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**PORT RENFREW UTILITY SERVICES COMMITTEE**  
Notice of Meeting on Monday, November 7, 2016 at 7 p.m.  
Port Renfrew Recreation Centre

Director Mike Hicks (Chair)   Karl Ablack   Maurice Tremblay   Kristine Pearson  
Wayne Smith   Anne Tremblay

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**AGENDA**

1. Approval of Agenda
2. Adoption of Minutes of April 25, 2016
3. 2017 Operating and Capital Budget (staff report)
4. Water System Improvements Update – Phases 1 and 2 (information report)
5. Low Water Pressure Issue, Opsrey Place (staff report)
6. Technical and Operational Review of a Conceptual Dedicated Water Supply Pipe (information report)
7. Tidal Influence on Wastewater Treatment Plant Flows (information report)
8. Water Service User Fee – Single Family Equivalent Allocations (staff report)
9. Correspondence
  1. Service Connection Request
  2. Pacheedaht First Nation
10. New Business
11. Adjournment

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To ensure a quorum, advise Lorrie Siemens 250.360.3087 or [lsiemens@crd.bc.ca](mailto:lsiemens@crd.bc.ca) if you cannot attend.



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**Minutes of a Meeting of the Port Renfrew Utility Services Committee  
Held April 25, 2016 at the Port Renfrew Recreation Centre, Port Renfrew, BC**

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**PRESENT:** **Committee Members:** K. Ablack, CRD Regional Director, M. Hicks, A. Tremblay, W. Smith, M. Tremblay, K. Pearson  
**Staff:** Malcolm Cowley, Senior Manager, Infrastructure Engineering; M. McCrank, Senior Manager, Infrastructure Operations, S. Mason, Manager, Water Engineering and Planning, C. Preece, Manager, Core Area Operations, L. Siemens (recorder)  
**Eight members of the Public**

The meeting was called to order at 6 p.m.

**1. Approval of Agenda**

**MOVED** by Director Hicks, **SECONDED** by A. Tremblay,  
That the agenda be approved as distributed.

**CARRIED**

**2. Election of Chair**

M. Cowley called for nominations for Chair of the Port Renfrew Utility Services Committee for a one year term. Director Hicks was nominated and agreed to stand. Nominations were called for two more times, and hearing none, Director Hicks was elected as chair.

Nominations were called for Vice-Chair of the Port Renfrew Utility Services Committee for a one year term. Anne Tremblay was nominated and agreed to stand. Nominations were called for two more times, and hearing none, Anne Tremblay was elected as Vice-Chair.

Director Hicks then assumed the chair.

**3. Adoption of Minutes of August 4, 2015**

**MOVED** by A. Tremblay, **SECONDED** by K. Ablack,  
That the minutes of August 4, 2015 be adopted as distributed.

**CARRIED**

**4. Adoption of Minutes of September 21, 2015**

**MOVED** by A. Tremblay, **SECONDED** by W. Smith,  
That the minutes of September 21, 2015 be adopted as distributed.

**CARRIED**

**5. Water System Improvement Update**

S. Mason presented a written report.

**MOVED** by W. Smith, **SECONDED** by M. Tremblay,  
That the Port Renfrew Utility Services Committee receive the report for information.

**CARRIED**

**6. Amendment of Bylaw No. 1747 to Include a 20 Lot Subdivision into the Port Renfrew Water Local Service Area**

K. Ablack excused himself from the meeting citing a conflict of interest as the report is referring to a development proposal in which he has an interest.

M. Cowley presented a written report.

**MOVED** by M. Tremblay, **SECONDED** by W. Smith,  
That the Port Renfrew Utility Services Committee recommend to the Electoral Area Services Committee and the Capital Regional District Board that Bylaw No. 4055, "Port Renfrew Water Local Service Establishment Bylaw No. 1, 1989, Amendment Bylaw No. 4, 2016" be introduced and read a first and second time, and read a third time.

**CARRIED**

**MOVED** by A. Tremblay, **SECONDED** by M. Tremblay,  
That the Port Renfrew Utility Services Committee direct staff to investigate the technical merits of having a dedicated supply pipe to the storage reservoir.

**CARRIED**

K. Ablack re-joined the meeting.

**7. Water and Wastewater Operations Report – Fall/Winter 2015-2016**

M. McCrank presented a written report.

**MOVED** by K. Ablack, **SECONDED** by A. Tremblay,  
That the Port Renfrew Utility Services Committee receive the report for information.

**CARRIED**

**8. Port Renfrew Wastewater Treatment Plant Update**

M. Cowley presented a written report.

Staff were requested to investigate if high flows correspond with tides.

K. Pearson joined the meeting at 7 p.m.

**MOVED** by Director Hicks, **SECONDED** by M. Tremblay,  
That the Port Renfrew Utility Services Committee receive the report for information and direct staff to monitor flows during the summer taking into consideration the tides and revisit the issue next Fall.

**CARRIED**

9. **New Business**

A discussion took place on a recent request to obtain a list of Single Family Equivalents in the Port Renfrew service area. It was noted that the CRD Information Services staff response advised that through the Freedom of Information process, the information could not be released.

**MOVED** by A. Tremblay, **SECONDED** by W. Smith,  
That the Port Renfrew Utility Services Committee direct staff to provide a list of Single Family Equivalents in the Port Renfrew service area.

**CARRIED**

**MOVED** by Director Hicks, **SECONDED** by W. Smith,  
That the Port Renfrew Utility Services Committee direct staff to prepare a report on the options and implications for boosting system pressure, either through a booster station on Osprey Place or at the storage tank or other location.

**CARRIED**

**MOVED** by A. Tremblay, **SECONDED** by K. Ablack,  
That the Port Renfrew Utility Services Committee direct staff to amend the Port Renfrew Utility Services Committee bylaw to remove the solid waste service and that it be moved to the Port Renfrew Fire Protection and Emergency Response Service Commission.

