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## SAANICH PENINSULA WASTEWATER COMMISSION

Notice of Meeting on **Thursday, January 21, 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.**

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R. Barnhart	D. Kelbert	G. Orr	(Sidney – Vacant)
M. Doehnel	Z. King	M. Weisenberger	
S. Duncan	C. McNeil-Smith	R. Windsor	

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### AGENDA

#### 1. TERRITORIAL ACKNOWLEDGEMENT

#### 2. CALL TO ORDER

*By Ted Robbins, General Manager, Integrated Water Services*

#### 3. ELECTION OF CHAIR

*(Pursuant to Section 2(e) Bylaw No. 3427)*

*Election conducted by General Manager with assistance from Integrated Water Services Administrative Coordinator*

#### 4. ELECTION OF VICE CHAIR

*(Pursuant to Section 2(e) Bylaw No. 3427)*

*Election conducted by newly elected Chair with assistance from Integrated Water Services Administrative Coordinator*

#### 5. APPROVAL OF AGENDA

#### 6. APPROVAL OF RESOLUTION FOR 2021

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

- 1. That this resolution applies to the Saanich Peninsula Wastewater Commission for the meetings being held between January 1, 2021 and December 31, 2021.*
- 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:*

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

- 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.*

**7. ADOPTION OF MINUTES .....1**

*Recommendation: That the minutes of the October 15, 2020 meeting and November 10, 2020 special meeting be adopted.*

**8. CHAIR’S REMARKS**

**9. PRESENTATIONS/DELEGATIONS**

*Presentations and delegations requests can be made online [here](#), a printable form is also available. Requests must be received no later than 4:30 p.m. two calendar days prior to the meeting.*

**10. COMMISSION BUSINESS**

**10.1. 21-01 Supply of Sludge Dewatering Equipment – RFP No. 2020-632.....8**

**Recommendations:**

- 1. *That the Saanich Peninsula Wastewater Commission recommends to the Capital Regional District Board that the 19-01 Project Budget, in the Saanich Peninsula Wastewater Services 2021 Capital Plan, be increased by \$300,000 from the capital reserve fund to bring the revised project budget up to \$1,490,000.*
- 2. *That the Saanich Peninsula Wastewater Commission award Contract 2020-632 - Supply of Sludge Dewatering Equipment, to Fournier Industries in the amount of \$589,730 plus taxes.*

**11. NEW BUSINESS**

**12. ADJOURNMENT**

**Next Meeting:** Thursday, March 18, 2021



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## MINUTES OF A SPECIAL MEETING OF THE SAANICH PENINSULA WASTEWATER COMMISSION

Held Tuesday, November 10, 2020 in Meeting Room #6 at Greenglade Community Centre, 2151 Lannon Way, Sidney BC

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**PRESENT:** **Commissioners:** R. Barnhart (Vice Chair); M. Doehnel; C. McNeil-Smith; G. Orr; M. Weisenberger; M. Williams; R. Windsor  
**By WebEx:** D. Kelbert; Z. King

**Also Present by WebEx:** S. Duncan (for P. Wainwright); B. Fallot

**Staff:** G. Harris, Senior Manager, Environmental Protection; I. Jesney, Senior Manager, Infrastructure Engineering; D. Dionne (recorder)

**REGRETS:** P. Wainwright (Chair)

The meeting was called to order at 9:02 a.m.

### 1. TERRITORIAL ACKNOWLEDGEMENT

Vice Chair Barnhart presented the Territorial Acknowledgement.

### 2. APPROVAL OF AGENDA

**MOVED** by Commissioner Windsor, and **SECONDED** by Commissioner Doehnel, That the November 10, 2020 Special Meeting agenda be approved as circulated.

**CARRIED**

### 3. PRESENTATIONS/DELEGATIONS

There were no presentations or delegations.

### 4. SPECIAL MEETING BUSINESS

#### 4.1. CRD Bylaw No. 4391 - Establishment of a New Harbours Environmental Action Service for Saanich Peninsula

G. Harris outlined the process for establishing the new service, noting that:

- This first step is to seek Commission support for the Establishment of a New Harbours Environmental Service for Saanich Peninsula
- The recommendation would then be brought to the Capital Regional District (CRD) Board for consideration then it would be referred to Municipal Councils for approval.
- If it is successful at Municipal Councils it would come back to the CRD Board to be referred to the BC Inspector of Municipalities for approval.

He summarized the report stating that there are increased stressors impacting the environment around the near shores of the peninsula. There are concerns with the harbours and neighbouring waters and off-shore moored boats.

He advised that, in response to these concerns, Local Governments are considering their options for dealing with the issues and one option is to seek sub-regional coordination and cooperation among Local Governments and potentially with the senior levels of government, First Nations, community groups and associations.

Staff responded to questions from the Commission and the following additional information was provided:

- This will be a standalone Service that would not fall under the Liquid Waste Management Plan.
- In terms of governance, there would still need to be a Committee or Commission to make recommendations to the Board.
- Regulatory enforcement of offshore marine vessels lies with senior levels of government.
- Senior government funding cannot be secured until the Service is in place.
- The Bylaw is written to allow the Service to be broad enough to encompass issues outside of the Liquid Waste Management Plan, such as environmental stewardship and public education and outreach to any research or planning, searching out grants or looking for other ways to coordinate project stewardship.
- The intent is to bring together all the stakeholders who have responsibilities for the issues, identify roles and responsibilities and coordinate a response to the issues. Senior Governments, local governments, community associations and the public all have roles to play.

