued regarding:

- Peninsula Councils support for the service.
- Budget for the service is included in the 2021 budget.

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

CARRIED

6.3. Long-Term Biosolids Management Planning Update

G. Harris introduced the report that outlines the Request for Expressions of Interest submissions for the investigation of long-term Biosolids management options. He noted that an external consultant was retained to assist with the technical evaluation who recommended that the Capital Regional District (CRD) pursue pilot studies at existing facilities.

Discussion ensued and staff responded to questions with following additional information:

- Pilots could be initiated in the third and fourth quarters of this year and staff should be able to report back to the CRD Board by the second quarter of 2022.
- There is no liability to the Commission or the peninsula municipalities related to the transporting of the Biosolids to the Residuals Treatment Facility at Hartland landfill.
- The Province of BC wants the CRD to consider land application in its review of long-term options.
- CRD will consider industrial and recreational lands for land application of Biosolids prior to agricultural use.

MOVED by Commissioner King, **SECONDED** by Commissioner Williams,
That the Saanich Peninsula Wastewater Commission continue to receive regular updates from staff on the Long-Term Biosolids Management Planning process.

CARRIED

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

CARRIED

7. CORRESPONDENCE

The Commission received email correspondence on March 15, 2021 from G. Harris, Senior Manager, Environmental Protection, in response to a request for information from the Commission at its July 16, 2020 meeting. The correspondence is attached to the minutes for information.

MOVED by Commissioner King, **SECONDED** by Commissioner Williams,
That the Saanich Peninsula Wastewater Commission receive the correspondence for information.

CARRIED

8. NEW BUSINESS

There was no new business.

9. ADJOURNMENT

MOVED by Commissioner Weisenberger, **SECONDED** by Commissioner Williams,
That the meeting be adjourned at 10:39 a.m.

CARRIED

CHAIR

SECRETARY



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EEP 21-19

REPORT TO SAANICH PENINSULA WASTEWATER COMMISSION MEETING OF THURSDAY, MAY 20, 2021

SUBJECT **Saanich Peninsula Wastewater – Inflow & Infiltration Update**

ISSUE SUMMARY

To provide an update on Inflow & Infiltration (I&I) commitments in the Saanich Peninsula Liquid Waste Management Plan.

BACKGROUND

The Saanich Peninsula Liquid Waste Management Plan (Plan) sets goals and commitments for the Capital Regional District (CRD) and Saanich Peninsula municipalities to manage Inflow & Infiltration (I&I). An audit of the Plan in 2019 identified that while the majority of commitments have been completed or were compliant, a small number of the goals and commitments are not being met, including programming to reduce I&I in the sanitary sewer (see June 18, 2020 staff report regarding the Plan audit).

The objective of developing an Inflow & Infiltration education program, as summarized in the Plan, is to:

- evaluate and quantify I&I from all participants; and
- reduce I&I, where economically justified, to acceptable levels, in accordance with the Municipal Wastewater Regulation (MWR).

The Saanich Peninsula wastewater system has not had any documented wet weather related overflows but, as infrastructure ages, there is evidence that I&I does increase (through leaky joints, manholes, cross-connections, etc.). In addition, due to climate change, wet weather storms are becoming more intense, which also can lead to higher I&I-related peak flows during storm events.

As reported in the January 16, 2020 Saanich Peninsula Wastewater Treatment Plant Capacity Update staff report to the Commission, based on 2018-2019 flow data, the average and peak daily capacity used at the wastewater treatment plant is 48% and 72% respectively. There were no overflows, but more capacity is being used during peak flow events. The I&I response to rainfall is shown in Appendix A.

During those rainfall events, (which had an intensity of about a two-to-three-year return period), the peak 24-hour sewer flows were 3.7 to 5.3 times higher than average dry weather flow (ADWF) for a typical summer day. For context, the MWR indicates that the peak 24-hour flow rate should not exceed two times ADWF.

The CRD has completed some minor I&I analysis on the Saanich Peninsula in the past and some municipalities have completed various upgrades to their wastewater collection systems. However, a comprehensive I&I reduction program has not been developed for the Saanich Peninsula wastewater system.

In 2020, the Saanich Peninsula Wastewater Commission approved funding for a three-year I&I program for the Peninsula. The work plan is summarized as follows:

Year 1 (2020, complete)

- Initiated the process for generating five years of sewer flow data for each municipal pump. This involved downloading historical municipal pump station data (stored in a Supervisory Control and Data Acquisition System). This is the most cost-effective way to collect flow data for I&I analyses.
- Using GIS, created catchment maps for each municipal pump station and documented summary stats for each catchment (i.e., pipe age, land use, number of connections)
- Budget for Year 1: \$30,000

Year 2 (first quarter 2021, complete)

- Provided a detailed project overview to each of the municipalities.
- Obtained pump station field measurements and related data from Peninsula municipal staff for use in the pump station flow calculations.
- Generated sewer flows for each municipal pump station.
- Had the flow data from each pump station assessed by a consultant (Graded A to F). These grades are important for end users who need to determine if the data quality meets their needs (i.e., I&I analyses, municipal, sewer modellers).