**CARRIED**

10. **Adjournment**

**MOVED** by M. Tremblay, **SECONDED** by A. Tremblay,  
That the meeting be adjourned at 7:25 p.m.



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**REPORT TO PORT RENFREW UTILITY SERVICES COMMITTEE  
MEETING OF MONDAY, NOVEMBER 7, 2016**

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**SUBJECT     2017 OPERATING AND CAPITAL BUDGETS**

**ISSUE**

In accordance with Bylaw 2339, this report provides a synopsis of the 2017 operating and capital budgets, highlighting significant proposed changes related to operational expenditures, debt charges, capital expenditures and revenue for the Port Renfrew Utility Services.

**BACKGROUND**

There are five individual service budgets that are presented in this report which are under the jurisdiction of the Port Renfrew Utility Services Committee including the following:

1. Street Lighting Local Service – pertains to the operation of street lights for the street light service area.
2. Refuse Disposal Local Service – pertains to the operation and capital plan for the refuse service area.
3. Water Local Service – pertains to the operation and capital plan for the entire water service area.
4. Snuggery Cove Water Local Service – was created for the sole purpose of servicing debt relating to the expansion of the Port Renfrew water system to the Snuggery Cove area.
5. Sewer Local Service – pertains to the operation and capital plan for the sewer service area.

**PORT RENFREW STREET LIGHTING LOCAL SERVICE**

**2016 Estimated Actuals Operations versus Budgeted Expense**

The estimated actual operating cost is projected to be \$1,910 under budget as a result of:

- Lower than budgeted expenditures for:
  - Electricity (\$580)
  - Unspent contingency (\$1,350)
- Higher than budgeted expenditures for:
  - Other operating expenses (\$20)

The estimated actual revenue is projected to be \$170 higher than budgeted as a result of:

- Higher than budget revenue for:
  - Penalties and service charges (\$180)
- Lower than budgeted revenue for:
  - Interest charges (\$10)

This results in a projected year-end net revenue of \$2,080.

### 2017 Operating Expense

An increase in the 2017 operating expense of \$390 (4.4%) is proposed. This is primarily a result of:

- Increases in:
  - Electricity (\$260)
  - Allocations (\$60)
  - Internal labour charges (\$10)
  - Contingency (\$50)
  - Other operating expenses (\$10)

It is proposed that a contingency of \$1,400 be included in the 2017 budget to be used in the event that the operating budget is exceeded. This would happen in the event of an unplanned emergency repair event.

### Capital/Reserve/Debt

Currently there is no capital plan, reserve or debt for this service area.

### 2017 Revenue (User Charge and Parcel Tax)

It is proposed that:

- The projected year-end surplus of \$2,080 be carried forward as revenue in 2017.
- The user charge stay at the same level as 2016 set at \$3,535. Based on 88 single family equivalents (SFE) this equates to \$40.17 per SFE.
- The parcel tax stay at the 2016 level of \$3,535; based on 88 taxable folios, and including the 5.25% surveyor of taxes fee, this equates to \$42.28 per folio.

### Forecast 2018-2021

A five-year operating budget forecast is provided for information. Modest increases are expected to address inflation most notably to electricity costs.

## **PORT RENFREW REFUSE DISPOSAL LOCAL SERVICE**

### 2016 Estimated Actuals Operations versus Budgeted Expense

The estimated actual operating cost is projected to be \$6,930 under budget as a result of:

- Lower than budgeted expenditures for:
  - Contract for services (tipping fees) (\$980)
  - Contracts (hauling & caretaking) (\$3,460)
  - Electricity (\$660)
  - Other operating expenses (\$640)
- Higher than budgeted expenditures for:
  - Internal labour charges (\$1,000)

In addition, the 2016 budget included a contingency of \$2,190.

The estimated actual revenue is projected to be \$2,570 higher than budgeted as a result of higher than budget revenue from sales of recyclables.

This results in a projected year-end net revenue of \$9,500.

#### 2017 Operating Expense

A decrease in the 2017 operating expense of \$1,600 (2.3%) is proposed as follows:

Increases in:

- Contracts (hauling & caretaking) (\$240)
- Allocations (\$330)
- Internal labour charges (\$10)
- Other operating expenses (\$10)

Decrease in:

- Contingency (\$2,190)

#### 2017 Capital/Reserve/Debt

##### Equipment Replacement Fund (ERF)

It is proposed that the transfer to the ERF remain at the 2016 level of \$1,020. This fund is to be used to pay for the replacement of tools, food waste bins, and equipment. The projected balance in the ERF at the end of 2016 is \$26,860.

##### Capital Reserve Fund (CRF) 1021

It is proposed that the 2016 transfer to the CRF be increased by the net revenue amount of \$9,500 for a total of \$38,180, and that the 2017 transfer to the CRF be reduced to \$8,660. The anticipated balance in the CRF at the end of 2016 is \$48,270.

#### 2017 Revenue (Property Value Tax)

It is proposed that:

- The tax requisition stay at the 2016 level of \$31,200 for a cost per average household of \$87.06.

#### Forecast 2018-2021

A five-year operating budget forecast is provided for information. Increases of 2.0% per year are expected as a result of inflation.

### **PORT RENFREW WATER LOCAL SERVICE**

#### 2016 Estimated Actual Operations versus Budgeted Expense

The estimated actual operating expense is projected to be \$12,580 under budget as a result of:

- Lower than budgeted expenditures for:
  - Repairs & maintenance (\$3,340).

- Allocations – operations (\$1,900)
  - Electricity (\$1,380)
  - Supplies (\$410)
  - Internal time charges (\$4,230)
  - Other operating expenses (\$1,410)
- Higher than budgeted expenditures for:
- Allocations - other (\$90)

The estimated actual operating revenue is projected to be \$300 lower than budgeted as a result of lower than budgeted revenue for penalties/service charges.

This results in projected net revenue of \$12,280.

It is recommended that surpluses are not carried forward to the next year since they cannot be relied upon as a source of funding. Therefore, it is proposed that the 2016 transfer to the Capital Reserve Fund be increased by \$12,280 from \$24,140 as budgeted, to \$36,420.

The service also has an Equipment Replacement Fund (ERF) with a projected year end balance of \$14,750. An ERF may be used only to pay for the replacement of equipment or vehicles. Port Renfrew Water has never used its ERF. Therefore, it is proposed that the balance in the ERF be transferred to the CRF where it can be used for capital improvements, upgrades and for purchases or construction of new assets.