The Commission asked staff to provide examples of other successful Services using the same model. Staff noted the following:

Esquimalt Lagoon Stewardship:

- The Federal Government - responsible for vessel traffic
- The rowing community – as a stakeholder
- There is a bird sanctuary
- Public and dog use impacting on the wildlife
- Contamination, from development in the area

Gorge Waterway Initiative:

- Similar issues around development happening on the waterway
- Conversations were brought together around the moorage of boats in the Gorge Waterway above the Trestle
- The question of jurisdictional responsibility was resolved with the City of Victoria applying for a license of occupation

Bowker Creek Initiative:

- Bowker Creek runs through three municipalities
- Community groups, local government and senior levels of government were all brought together for the funding, planning, development and restoration of the creek

The CRD facilitates these conversations by formalizing meetings and providing the opportunity to put an agenda forward, identify the topics for discussion and work toward some action. Each of those committees have pursued grant money and opportunities that senior levels of government are providing.

### **Motion Arising**

**MOVED** by Commissioner King, and **SECONDED** by Commissioner Kelbert, That staff prepare a summary of outcomes from similarly established services in the Region, and the cost benefit of it, so that the Commission can evaluate how the Services have resulted in changes.

### **Secondary Motion**

**MOVED** by Commissioner, Windsor and **SECONDED** by Commissioner, Williams That the question be referred to the CRD Board when it considers the Bylaw.

**CARRIED**

**MOVED** by Commissioner Windsor, and **SECONDED** by Commissioner Williams, The Saanich Peninsula Wastewater Commission recommends to the Capital Regional District Board:

1. That CRD Bylaw No. 4391 "Saanich Peninsula Waterways Environmental Action Service Establishment Bylaw No. 1, 2020" be introduced and read a first, second time and third time; and
2. That Bylaw No. 4391 be referred to the municipal councils of the participants for approval, and if two-thirds of approval is received, to the Inspector of Municipalities.

**CARRIED**

## **5. ADJOURNMENT**

**MOVED** by Commissioner Windsor, and **SECONDED** by Commissioner McNeil-Smith, That the meeting be adjourned at 9:39 a.m.

**CARRIED**

\_\_\_\_\_  
**CHAIR**

\_\_\_\_\_  
**SECRETARY**



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**MINUTES OF A MEETING OF THE SAANICH PENINSULA WASTEWATER COMMISSION**  
**Held Thursday, October 15, 2020 in Meeting Room #6 at Greenglade Community Centre,**  
**2151 Lannon Way, Sidney BC**

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**PRESENT: Commissioners:** P. Wainwright (Chair); R. Barnhart (Vice Chair); M. Doehnel; B. Falloot for C. McNeil-Smith; G. Orr; M. Underwood; M. Williams  
**By WebEx:** D. Kelbert

**Staff:** R. Lapham, CAO; T. Robbins, General Manager, Integrated Water Services; I. Jesney, Senior Manager, Infrastructure Engineering; G. Harris, Senior Manager, Environmental Protection; E. Elder, Senior Financial Advisor; D. Dionne (recorder)

**REGRETS:** Z. King; M. Weisenberger; R. Windsor

The meeting was called to order at 9:57 a.m.

**1. TERRITORIAL ACKNOWLEDGEMENT**

Chair Wainwright provided the territorial acknowledgement.

**2. APPROVAL OF AGENDA**

**MOVED** by Commissioner Williams, **SECONDED** by Commissioner Doehnel,  
 That the Agenda be approved as circulated.

**CARRIED**

**3. ADOPTION OF MINUTES**

**MOVED** by Commissioner Orr, **SECONDED** by Commissioner Barnhart,  
 That the minutes of the July 16, 2020 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. 2019-2022 Wastewater Service Planning**

T. Robbins introduced the report and advised that only one of the four initiatives identified in the Plan relates to the Saanich Peninsula Wastewater Service which is the development of an Inflow and Infiltration Reduction Management Program for the Peninsula.

**MOVED** by Commissioner Orr, **SECONDED** by Commissioner Williams,  
The Saanich Peninsula Wastewater Commission recommends to the Capital Regional District Board:

That Appendix A Community Need Summary – Wastewater be approved as presented and advanced to the October 28, 2020 Provisional budget review process.

**CARRIED**

T. Robbins introduced staff in the room. He acknowledged that today is the day that British Columbian's participate in the Great British Columbian Shakeout earthquake drill, an annual opportunity to practice how to be safer during big earthquakes.