Year 2 (remainder of 2021)

- Carry out I&I analyses for each municipal pump station.
- Present an overview of the project to the Saanich Peninsula Liquid Waste Management Plan Technical Advisory Committee. CRD staff have engaged municipal staff to arrange the first Technical Advisory Committee meeting.
- Meet with each municipality to discuss I&I analyses results and to initiate a conversation about potential next steps (i.e., prioritized investigation work).
- Budget for Year 2: \$41,000.

Year 3 (2022)

- Work with Sidney, North Saanich and Central Saanich to develop custom I&I management plans complete with high level planned actions, timelines and costs.
- Estimated cost for Year 3: \$65,000.

ALTERNATIVES

Alternative 1

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

Alternative 2

That the Saanich Peninsula Wastewater Commission refer this report back to staff for further information.

IMPLICATIONS

Environmental & Climate Implications

The work documented in the report supports CRD commitments related to reducing I&I, power consumption and the potential for overflows, which will have a positive effect on the environment.

Intergovernmental Implications

The work supports the I&I commitments in the Saanich Peninsula Liquid Waste Management Plan. Staff are planning to revise and update this Plan in the next two years, which will include public and First Nations engagement, and provincial regulatory approval.

Social Implications

Appropriate management planning for I&I will reduce the risk of future overflows and associated beach closures. As residents and businesses become more aware of I&I through ongoing public education and outreach programs, there will be a greater understanding of how everyone can be part of the solution to reduce I&I.

Financial Implications

Funding has already been approved for this three-year program.

Alignment with Board & Corporate Priorities

Planning and management of I&I aligns with the CRD Corporate Plan priority 8a – *to advance management of wastewater and stormwater through liquid waste management planning and construction/maintenance of facilities.*

CONCLUSION

The Liquid Waste Management Plan commits the Capital Regional District and Saanich Peninsula municipalities to manage Inflow and Infiltration (I&I) in the sanitary conveyance system. While there have been no documented wet weather overflows from the Saanich Peninsula wastewater system, peak wet weather flows exceed Municipal Wastewater Regulation guidelines. In 2020, funding was approved for a three-year program to fulfill the outstanding I&I commitments in the Saanich Peninsula Liquid Waste Management Plan. The Core Area I&I program is leveraging its existing knowledge and expertise to efficiently carry out the work. The three-year work plan is currently on schedule and in Year 2.

RECOMMENDATION

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

Submitted by:	Glenn Harris, Ph.D., R.P.Bio., Senior Manager, Environmental Protection
Concurrence:	Larisa Hutcheson, P.Eng., General Manager, Parks & Environmental Services