Taking into account the increased transfer to the CRF from operations, and the transfer from the ERF, the balance in the CRF at the end of 2016 is projected to be \$178,060.

### 2017 Operating Expense

An increase in the 2017 operating expense of \$1,450 (1.6%) is proposed. This is the result of:

- Increases in :
    - Allocations - other (\$3,920)
    - Electricity (\$140)
    - Internal time charges (\$180)
    - Other operating expenses (\$250)
- Decreases in:
- Allocations – operations (\$2,610)
  - Supplies (\$430)

### 2017 Reserves

#### Capital Reserve Fund (CRF) 1026

It is proposed that the transfer to the capital reserve fund be reduced by \$8,070 from \$24,140 to \$16,070. This will allow for an adequate level of transfers to the CRF without requiring an increase in User Charges or in the Parcel Tax on a per SFE basis.



2017 Revenue (User Charge and Parcel Tax)

In order to meet operating expenses it is proposed that:

- The user charge increase by \$500 to \$53,250; based on 269.33 (265.33 in 2016) single family equivalents (SFE). This equates to \$197.71 (\$198.81 in 2016).
- The parcel tax remain the same at \$52,740; based on 194 taxable folios (194 in 2016), and including the 5.25% surveyor of taxes fee, this equates to \$286.13 per folio.

Water Capital Projects Plan

2016 Capital Projects Status:

There is a total of \$21,629 remaining from funding for capital projects that have been undertaken since 2013, as shown in Table 1. None of the capital projects have been officially closed so it is not recommended to transfer Capital Funds on hand back to the Capital Reserve Fund at this time.

**Table 1: Summary of Capital Project History – Water Service.**

	<u>Year</u>	<u>Budget</u>	<u>Funding</u>	<u>Spent</u>	<u>Remaining</u>	<u>To CRF</u>
Osprey Place	2013	3,000	3,000	(3,000)	-	-
SAMP Study	2014	5,000	5,000	(1,080)	3,921	-
Well head protection	2015	6,000	6,000	(208)	5,792	-
Chlorine Inj Pump & Meter	2016	10,000	10,000	-	10,000	-
Interest		-	-	-	1,916	-
<b>Total WSV185102</b>		<b>24,000</b>	<b>24,000</b>	<b>(4,288)</b>	<b>21,629</b>	<b>-</b>

1. Osprey Place Pressure Study – the operating pressure on Osprey Place was studied and the findings were presented in a separate staff report for the Committee's consideration.
2. Strategic Asset Management Plan (SAMP) – SAMP's are being prepared for all Local Service Areas and are required to ensure the long-term reliability of the water system. The SAMP will supplement the capacity and reliability work completed in 2015 and document the condition of the system and provide preventative maintenance recommendations to maximize the service life of system components which will minimize costs to the customers. Further, senior levels of government (province and federal) require that applicants seeking grant funding demonstrate existence of an asset management plan.
3. Well Head Protection – The well head protection project is planned to be completed before the end of year 2016.

4. Chlorine Injection Pump and Flow Meter – In 2016 the supply and installation of a chlorine injection pump and flow meter were approved and installed in conjunction with the Phase 1 water system improvements. This work was funded by the Community Works Fund at no cost to the water service.

The following capital work is scheduled for 2017

Strategic Asset Management Plan (carry forward \$4,000, total \$5,000)

The SAMP is scheduled to be completed and presented to the Committee in 2017.

Phase 2 Water System Improvements – Storage Tank (\$320,000 in 2017)

Additional steel storage tank at existing tank site to increase capacity of the water system to facilitate development. This will be funded by contributions from developers.

Forecast 2018-2021

Phase 3, Water System Improvements - TBD (\$300,000 in 2018)

It is anticipated that there will be potential future system improvements related to development within the Port Renfrew water service area. Therefore, the 2017 – 2021 capital plan includes \$300,000 in 2018 to be funded by contributions from developers.

**SNUGGERY COVE WATER SERVICE**

This service was established in 2002 for the sole purpose of servicing debt relating to the expansion of the Port Renfrew water system to the Snuggery Cove area. The debt cost was to be repaid by 43 taxable parcels in the Snuggery Cove area. As a result of recent development, the number of parcels increased to 94 in the 2016 budget year. The Snuggery Cove area is included as part of the Port Renfrew Water Service Area for the purpose of operation of the water system and future capital works.

2016 Estimated Actuals Operations versus Budget

The estimated actual operating expenses and revenues are projected to be at budget.

2017 Operating Expense

The 2017 allocation for finance and corporate services will be \$20 higher than the 2016 amount.

2016 Debt/Capital Reserve

There are no capital reserve funds for this service, and no new debt is planned.

2017 Revenue Impact (Property Value Tax)

The cost of this service is recovered through a property value tax. In 2017 it is proposed that the tax be \$23,770 or \$144.40 per average household (2016 is \$23,700; \$143.97 per average household).

There are no user charges associated with this service. The increase in the tax requisition is the result of having no surplus to carry forward from 2016 into 2017.

Snuggery Cove Water Capital Plan

There is no future capital work planned for this service.

Forecast 2018-2021

A five-year capital and operating budget forecast is provided for information. The Snuggery Cove Water Service will be extinguished when the repayment of the 2004 borrowing for the Port Renfrew water system upgrades and Snuggery extension is complete in 2019.

**PORT RENFREW SEWER LOCAL SERVICE**

2016 Estimated Actuals Operations versus Budgeted Expense

The estimated actual operating expense is projected to be \$9,710 under budget as a result of:

- Lower than budgeted expenditures for:
  - Electricity (\$100)
  - Allocations - operations (\$2,170)
  - Internal time charges (\$1,520)
  - Unused contingency (\$7,390)
  - Other operating expenses (\$1,710)
- Higher than budgeted expenditures for:
  - Grit disposal (\$800)
  - Supplies (\$2,120)
  - Allocations - other (\$260)

Operating revenues are projected to be equal to budget. This will result in projected net revenue of \$9,710. It is proposed that the transfer to the Capital Reserve Fund be increased by \$2,050 from \$2,120 as budgeted, to \$4,170, and that the remaining surplus of \$7,660 be carried forward as revenue in 2017.