## 6.2. Saanich Peninsula Wastewater Service - 2021 Operating and Capital Budget

T. Robbins summarized the report as presented by reviewing:

- 2020 Year-end financial projections
- The net increase in the 2021 operating expenses
- The planned transfer to the maintenance reserve fund in 2021
- Operating revenue related to the District Energy System
- Planned capital expenditures for 2021
- The planned transfer to the capital reserve fund in 2021
- The Development Cost Charges program

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

- Inflow and Infiltration related to our own infrastructure
- Tipping fee for biosolids at the Residuals Treatment Facility
- First Nations participation related to infrastructure and service agreements
  - Improving communications between the Capital Regional District (CRD) and First Nations and engagement with the W̱SÁNEĆ Leadership Council
  - Capital funding challenges for First Nations for aging infrastructure
  - Municipal discussions with technical staff with respect to First Nations infrastructure
  - The work progressing with T'sawout staff on the wastewater initiative
- Flood Construction Level (FCL) and sea level rise adaptation considerations

**MOVED** by Commissioner Orr, **SECONDED** by Commissioner Barnhart,  
The Saanich Peninsula Wastewater Commission recommends that the CRD Board:

1. Approve the 2021 Saanich Peninsula trunk sewers, treatment and disposal operating and capital budget and the 2021 Saanich Peninsula Liquid Waste Management Plan (LWMP) program budgets including the LWMP administration budget, the Saanich Peninsula Stormwater Quality Management Program budget and the Saanich Peninsula Stormwater Source Control budget; and
2. Balance the 2020 actual revenue and expense on the transfer to capital reserve fund.

**CARRIED**

## ***B. Lapham left the meeting***

### 6.3. Bylaw No. 4372, Transfer of Funds from Development Cost Charges Reserve to Related Capital Reserve

T. Robbins summarized the report as presented.

Chair Wainwright stated how the Development Cost Charges are calculated and how the funds can be used.

**MOVED** by Commissioner Orr, **SECONDED** by Commissioner Williams,  
That the Saanich Peninsula Wastewater Commission recommends to the Capital Regional District Board:

1. That Bylaw No. 4372 cited as “Saanich Peninsula Water and Wastewater Development Cost Charges Transfer to Capital Reserve Bylaw No. 1, 2020” be introduced and read a first, second, and a third time.
2. That Bylaw No. 4372 be referred to the Inspector of Municipalities for review as required by the Local Government Act and Community Charter.

**CARRIED**

### 6.4. Reay Creek Environmental Incident (Verbal Report)

G. Harris provided a verbal update noting the following:

- There is some historical contamination associated with the creek
- The Township of Sidney is conducting some work related to the contamination and the creek is being diverted around the stormwater retention pond and dam
- A fish kill was reported in the stormwater retention pond
- It appeared that a storm event damaged the diversion fencing which allowed the fish to bypass the diversion
- The fish kill appeared to be caused by a low dissolved oxygen content in the water
- There was no obvious leak of sewage contamination
- Staff have placed an aerator into the pond to improve oxygenation

**MOVED** by Commissioner Williams, **SECONDED** by Commissioner Orr,  
That the verbal update on the Reay Creek Environmental Incident be received for information.

## 7. SAANICH PENINSULA WASTEWATER COMMISSION APPOINTMENT LETTERS EXPIRING TERMS – DECEMBER 31, 2020

Chair Wainwright advised that this is a reminder that Commission appointments are coming due for the next term. T. Robbins advised that letters will be sent to municipal staff as a reminder.

## 8. NEW BUSINESS

Discussion ensued regarding First Nations relationships and how Nations are funded. M. Underwood expressed her appreciation for receiving stormwater updates and reporting information.



9. ADJOURNMENT

**MOVED** by Commissioner Williams, **SECONDED** by Commissioner Barnhart,  
That the meeting be adjourned at 11:00 a.m.

**CARRIED**

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CHAIR

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SECRETARY

DRAFT



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SPWWC 21-01

**REPORT TO SAANICH PENINSULA WASTEWATER COMMISSION  
MEETING OF THURSDAY, JANUARY 21, 2021**

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**SUBJECT**     **Supply of Sludge Dewatering Equipment – RFP No. 2020-632**

**ISSUE SUMMARY**

To seek approval to award a contract for supply of sludge dewatering equipment and to request additional funds for the project.

**BACKGROUND**

The 2013 Stantec condition assessment report recommended replacement of the rotary press by 2020. The existing 25-year-old press has operated well but it is nearing its end of life, is becoming more difficult to maintain, and there is no redundancy to this critical piece of equipment. The Saanich Peninsula Wastewater Commission approved funding in the 2019 budget to commence with the rotary press replacement. The scope of the project included: assessing sludge dewatering options, recommending a technology with the best triple-bottom-line, pre-purchasing the equipment, and retaining a contractor to install the equipment. The total approved capital budget for the project is \$1,190,000.

**Progress to Date**

Through a competitive request for proposal (RFP) process, an engineering consultant (HDR Inc.) was retained in 2020 to complete the technology review and prepare procurement documents for pre-purchasing the new equipment. HDR reviewed the following sludge dewatering technologies: rotary press, centrifuges, screw press, and a belt filter press. The screw and belt filter press equipment is too large and will not fit into the available space where the existing rotary press resides so they were not considered. A triple bottom line analysis was completed on the rotary press and two centrifuges. The rotary press ranked much higher than the centrifuges, primarily due to lower capital and lifecycle cost, equipment fit, good operator experience, less noise, and built-in redundancy.

HDR completed the preliminary design and specifications for a larger rotary press unit to accommodate population growth until the year 2045. RFP No. 2020-632 was issued for pre-purchasing the rotary press and it closed on December 4, 2020. Only one proposal was received from Fournier Industries (the same supplier as the existing press). Their proposal met all of the technical requirements and the total price was \$589,730 plus taxes. This cost is higher than originally anticipated due to a change in the fire protection and electrical code standards requiring explosion proof motors and control panels. In addition, during the preliminary design, HDR identified a number of other items that were not included in the original budget, including: demolition of a wall to remove the existing press, and a more complicated temporary dewatering system required to keep the plant running while removing the old and installing the new equipment.