ATTACHMENT

Appendix A: Flow Graphs for January 3, 2019 & January 31, 2020 Storm Events

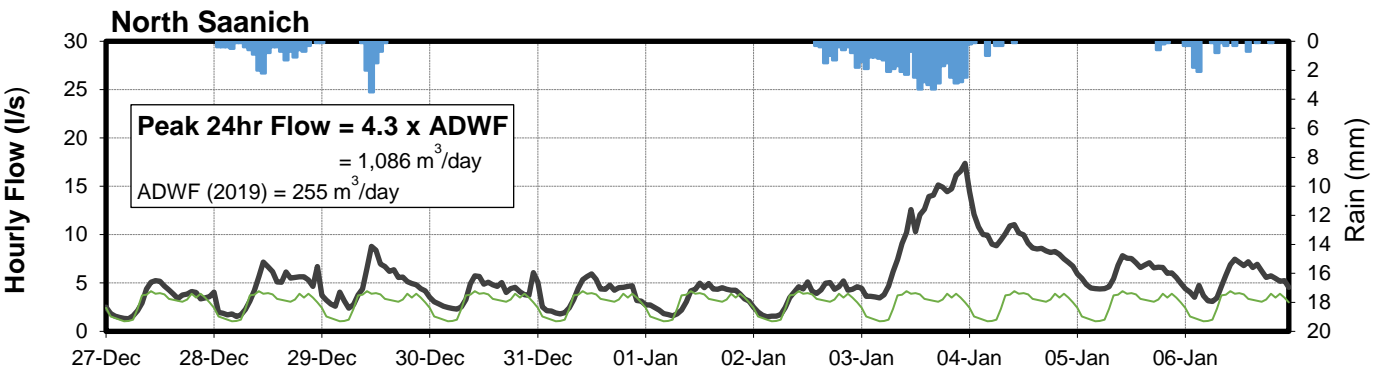
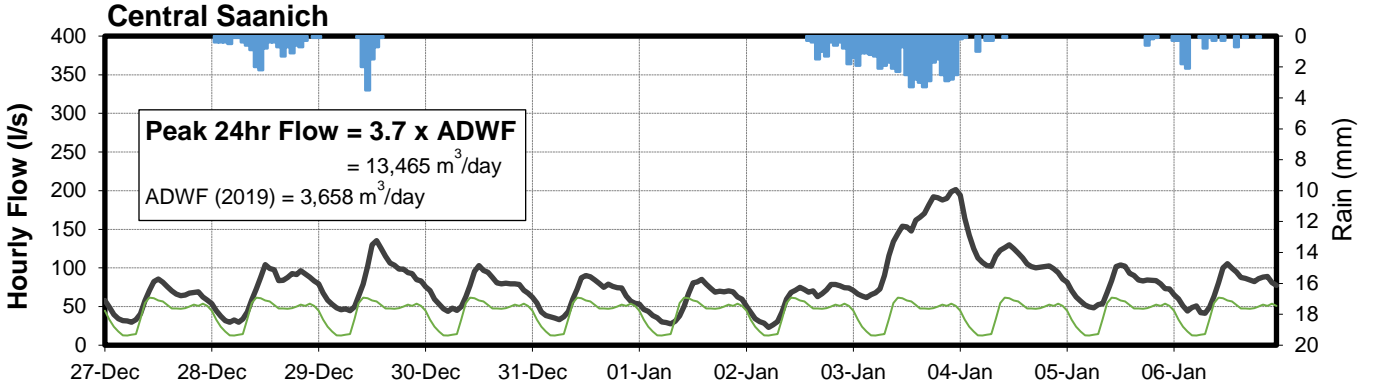
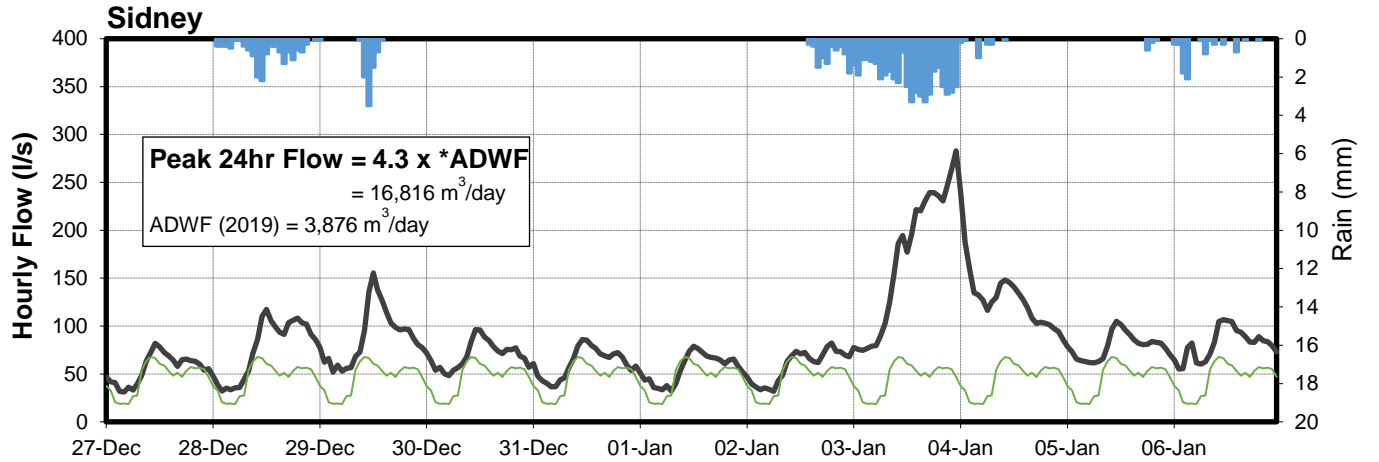
FLOW GRAPHS FOR JANUARY 3, 2019 AND JANUARY 31, 2020 STORM EVENTS

May 2021

January 3, 2019 Rainfall Event

24 Hr Rainfall = 51 mm
~1.8 year storm (Vic Airport Intensity-Duration-Frequency)

— Peak 24hr Flow
— Average Dry Weather Flow (ADWF)



January 31, 2020 Rainfall Event
 24 Hr Rainfall = 57mm
 ~2.6 year storm (Vic Airport Intensity-Duration-Frequency)