2017 Operating Expense

A decrease in the 2017 operating expense of \$4,680 (5.1%) is proposed. This is primarily a result of:

- Increases in:
  - Grit disposal (\$890)
  - Electricity (\$110)
  - Supplies (\$10)
  - Internal time charges (\$70)
- Decreases in:
  - Allocations – operations (\$2,200)
  - Allocations – other (\$2,140)
  - Contingency (\$1,270)
  - Other operating expenses (\$150)

2017 Debt/Reserves

Capital Reserve Fund (CRF) 1044

It is proposed that the transfer to the CRF be set at \$2,580, \$460 over the 2016 budgeted amount.

The service also has an Equipment Replacement Fund (ERF) with a projected year end balance of \$19,280. An ERF may be used only to pay for the replacement of equipment or vehicles. Port Renfrew Sewer has never used its ERF. Therefore, it is proposed that the balance in the ERF be transferred to the CRF where it can be used for capital improvements, upgrades and for purchases or construction of new assets.

2017 Revenue (User Charge and Parcel Tax)

It is proposed that:

- \$7,660 of the projected year-end surplus be carried forward as revenue in 2017.
- The user charge be increased to \$40,755 or \$460 over the 2016 level of \$40,295; based on 94.77 SFE's this equates to \$430.04 per SFE (\$425.19 in 2016).
- The parcel tax remain at the 2016 level set at \$40,295; based on 88 taxable folios and including the 5.25% surveyors tax fee, this equates to \$481.94 per folio.

Sewer Capital Plan

There is a total of \$2,076 remaining from funding for capital projects that have been undertaken since 2014, as shown in Table 2.

**Table 2: Summary of Capital Project History – Sewer Service.**

	<u>Year</u>	<u>Budget</u>	<u>Funding</u>	<u>Spent</u>	<u>Remaining</u>	<u>To CRF</u>
SAMP	2014	5,000	5,000	(3,683)	1,317	1,317
WWTP Upgrade Feasibility	2015	3,500	3,500	(2,977)	523	523
Interest		-	-	-	236	236
<b>Total SSV185138</b>		<b>8,500</b>	<b>8,500</b>	<b>(6,660)</b>	<b>2,076</b>	<b>2,076</b>

The project identified as SAMP involved conducting a wastewater system capacity and reliability review. A report on the findings of this work was delivered to the Committee on June 22, 2015. The WWTP Upgrade Feasibility project was also completed and the report was provided to the Committee on April 25, 2016. Therefore both projects can be closed and the remaining funds can be transferred back into the CRF.

Taking into account the increased transfer to the CRF from operations, the transfer from the ERF, and the transfer from the closed Capital Projects, the balance in the CRF at the end of 2016 is projected to be \$35,910.

The following capital work is scheduled for 2017:

Strategic Asset Management Plan (\$10,000)

Strategic Asset Management Plans (SAMP) are being prepared for all Local Service Areas and are required to ensure the long-term reliability of the wastewater system. The SAMP will document the condition of the system and provide preventative maintenance recommendations to maximize the service life of system components which will minimize costs to the customers. A SAMP is a mandatory requirement by senior governments as for applying for grants.

Forecast 2018-2021

Wastewater Improvements Public Consultation (\$20,000 - 2018)

To engage the residents of Port Renfrew on upcoming projects, an open house will be held to discuss upcoming wastewater projects and the approval process required to borrow funds. Information provided will include the need, rationale and costs of future wastewater projects so that customers can be informed prior to a referendum. The budget for this item is for staff time, presentation materials, notifications, advertisements, open house costs, and referendum costs.

Sewer System Repairs (\$100,000 - 2019)

A smoke test and CCTV inspection of the Port Renfrew sewer system carried out in 2009, identified sections of pipe impacted by root intrusions, broken and cracked pipe and leaking manholes. To reduce the effect of inflow and infiltration on the WWTP capacity during wet weather, funding is required to repair the pipes and manholes.

Wastewater Treatment Plant Structural Assessment (\$35,000 - 2019)

The WWTP is now nearing 50 years old and portion of the structural steel supports and walkway are corroding and needing to be assessed to determine if they are safe. Property damage and/or serious injury to operators could occur should there be a structural failure. The budget for this item is to retain a structural engineer and complete some material testing work.

WWTP Upgrades (\$1,200,000 - 2021)

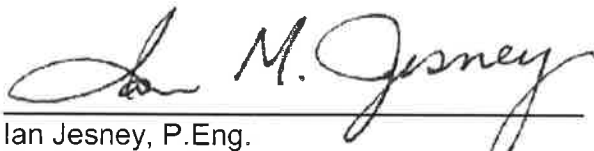
Should a grant can be acquired for this project, the budget for this item includes detailed design, procurement, and construction of WWTP upgrades to renew and improve the operation and performance of the treatment plant to meet the Ministry of Environment's requirements.

**RECOMMENDATION**

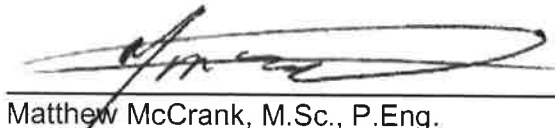
That the Port Renfrew Utility Services Committee recommend to the CRD Board that:

1. The 2017 operating and capital budget for the Port Renfrew Street Lighting Local Service be approved as presented;
2. The 2016 actual revenue and expense for the Port Renfrew Street Lighting Local Service be balanced on the 2017 contingency;


3. The 2017 operating and capital budget for the Port Renfrew Refuse Disposal Local Service be approved as presented;
4. The 2016 actual revenue and expense for the Port Renfrew Refuse Disposal Local Service be balanced on the 2016 Transfer to Capital Reserve fund;
5. The 2017 operating and capital budget for the Port Renfrew Water Local Service be approved as presented;
6. The 2016 actual revenue and expense for the Port Renfrew Water Local Service be balanced on the 2016 Transfer to Capital Reserve fund;
7. The 2017 operating and capital budget for the Snuggery Cove Water Local Service be approved as presented;
8. The property value tax be increased to \$23,770 (2016 \$23,700) for the Snuggery Cove Water Local Service;
9. The 2016 actual revenue and expense for the Snuggery Cove Water Local Service be balanced on the 2017 requisition.
10. The 2017 operating and capital budget for the Port Renfrew Sewer Local Service be approved as presented; and
11. The 2016 actual revenue and expense for the Port Renfrew Sewer Local Service be balanced on the 2016 transfer to Capital Reserve Fund.