Consequently, additional funds of approximately \$300,000 are required in order to complete this project. The Capital Reserve Funds have a balance of \$1,652,256 as of December 31, 2020, leaving sufficient funds available to increase the project budget and adjustments can be made to the 2021 capital plan budget to accommodate the budget increase (see revised capital plan and expenditure plan summary in Appendix A).

### **ALTERNATIVES**

#### *Alternative 1*

1. That the Saanich Peninsula Wastewater Commission recommends to the Capital Regional District Board that the 19-01 Project Budget, in the Saanich Peninsula Wastewater Services 2021 Capital Plan, be increased by \$300,000 from the capital reserve fund to bring the revised project budget up to \$1,490,000.
2. That the Saanich Peninsula Wastewater Commission award Contract 2020-632 - Supply of Sludge Dewatering Equipment, to Fournier Industries in the amount of \$589,730 plus taxes.

#### *Alternative 2*

1. That the Saanich Peninsula Wastewater Commission not recommend that the 19-01 Project Budget, in the Saanich Peninsula Wastewater Service 2021 Capital Plan, be increased by \$300,000 from the capital reserve fund.
2. That the Saanich Peninsula Wastewater Commission not award Contract 2020-632 – Supply of Sludge Dewatering Equipment.

#### *Alternative 3*

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

### **IMPLICATIONS**

**Alternative 1** – Fournier Industries are a reputable Canadian company, the proposal met all of the technical requirements, and they have provided good service to the Capital Regional District (CRD) with the existing rotary press. They have indicated the equipment can be manufactured and delivered to the site by summer, in time to replace the equipment this year. Costs are higher than originally anticipated due to electrical code changes and other unanticipated conditions. There are sufficient funds available in the capital reserve fund to increase the project budget by \$300,000 to \$1,490,000.

**Alternative 2** – The RFP could be cancelled, the capital reserve fund can remain unchanged, and a new RFP could be re-issued which would delay the replacement of the existing rotary press and likely result in higher costs. In addition, there would be some additional risk in operating the existing rotary press longer than its recommended replacement time and should it cease to perform properly, liquid sludge would have to be trucked to the Hartland Residual Treatment Facility at considerable extra trucking expense.

### **CONCLUSION**

The existing rotary press has performed well over the last 25 years but requires replacement. HDR Inc. completed a technology review of dewatering equipment and then completed the preliminary design of new, larger rotary press. A RFP was issued for the pre-purchase of a new rotary press and one proposal was received from Fournier Industries. Fournier's proposal meets all of the technical requirements and their proposal amount was \$589,730 plus taxes. The cost is higher than originally anticipated due to electrical code changes and other unanticipated conditions. There are sufficient funds available in the capital reserve fund to increase the project budget by \$300,000 to \$1,490,000 in order to complete this project.

### **RECOMMENDATIONS**

1. That the Saanich Peninsula Wastewater Commission recommends to the Capital Regional District Board that the 19-01 Project Budget, in the Saanich Peninsula Wastewater Services 2021 Capital Plan, be increased by \$300,000 from the capital reserve fund to bring the revised project budget up to \$1,490,000.
2. That the Saanich Peninsula Wastewater Commission award Contract 2020-632 - Supply of Sludge Dewatering Equipment, to Fournier Industries in the amount of \$589,730 plus taxes.

Submitted by:	Malcolm Cowley, P.Eng., Manager, Wastewater Engineering and Planning
Concurrence:	Ian Jesney, P.Eng., Senior Manager, Infrastructure Engineering
Concurrence:	Nelson Chan, MBA, FCPA, FCMA, Chief Financial Officer
Concurrence:	Ted Robbins, B. Sc., C. Tech., General Manager, Integrated Water Services
Concurrence:	Robert Lapham, MCIP, RPP, Chief Administrative Officer

### **ATTACHMENT**

Appendix A: Revised 2021-2025 Capital Plan and Expenditure Plan Summary

CAPITAL REGIONAL DISTRICT CAPITAL PLAN

CAPITAL BUDGET FORM  
2021 & Forecast 2022 to 2025

Service #: 3.718  
Service Name: Saanich Peninsula Wastewater

**Proj. No.**  
The first two digits represent first year the project was in the capital plan.

**Capital Exp. Type**  
**Study** - Expenditure for feasibility and business case report.  
**New** - Expenditure for new asset only  
**Renewal** - Expenditure upgrades an existing asset and extends the service ability or enhances technology in delivering that service  
**Replacement** - Expenditure replaces an existing asset

**Funding Source Codes**  
Debt = Debenture Debt (new debt only)  
ERF = Equipment Replacement Fund  
Grant = Grants (Federal, Provincial)  
Cap = Capital Funds on Hand  
Other = Donations / Third Party Funding

**Funding Source Codes (cont)**  
Res = Reserve Fund  
STLoan = Short Term Loans  
WU = Water Utility

**Asset Class**  
L - Land  
S - Engineering Structure  
B - Buildings  
V - Vehicles  
E - Equipment

**Capital Project Title**  
Input Title of Project. For example "Asset Name - Roof Replacement", "Main Water Pipe Replacement".

**Capital Project Description**  
Briefly describe project scope and service benefits.  
For example: "Full Roof Replacement of a 40 year old roof above the swimming pool area; The new roofing system is built current energy standards, designed to minimize maintenance and have an expected service life of 35 years".

**Total Project Budget**  
This column represents the total project budget not only within the 5-year window.

FIVE YEAR FINANCIAL PLAN

Proj. No.	Capital Exp.Type	Capital Project Title	Capital Project Description	Total Proj Budget	Asset Class	Funding Source	C/F from 2020	2021	2022	2023	2024	2025	5 - Year Total
<b>WASTEWATER TREATMENT PLANT</b>													
16-06	New	Biosolids Treatment & Disposal Options Study	Study to determine viable options for treatment and disposal of biosolids from the SPWWTP.	\$100,000	S	Cap	\$100,000	\$100,000	\$0	\$0	\$0	\$0	\$100,000
19-01	Replacement	SPWWTP Replacement of Rotary Presses	Assess dewatering options of sludge and implement prior to possible failure of the rotary presses.	\$1,490,000	S	Res	\$800,000	\$1,200,000	\$0	\$0	\$0	\$0	\$1,200,000
20-01	Renewal	Isolation Valve Installation for Oxidation Ditches	To maintain operator safety isolation valves are required prior to the oxidation ditches at the SPWWTP.	\$130,000	S	Res	\$40,000	\$40,000	\$0	\$0	\$0	\$0	\$40,000
20-02	Renewal	Replace Aerators in Oxidation Ditches	The existing 75hp aerators are at end of life and need to be upsized to 100hp to provide additional dissolved oxygen for future loading/increased strength of the wastewater.	\$200,000	E	ERF	\$175,000	\$175,000	\$0	\$0	\$0	\$0	\$175,000
20-06	Renewal	SPWWTP Road Upgrades & Repairs	The existing asphalt road at the SPWWTP requires some repairs and road extension around the clarifier tank.	\$300,000	S	Res	\$0	\$0	\$0	\$0	\$285,000	\$0	\$285,000
21-01	Renewal	SPWWTP Concrete Tank Repairs	Stantec completed an assessment and provided recommendations to repair significant internal corrosion in the clarifier, sludge tank, and process drain sump and this project will implement the repairs.	\$850,000	S	Res	\$0	\$850,000	\$0	\$0	\$0	\$0	\$850,000
21-03	Renewal	SPWWTP Screenings Bin	Debris from the raw sewage screenings is being comingled with dewatered sludge. It must be separated into its own bin so that dewatered sludge can be beneficially re-used.	\$300,000	S	Res	\$0	\$0	\$0	\$50,000	\$250,000	\$0	\$300,000
21-05	Renewal	SPWWTP HVAC Fan Replacements	The HVAC Fan's were identified in Stantec's 2014 condition assessment as requiring replacement, funds are required to reassess the fans, design replacement and carry out replacement.	\$200,000	S	Res	\$0	\$50,000	\$150,000	\$0	\$0	\$0	\$200,000

23-03	Renewal	SPWWTP Solids Handling Equipment Removal	The old RDP Lime Stabilization biosolids process equipment has not been used for many years and no longer is operable. This equipment should be removed and recycled making way for other solids handling upgrades pending the outcome of the Biosolids Options Study.	\$400,000	S	Res	\$0	\$0	\$0	\$0	\$50,000	\$100,000	\$150,000
23-02	Study	Bazan Bay Outfall Inspection	Follow-up electromagnetic inspection of Bazan Bay Outfall based upon the 2018 inspection.	\$200,000	S	Res	\$0	\$0	\$0	\$200,000	\$0	\$0	\$200,000
<b>PUMP STATIONS</b>													
21-02	Renewal	Sidney Pump Station Wet Well Upgrades	The existing inlet gate to the wet well and the forcemain knife gate valves are seized and need to be replaced, and the catwalk in the wet well needs to be cleaned and painted to protect it from corrosion.	\$300,000	S	Res	\$0	\$50,000	\$250,000	\$0	\$0	\$0	\$300,000
<b>GENERAL</b>													
19-03	Renewal	Corrosion Prevention Program	In conjunction with the RWS and JdF system a corrosion protection program to assess and monitor assets susceptible to corrosion	\$120,000	S	Res	\$20,000	\$20,000	\$0	\$0	\$0	\$60,000	\$80,000
19-06	Renewal	Odour Control Upgrades	Based upon the 2018 KWL Odour Control Program study, upgrades to odour control systems like the biofilter at SPWWTP will be undertaken.	\$575,000	S	Res	\$150,000	\$150,000	\$400,000	\$0	\$0	\$0	\$550,000
21-04	Replacement	Voice Radio Replacement	Replacement of the voice radios, in coordination with the RWS, SPW, JDF, and Core Area services.	\$35,000	E	ERF	\$0	\$17,500	\$17,500	\$0	\$0	\$0	\$35,000
18-10	Replacement	Equipment Replacement - Annual Provisional	Funds are required for emergency replacement of equipment that is unplanned and outside maintenance contingencies.	\$750,000	S	ERF	\$0	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$750,000
<b>GRAVITY SEWERS &amp; MANHOLES</b>													
20-03	Renewal	Trunk Sewer Relining	Based upon CCTV inspection, high priority relining of about 1,300m of 500mm dia asbestos cement sewer will start in 2020. Another 800m may need to be relined within the next 5 years.	\$2,200,000	S	Res	\$1,100,000	\$1,100,000	\$0	\$0	\$500,000	\$500,000	\$2,100,000
20-04	Renewal	Manhole Repairs and Replacement	Based upon inspections, high priority repairs and relining will start on some MH's in Central Saanich and Sidney 2020. Other repairs/relining will be scheduled in the next 5 years.	\$500,000	S	Res	\$475,000	\$225,000	\$0	\$0	\$250,000	\$0	\$475,000
<b>PRESSURE PIPES &amp; APPURTENANCES</b>													
<b>DEVELOPMENT COST CHARGE (DCC) PROJECTS</b>													
19-04	Renewal	Asset Management Plan Update	Update the asset management plan to inform future works - DCC Share.	\$100,000	S	Res	\$100,000	\$100,000	\$0	\$0	\$0	\$0	\$100,000
19-04	Renewal	Asset Management Plan Update	Update the asset management plan to inform future works - Cap Reserve Share	\$30,000	S	Res	\$30,000	\$30,000	\$0	\$0	\$0	\$0	\$30,000
23-01	Renewal	DCC Program - 5-year Update	5-year update of the DCC program.	\$50,000	S	Res	\$0	\$0	\$0	\$0	\$50,000	\$0	\$50,000
<b>GRAND TOTAL</b>				<b>\$8,830,000</b>			<b>\$2,990,000</b>	<b>\$4,257,500</b>	<b>\$967,500</b>	<b>\$400,000</b>	<b>\$1,535,000</b>	<b>\$810,000</b>	<b>\$7,970,000</b>