Ian Jesney, P.Eng.  
Sr. Manager, Infrastructure Engineering  
Integrated Water Services



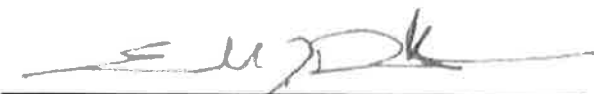
Matthew McCrank, M.Sc., P.Eng.  
Sr. Manager, Infrastructure Operations  
Integrated Water Services



Amber Genero MA, CPA, CMA  
A/Manager, Financial Planning & Analysis  
Financial Services



Tom Watkins, B. Sc.  
Manager, Environmental Resource  
Management Policy and Planning



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

CP/SM/MC/TW:ls  
Attachments: 4

# **CAPITAL REGIONAL DISTRICT**

## **2017 Budget**

### **Port Renfrew Street Lighting**

#### **COMMITTEE REVIEW**

Compiled and Presented by CRD Finance

Nov 2016

**DEFINITION:**

To provide, operate and maintain street lighting for the Port Renfrew Street Lighting Local Service Area.  
Bylaw No. 1746, November 8, 1989; Bylaw No. 1986, January 29, 1992.

**PARTICIPATION:**

Port Renfrew Local Service Area # 4, D-762.

**MAXIMUM LEVY:**

The greater of \$7,500 or the amount that could be raised by a property value tax rate of \$3.42 / \$1,000 when applied to the net taxable value of land and improvements to a maximum of \$66,930

**MAXIMUM CAPITAL DEBT:**

N/A

**COMMISSION:**

Port Renfrew Street Lighting Commission established by Bylaw No. 1770.  
Port Renfrew Utility Services Committee (Juan de Fuca EA) established by Bylaw No. 3281 (September 14, 2005).

**USER CHARGE:**

50% of operating cost to be imposed as an annual user fee to each connected property.

**PARCEL TAX:**

50% of operating costs are collected as a parcel tax to be charged to every parcel within the Local Service Area.



Port Renfrew Street Lighting	2016 BOARD BUDGET		2016 ESTIMATED ACTUAL	BUDGET REQUEST				FUTURE PROJECTIONS				
				2017 CORE BUDGET	2017 ONGOING	2017 ONE-TIME	2017 TOTAL	2018	2019	2020	2021	
	<u>OPERATING COSTS:</u>											
	Electricity	6,480	5,900	6,740	-	-	6,740	6,970	7,170	7,370	7,590	
	Allocations	390	390	450	-	-	450	460	470	480	490	
	Internal Labour Charges	470	470	480	-	-	480	490	500	510	520	
	Contingency	1,350	-	1,400	-	-	1,400	-	-	-	-	
	Other Operating Expenses	100	120	110	-	-	110	110	110	110	110	
	TOTAL COSTS	8,790	6,880	9,180	-	-	9,180	8,030	8,250	8,470	8,710	
	*Percentage Increase over prior year						4.4%	-12.5%	2.7%	2.7%	2.8%	
<u>FUNDING SOURCES (REVENUE)</u>												
Estimated balance C/F from 2016 to 2017	-	2,080	(2,080)	-	-	-	(2,080)	-	-	-	-	
Balance C/F from 2015 to 2016	(1,680)	(1,680)	-	-	-	-	-	(4,000)	(4,110)	(4,220)	(4,340)	
User Charges	(3,535)	(3,535)	(3,535)	(3,535)	-	-	(3,535)	(30)	(30)	(30)	(30)	
Revenue - Other	(40)	(210)	(30)	(30)	-	-	(30)	-	-	-	-	
TOTAL REVENUE	(5,255)	(5,425)	(3,565)	(3,565)	-	-	(3,565)	(4,030)	(4,140)	(4,250)	(4,370)	
<u>REQUISITION - PARCEL TAX</u>												
	(3,535)	(3,535)	(3,535)	(3,535)	-	-	(3,535)	(4,000)	(4,110)	(4,220)	(4,340)	
*Percentage Increase over prior year								13.2%	2.8%	2.7%	2.8%	
User Charges								13.2%	2.8%	2.7%	2.8%	
Requisition								13.2%	2.8%	2.7%	2.8%	
Combined												

Service: 1.232 Port Renfrew Street Lighting	Levy Statistics
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<u>Year</u>	<u>Taxable Folios</u>	<u>Parcel Tax</u>	<u>SFE's</u>	<u>User Charge</u>	<u>Assessments \$(000's)</u>
2011	86	\$31.34	86	\$24.00	19,973
2012	86	\$41.24	86	\$39.19	19,973
2013	87	\$35.14	87	\$33.38	19,973
2014	87	\$35.98	87	\$34.18	18,950
2015	87	\$42.77	87	\$40.63	20,000
2016	88	\$42.28	88	\$40.17	19,570
2017	88	\$42.28	88	\$40.17	

# **CAPITAL REGIONAL DISTRICT**

## **2017 Budget**

### **Port Renfrew Refuse Disposal**

#### **Committee Review**

Compiled and Presented by CRD Finance

Nov 2016

Service: 1.523	Port Renfrew Refuse Disposal	Committee: Electoral Area Services
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**DEFINITION:**

To provide, maintain, operate and regulate disposal facilities. Local Service Bylaw No. 1745 (November 8, 1989), latest amendment 3357 (February 19, 2007).

**SERVICE DESCRIPTION:**

Provision of recycling and solid waste transfer station operations in Port Renfrew.

**PARTICIPATION:**

Local Service Area #3 of the Electoral Area of Sooke B(762)

**MAXIMUM LEVY:**

Greater of \$45,000 or \$15.18 / \$1,000 to a maximum of \$978,202 on actual assessments for land and improvements.

**MAXIMUM CAPITAL DEBT:**

N/A

**COMMISSION:**

Bylaw No. 3280, continues Port Renfrew Local Services Committee (September 14, 2005).  
 Bylaw No. 3707, discontinues Local Services Committee (June 9, 2010).  
 Bylaw No. 3745, continues under Port Renfrew Utility Committee (December 8, 2010).

**RESERVE FUND:**

Bylaw No. 2665 - Port Renfrew Solid Waste Removal and Disposal Capital Reserve Fund.

LEVY STATISTICS

<u>Year</u>	<u>Converted Assessments</u>	<u>Avg Household Assessment</u>	<u>Requisition</u>	<u>Cost per Avg Household</u>
2012	6,465,362	208,968	29,973	\$96.88
2013	6,104,499	187,810	29,973	\$92.21
2014	5,867,872	179,954	29,973	\$91.92
2015	6,981,334	189,080	31,200	\$84.50
2016	7,274,945	203,010	31,200	\$87.06
2017			31,200	

PORT RENFREW REFUSE DISPOSAL	2016		BUDGET REQUEST				FUTURE PROJECTIONS			
	BOARD BUDGET	ESTIMATED ACTUAL	2017 CORE BUDGET	2017 ONGOING	2017 ONE-TIME	2017 TOTAL	2018	2019	2020	2021
OPERATING COSTS:										
Contract for Services	19,400	18,420	19,400	-	-	19,400	19,790	20,190	20,590	21,000
Contracts	40,800	37,340	41,040	-	-	41,040	41,860	42,700	43,550	44,420
Allocations	2,760	2,760	3,090	-	-	3,090	3,150	3,210	3,270	3,340
Electricity	1,190	530	1,190	-	-	1,190	1,210	1,230	1,250	1,280
Internal Labour Charges	560	1,560	570	-	-	570	580	590	610	620
Other Operating Expenses	2,920	2,280	2,930	-	-	2,930	2,980	3,030	3,080	3,130
Contingency	2,190	-	-	-	-	-	-	-	-	-
TOTAL OPERATING COSTS	69,820	62,890	68,220	-	-	68,220	69,570	70,950	72,350	73,790
*Percentage Increase over prior year						-2.3%	2.0%	2.0%	2.0%	2.0%
CAPITAL / RESERVE										
Transfer to Equipment Replacement Fund	1,020	1,020	1,020	-	-	1,020	1,020	1,020	1,020	1,020
Transfer to Capital Reserve Fund	28,680	38,180	8,660	-	-	8,660	8,550	8,450	8,350	8,230
TOTAL CAPITAL / RESERVES	29,700	39,200	9,680	-	-	9,680	9,570	9,470	9,370	9,250
TOTAL COSTS	99,520	102,090	77,900	-	-	77,900	79,140	80,420	81,720	83,040
Internal Recovery	(15,000)	(15,000)	(15,000)	-	-	(15,000)	(15,000)	(15,000)	(15,000)	(15,000)
NET COSTS	84,520	87,090	62,900	-	-	62,900	64,140	65,420	66,720	68,040
FUNDING SOURCES (REVENUE)										
Estimated balance c/f from 2016 to 2017	-	-	-	-	-	-	-	-	-	-
Balance c/fwd from 2015 to 2016	(19,070)	(19,070)	-	-	-	-	-	-	-	-
Sale - Recyclables	(2,550)	(5,120)	-	-	-	-	-	-	-	-
Recovery Cost	(31,200)	(31,200)	(31,200)	-	-	(31,200)	(31,820)	(32,460)	(33,110)	(33,770)
Other Revenue	(50)	(50)	(50)	-	-	(50)	(50)	(50)	(50)	(50)
Grants in Lieu of Taxes	(450)	(450)	(450)	-	-	(450)	(450)	(450)	(450)	(450)
TOTAL REVENUE	(53,320)	(55,890)	(31,700)	-	-	(31,700)	(32,320)	(32,960)	(33,610)	(34,270)
REQUISITION	(31,200)	(31,200)	(31,200)	-	-	(31,200)	(31,820)	(32,460)	(33,110)	(33,770)
*Percentage increase over prior year requisition						0.0%	2.0%	2.0%	2.0%	2.0%

**CAPITAL BUDGET FORM**  
**2017 & Forecast 2018 to 2021**

**Service #:** 1.523  
**Service Name:** Port Renfrew Refuse Disposal

<b>Project No.</b>	The first two digits represent the first year the project was in the capital plan.
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Capital Expenditure Type
New Construction/ Project: Expenditure for new asset only
Renewal: Expenditure replaces an existing asset and extends the service ability or enhances technology in delivering that service
Replacement: Expenditure replaces an existing asset

[illegible]

Funding Source Codes
Debt
ERF
Grant
Cap
Other
Res
STLoan

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

Service: 1.523	Port Renfrew Refuse
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17-01      **Refuse Collection Containers Replacement**      \$20,000

Replacing the large (40 cubic yard) metal containers used at the Port Renfrew transfer station to collect and transport refuse and recyclable materials from the community to landfill and recycling facilities. The bins currently in use are approaching the end of their usable lifespan and need to be replaced in order to ensure the continuity of service to the community.



**Port Renfrew Refuse Reserves  
Summary Schedule  
2017 - 2021 Financial Plan**

**Reserve/Fund Summary**

	2016 Estimate	Budget			
		2017	2018	2019	2020
Equipment Replacement Fund	26,858	27,878	28,898	29,918	30,938
	48,271	36,931	45,481	53,931	62,281
Capital Reserve Fund					
	75,130	64,810	74,380	83,850	93,220
					102,470

## Reserve Schedule

Reserve Fund: 1.523 Port Renfrew Refuse Disposal Capital Reserve Fund - Bylaw 2665

### Reserve Cash Flow

Fund: 1021 Fund Center: 101365

	Estimate	Budget			
		2017	2018	2019	2020
Beginning Balance	10,091	48,271	36,931	45,481	53,931
Transfer to Cap Fund (Based on Capital Plan)	-	(20,000)	-	-	-
Transfer from Ops Budget	38,180	8,660	8,550	8,450	8,350
Interest Income*	-	-	-	-	-
Ending Balance \$	48,271	36,931	45,481	53,931	62,281
					70,511

\* Interest should be included in determining the estimated ending balance for the current year. Interest in planning years nets against inflation which is not included.