**Service: 3.718**      **Saanich Peninsula Wastewater**

<b>Proj. No.</b> 16-06	<b>Capital Project Title</b> Biosolids Treatment & Disposal Options Study	<b>Capital Project Description</b> Study to determine viable options for treatment and disposal of biosolids from the SPWWTP.
<b>Asset Class</b> S	<b>Board Priority Area</b> Climate Action & Environmental Stewardship	<b>Corporate Priority Area</b> Wastewater
<b>Project Rationale</b> A study to determine viable options for treatment and disposal of biosolids from the SPWWTP will be undertaken.		

<b>Proj. No.</b> 18-10	<b>Capital Project Title</b> Equipment Replacement - Annual Provisional	<b>Capital Project Description</b> Funds are required for emergency replacement of equipment that is unplanned and outside maintenance contingencies.
<b>Asset Class</b> S	<b>Board Priority Area</b> Climate Action & Environmental	<b>Corporate Priority Area</b> Wastewater
<b>Project Rationale</b> Funds are required for emergency replacement of equipment that is unplanned and outside maintenance contingencies.		

<b>Proj. No.</b> 19-01	<b>Capital Project Title</b> SPWWTP Replacement of Rotary Presses	<b>Capital Project Description</b> Assess dewatering options of sludge and implement prior to possible failure of the rotary presses.
<b>Asset Class</b> S	<b>Board Priority Area</b> Climate Action & Environmental	<b>Corporate Priority Area</b> Wastewater
<b>Project Rationale</b> The 2013 Stantec condition assessment of the SPWWTP highlighted that the rotary presses will reach their end of life approximately 2020. It is proposed to replace the rotary presses before they fail so that the SPWWTP can maintain operation. Funding is required to assess replacement thickening options (2019) and complete the design and installation of new replacement units (2020).		

<b>Proj. No.</b> 19-03	<b>Capital Project Title</b> Corrosion Prevention Program	<b>Capital Project Description</b> In conjunction with the RWS and JdF system a corrosion protection program to assess and monitor assets susceptible to corrosion
<b>Asset Class</b> S	<b>Board Priority Area</b> Climate Action & Environmental	<b>Corporate Priority Area</b> Wastewater
<b>Project Rationale</b> The Saanich Peninsula Wastewater system is comprised of numerous steel infrastructure among other materials. The Regional Water and Juan du Fuca water systems will be utilizing a corrosion protection program in 2018 that the SPWW system can be assessed and monitored as well. Funds are required to retain a corrosion prevention specialist to produce a program for assessing and monitoring corrosion prevention within the Saanich Peninsula Wastewater system.		

**Service: 3.718** **Saanich Peninsula Wastewater**

<b>Proj. No.</b> 19-04	<b>Capital Project Title</b> Asset Management Plan Update	<b>Capital Project Description</b> Update the asset management plan to inform future works - DCC Share.
<b>Asset Class</b> S	<b>Board Priority Area</b> Climate Action & Environmental	<b>Corporate Priority Area</b> Wastewater
<b>Project Rationale</b> An update to the strategic plan to inform future works will be undertaken.		

<b>Proj. No.</b> 19-06	<b>Capital Project Title</b> Odour Control Upgrades	<b>Capital Project Description</b> Based upon the 2018 KWL Odour Control Program study, upgrades to odour control systems like the biofilter at SPWWTP will be undertaken.
<b>Asset Class</b> S	<b>Board Priority Area</b> Climate Action & Environmental	<b>Corporate Priority Area</b> Wastewater
<b>Project Rationale</b> In 2017 KWL was retained to conduct an audit of the odour control systems in the Core Area and Saanich Peninsula Wastewater systems. KWL made recommendations on remediation, works include: SPWWTP odour control management study and Sidney and Keating PS ventilation study (2019); SPWWTP Odour Control Improvements Design (2020); SPWWTP Odour Control Improvements Construction (2021).		