## Reserve Schedule

**Reserve Fund: 1.523 Port Renfrew Refuse Disposal Equipment Replacement Fund**

### Reserve Cash Flow

**Fund: 1022 Fund Center: 101448**  
**ERF Group: PTRENREF.ERF**

	Estimate	Budget			
	2016	2017	2018	2019	2020
Beginning Balance	25,838	26,858	27,878	28,898	29,918
Expenditures	-				
Transfer from Ops Budget	1,020	1,020	1,020	1,020	1,020
Interest Income	-	-	-	-	-
Ending Balance \$	26,858	27,878	28,898	29,918	30,938
					31,958

# **CAPITAL REGIONAL DISTRICT**

## **2017 Budget**

### **Port Renfrew Water**

#### **COMMITTEE REVIEW**

Compiled and Presented by CRD Finance

Nov 2016

<b>Service: 2.650</b>	<b>Port Renfrew Water</b>	<b>Committee: Electoral Area Services</b>
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**DEFINITION:**

To establish, acquire, operate and maintain a water supply system for the Port Renfrew Water Area. The service is to supply, treat, convey, store and distribute water. Local Service Area Bylaw No.1747 (Nov 8, 1989). Amended Bylaw No. 1960 (Jan. 29, 1992).

**PARTICIPATION:**

Local Service Area #5, E(762)

**MAXIMUM LEVY:**

Greater of \$40,000 or \$18.28 / \$1,000 of actual assessed value of land and improvements. To a maximum of \$925,313

**COMMISSION:**

Port Renfrew Local Service Committee established by Bylaw No. 1770 (November 22, 1989).  
Port Renfrew Utility Services Committee (Juan de Fuca EA) established by Bylaw No. 3281 (September 14, 2005).

**FUNDING:**

Any deficiencies after user charge are to be levied on taxable hospital assessments.

**User Charge:**

50% of operating cost to be collected by an annual user fee to be charged per single family equivalency actually connected to the system.

**Parcel Tax:**

50% of operating costs are collected as a parcel tax to be charged to every parcel within the local service area.

**Connection Charges:**

At cost - Bylaw No. 1803 (amended Bylaw 3892).

**RESERVE FUND:**

Approved by Bylaw No. 2138 (June 23, 1993); amended to sewer and water reserve fund by Bylaw No. 2577 (December 1997).

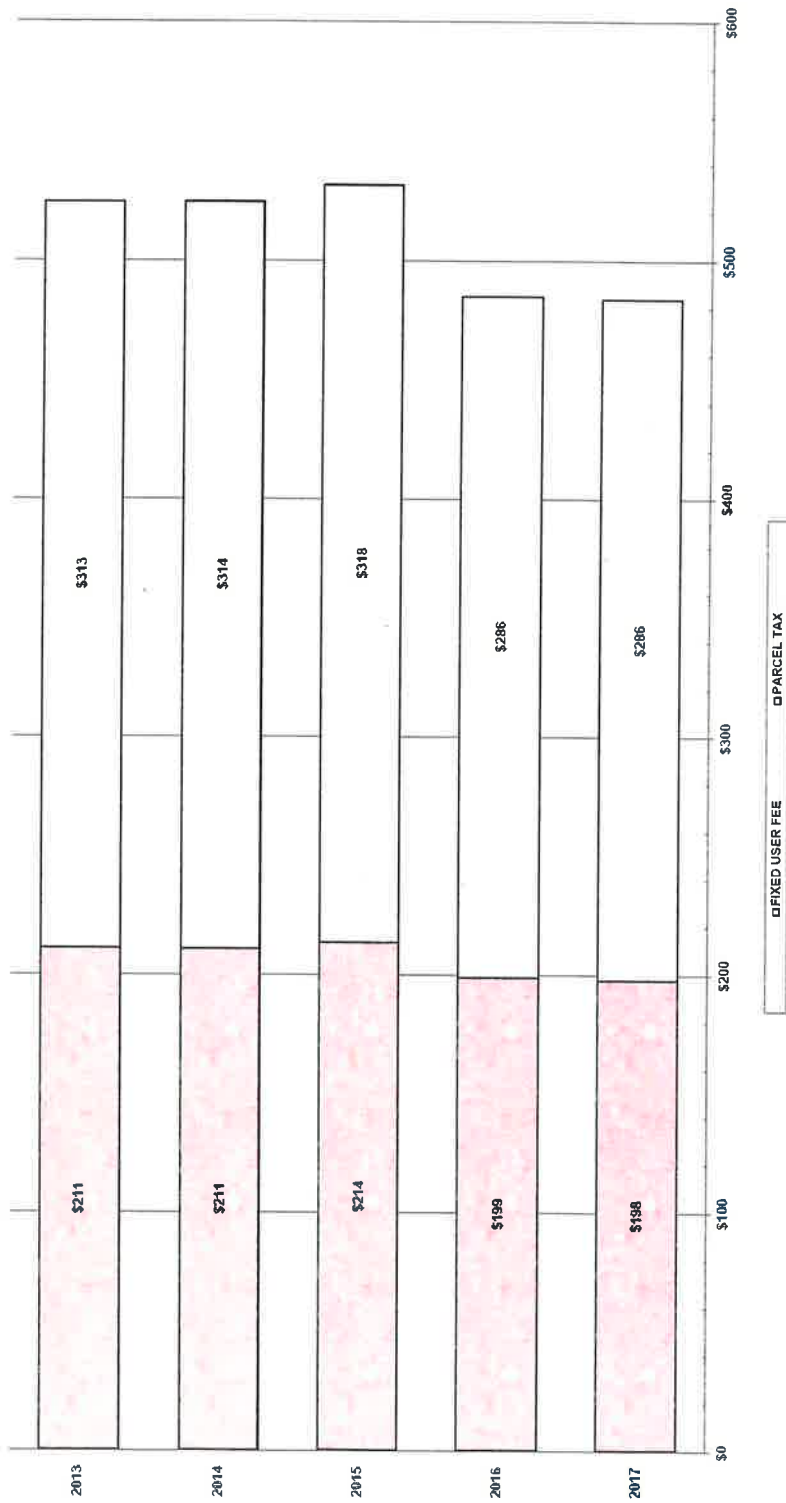
PORT RENFREW WATER	2016		BUDGET REQUEST				FUTURE PROJECTIONS			
	BOARD BUDGET	ESTIMATED ACTUAL	2017 CORE BUDGET	2017 ONGOING	2017 ONE-TIME	2017 TOTAL	2018	2019	2020	2021
OPERATING COSTS:										
Repairs & Maintenance	5,350	2,010	5,350	-	-	5,350	5,350	5,350	5,350	5,350
Allocations - Operations	50,900	49,000	48,290	-	-	48,290	49,260	50,250	51,260	52,290
Allocations - Other	8,640	8,930	12,760	-	-	12,760	13,010	13,280	13,560	13,830
Electricity	6,780	5,400	6,920	-	-	6,920	7,160	7,370	7,590	7,820
Supplies	3,410	3,000	2,980	-	-	2,980	3,020	3,060	3,100	3,140
Internal Time Charges	9,230	5,000	9,410	-	-	9,410	9,500	9,600	9,700	9,800
Other Operating Expenses	4,510	3,100	4,760	-	-	4,760	4,920	4,970	4,920	4,970
TOTAL OPERATING COSTS	89,020	76,440	90,470	-	-	90,470	92,220	93,880	95,480	97,200
*Percentage Increase over prior year						1.6%	1.9%	1.8%	1.7%	1.8%
CAPITAL / RESERVE										
Transfer to Reserve Fund	24,140	36,420	16,070	-	-	16,070	16,440	16,950	17,460	17,990
TOTAL COSTS	113,160	112,860	106,540	-	-	106,540	108,660	110,830	112,940	115,190
FUNDING SOURCES (REVENUE)										
Estimated balance c/f from 2016 to 2017	-	-	-	-	-	-	-	-	-	-
Balance C/f from 2015 to 2016	(7,120)	(7,120)	-	-	-	-	-	-	-	-
User Charges	(52,750)	(52,750)	(53,250)	-	-	(53,250)	(54,320)	(55,410)	(56,520)	(57,650)
Other Revenue	(550)	(250)	(550)	-	-	(550)	(560)	(570)	(580)	(590)
Grants in Lieu of Taxes	-	-	-	-	-	-	-	-	-	-
TOTAL REVENUE	(60,420)	(60,120)	(53,800)	-	-	(53,800)	(54,880)	(55,980)	(57,100)	(58,240)
REQUISITION - PARCEL TAX	(52,740)	(52,740)	(52,740)	-	-	(52,740)	(53,780)	(54,850)	(55,840)	(56,950)
*Percentage increase over prior year							2.0%	2.0%	2.0%	2.0%
User Charges						0.9%	2.0%	2.0%	2.0%	2.0%
Requisition						0.0%	2.0%	2.0%	1.8%	2.0%
Combined						0.5%	2.0%	2.0%	1.9%	2.0%