<b>Proj. No.</b> 20-01	<b>Capital Project Title</b> Isolation Valve Installation for Oxidation Ditches	<b>Capital Project Description</b> To maintain operator safety isolation valves are required prior to the oxidation ditches at the SPWWTP.
<b>Asset Class</b> S	<b>Board Priority Area</b> Climate Action & Environmental	<b>Corporate Priority Area</b> Wastewater
<b>Project Rationale</b> The oxidation ditches at SPWWTP currently have outlet piping with no isolation valves to allow for repairs. Funding is required to procure two 600mm diameter valves and install outside the oxidation ditches.		

<b>Proj. No.</b> 20-02	<b>Capital Project Title</b> Replace Aerators in Oxidation Ditches	<b>Capital Project Description</b> The existing 75hp aerators are at end of life and need to be upsized to 100hp to provide additional dissolved oxygen for future loading/increased strength of the wastewater.
<b>Asset Class</b> E	<b>Board Priority Area</b> Climate Action & Environmental	<b>Corporate Priority Area</b> Wastewater
<b>Project Rationale</b> The current aerators are at the end of life and are undersized necessitating replacement to maintain the treatment capacity of the existing WWTP. Funds are required to procure and install new aerators.		



**Service: 3.718** **Saanich Peninsula Wastewater**

<b>Proj. No.</b> 20-03	<b>Capital Project Title</b> Trunk Sewer Relining	<b>Capital Project Description</b> Based upon CCTV inspection, high priority relining of about 1,300m of 500mm dia asbestos cement sewer will start in 2020. Another 800m may need to be relined within the next 5 years.
<b>Asset Class</b> S	<b>Board Priority Area</b> Climate Action & Environmental	<b>Corporate Priority Area</b> Wastewater
<b>Project Rationale</b> The trunk sewer mains were inspected in 2018-2019 resulting in approximately 1,300 m of 500 mm diameter asbestos cement sewer pipe requiring relining to maintain integrity. Funds are required to retain a contractor to conduct the pipe relining.		

<b>Proj. No.</b> 20-04	<b>Capital Project Title</b> Manhole Repairs and Replacement	<b>Capital Project Description</b> Based upon inspections, high priority repairs and relining will start on some MH's in Central Saanich and Sidney 2020. Other repairs/relining will be scheduled in the next 5 years.
<b>Asset Class</b> S	<b>Board Priority Area</b> Climate Action & Environmental	<b>Corporate Priority Area</b> Wastewater
<b>Project Rationale</b> During the trunk sewer main inspections in 2018-2019, the manholes were inspected as well. A number of manholes were identified with major defects requiring repairs or relining, mostly in Central Saanich and Sidney. Funds are required to retain a contractor to carry out manhole repairs.		

<b>Proj. No.</b> 20-06	<b>Capital Project Title</b> SPWWTP Road Upgrades & Repairs	<b>Capital Project Description</b> The existing asphalt road at the SPWWTP requires some repairs and road extension around the clarifier tank.
<b>Asset Class</b> S	<b>Board Priority Area</b> Climate Action & Environmental	<b>Corporate Priority Area</b> Wastewater
<b>Project Rationale</b> The SPWWTP site's access road and existing bin loading area is having pavement failure, additionally, the gravel route around the facility is being used more often to alleviate traffic along the bin hauling route and it is creating dust. Funds are required to fix failed pavement and pave the route around the treatment plant.		

<b>Proj. No.</b> 21-01	<b>Capital Project Title</b> SPWWTP Concrete Tank Repairs	<b>Capital Project Description</b> Stantec completed an assessment and provided recommendations to repair significant internal corrosion in the clarifier, sludge tank, and process drain sump and this project will implement the
<b>Asset Class</b> S	<b>Board Priority Area</b> Climate Action & Environmental	<b>Corporate Priority Area</b> Wastewater
<b>Project Rationale</b> required repairs for significant internal corrosion in the clarifier, sludge tank, and process drain sump and this project will implement the repairs.		

Service: 3.718		Saanich Peninsula Wastewater	
<b>Proj. No.</b> 21-02	<b>Capital Project Title</b> Sidney Pump Station Wet Well Upgrades	<b>Capital Project Description</b> The existing inlet gate to the wet well and the forcemain knife gate valves are seized and need to be replaced. and the	
<b>Asset Class</b> S	<b>Board Priority Area</b> Climate Action & Environmental	<b>Corporate Priority Area</b> Wastewater	
<b>Project Rationale</b> <i>The existing inlet gate to the wet well and the forcemain knife gate valves are seized and need to be replaced, and the catwalk in the wet well needs to be cleaned and painted to protect it from corrosion.</i>			
<b>Proj. No.</b> 21-03	<b>Capital Project Title</b> SPWWTP Screenings Bin	<b>Capital Project Description</b> Debris from the raw sewage screenings is being co-mingled with dewatered sludge. It must be separated into its own bin so that dewatered sludge can be	
<b>Asset Class</b> S	<b>Board Priority Area</b> Climate Action & Environmental	<b>Corporate Priority Area</b> Wastewater	
<b>Project Rationale</b> <i>Debris from the raw sewage screenings is being co-mingled with dewatered sludge. It must be separated into its own bin so that dewatered sludge can be beneficially re-used.</i>			
<b>Proj. No.</b> 21-04	<b>Capital Project Title</b> Voice Radio Replacement	<b>Capital Project Description</b> Replacement of the voice radios, in coordination with the RWS, SPW, JDF, and Core Area services.	
<b>Asset Class</b> E	<b>Board Priority Area</b> Climate Action & Environmental	<b>Corporate Priority Area</b> Wastewater	
<b>Project Rationale</b> <i>End of life replacement of the voice radios, in coordination with the RWS, SPW, JDF, and Core Area services.</i>			
<b>Proj. No.</b> 21-05	<b>Capital Project Title</b> SPWWTP HVAC Fan Replacements	<b>Capital Project Description</b> The HVAC Fans were identified in Stantec's 2014 condition assessment as requiring replacement, funds are required to reassess the fans, design	
<b>Asset Class</b> S	<b>Board Priority Area</b> Climate Action & Environmental	<b>Corporate Priority Area</b> Wastewater	
<b>Project Rationale</b> <i>The HVAC Fan's were identified in Stantec's 2014 condition assessment as requiring replacement, funds are required to reassess the fans, design replacement and carry out replacement.</i>			
<b>Proj. No.</b> 23-01	<b>Capital Project Title</b> DCC Program - 5-year Update	<b>Capital Project Description</b> 5-year update of the DCC program.	
<b>Asset Class</b> S	<b>Board Priority Area</b> Climate Action & Environmental	<b>Corporate Priority Area</b> Wastewater	
<b>Project Rationale</b> <i>This item is for a planned review and update of the DCC Program.</i>			

**Service: 3.718** **Saanich Peninsula Wastewater**

<b>Proj. No.</b> 23-02	<b>Capital Project Title</b> Bazan Bay Outfall Inspection	<b>Capital Project Description</b> Follow-up electromagnetic inspection of Bazan Bay Outfall based upon the 2018 inspection.
<b>Asset Class</b> S	<b>Board Priority Area</b> Climate Action & Environmental	<b>Corporate Priority Area</b> Wastewater
<b>Project Rationale</b> Follow-up electromagnetic inspection of Bazan Bay Outfall based upon the 2018 inspection.		

<b>Proj. No.</b> 23-03	<b>Capital Project Title</b> SPWWTP Solids Handling Equipment Removal	<b>Capital Project Description</b> The old RDP Lime Stabilization biosolids process equipment has not been used for many years and no longer is operable. This equipment should be removed and recycled making way for other solids handling upgrades pending
<b>Asset Class</b> S	<b>Board Priority Area</b> Climate Action & Environmental	<b>Corporate Priority Area</b> Wastewater
<b>Project Rationale</b> The old RDP Lime Stabilization biosolids process equipment has not been used for many years and no longer is operable. This equipment should be removed and recycled making way for other solids handling upgrades pending the outcome of the Biosolids Options Study.		

<b>Proj. No.</b> 21-04	<b>Capital Project Title</b> Voice Radio Replacement	<b>Capital Project Description</b> Replacement of the voice radios, in coordination with the RWS, SPW, JDF, and Core Area services.
<b>Asset Class</b> E	<b>Board Priority Area</b> Climate Action & Environmental	<b>Corporate Priority Area</b> Wastewater
<b>Project Rationale</b> End of life replacement of the voice radios, in coordination with the RWS, SPW, JDF, and Core Area services.		

**CAPITAL REGIONAL DISTRICT**  
**FIVE YEAR CAPITAL EXPENDITURE PLAN SUMMARY - 2021 to 2025**

<b>Service No.</b>	<b>3.718</b>							
<b>Saanich Peninsula Wastewater</b>		<b>Carry Forward from 2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>TOTAL</b>

**EXPENDITURE**

Buildings	B	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Equipment	E	\$175,000	\$192,500	\$17,500	\$0	\$0	\$0	\$210,000
Land	L	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Engineered Structures	S	\$2,815,000	\$4,065,000	\$950,000	\$400,000	\$1,535,000	\$810,000	\$7,760,000
Vehicles	V	\$0	\$0	\$0	\$0	\$0	\$0	\$0
		<b>\$2,990,000</b>	<b>\$4,257,500</b>	<b>\$967,500</b>	<b>\$400,000</b>	<b>\$1,535,000</b>	<b>\$810,000</b>	<b>\$7,970,000</b>

**SOURCE OF FUNDS**

Capital Funds on Hand	Cap	\$100,000	\$100,000	\$0	\$0	\$0	\$0	\$100,000
Debenture Debt (New Debt Only)	Debt	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Equipment Replacement Fund	ERF	\$175,000	\$342,500	\$167,500	\$150,000	\$150,000	\$150,000	\$960,000
Grants (Federal, Provincial)	Grant	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Donations / Third Party Funding	Other	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Reserve Fund	Res	\$2,715,000	\$3,815,000	\$800,000	\$250,000	\$1,385,000	\$660,000	\$6,910,000
		<b>\$2,990,000</b>	<b>\$4,257,500</b>	<b>\$967,500</b>	<b>\$400,000</b>	<b>\$1,535,000</b>	<b>\$810,000</b>	<b>\$7,970,000</b>