Service:	2.650	Port Renfrew Water	Committee: Electoral Area Services
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LEVY STATISTICS

<u>Year</u>	<u>Taxable Folios</u>	<u>Parcel Tax</u>	<u>SFE's</u>	<u>User Charge</u>	<u>Tax &amp; Charges</u>	<u>Bylaw</u>	<u>Assessments \$(000's)</u>
2012	163	\$320.86	244.33	\$203.38	\$524.24	3823	39,733
2013	172	\$313.09	242.33	\$211.15	\$524.24	3892	28,108
2014	172	\$313.74	243.33	\$210.71	\$524.45	3924	37,379
2015	172	\$317.95	243.33	\$213.54	\$531.49	3987	47,246
2016	194	\$286.13	265.33	\$198.81	\$484.94	4074	50,619
2017	194	\$286.13	269.33	\$197.71	\$483.84		

# CAPITAL REGIONAL DISTRICT PORT RENFREW WATER FUNDING ANALYSIS 2013-2017



Actual Costs 2013-2016, Projected 2017  
Prepared by CRD Finance  
10/26/2016



**CAPITAL BUDGET FORM**  
**2017 & Forecast 2018 to 2021**

**Service #:** 2.650  
**Service Name:** Port Renfrew Water

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

Capital Expenditure Type
New Construction/ Project: Expenditure for new asset only
Renewal: Expenditure replaces an existing asset and extends the service ability or enhances technology in delivering that service
Replacement: Expenditure replaces an existing asset

[illegible]

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
Res	= Reserve Fund
STLoan	= Short Term Loans

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

<b>Service: 2.650</b>	<b>Port Renfrew Water</b>	<b>Committee: Electoral Area Services</b>
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**14-01 Strategic Asset Management Plan (\$4,000 Carry Forward)**

The Strategic Asset Management Plan will recommend a prioritized list of infrastructure replacements, which will serve as the basis for future capital spending plans.

**17-01 Phase 2 System Improvement -Storage Tank (\$320,00 in 2017)**

Additional steel storage tank at existing tank site to increase capacity of water system to facilitate development. Fully funded by contributions from developers.

**18-01 Phase 3 System Improvement (\$300,000 in 2018)**

It is anticipated that there will be potential future system improvements related to development within the Port Renfrew water service area. Therefore, the 2017 - 2021 capital plan includes \$300,000 in 2018 to be funded by contributions from developers.

Port Renfrew Water  
Summary Schedule  
2017 - 2021 Financial Plan

Reserve/Fund Summary

	Estimate	Budget			
	2016	2017	2018	2019	2020
Equipment Replacement Fund	-	-	-	-	-
Capital Reserve Fund	178,057	194,127	210,567	227,517	244,977
<b>Total</b>	<b>178,057</b>	<b>194,127</b>	<b>210,567</b>	<b>227,517</b>	<b>244,977</b>
					<b>262,967</b>

# Reserve Schedule

Reserve Fund: 2.650 Port Renfrew Water Capital Reserve Fund (Bylaw No.: 2577)

## Reserve Cash Flow

Fund: 1026 Fund Center: 101370

	Estimate 2016	Budget			
		2017	2018	2019	2020
Beginning Balance	126,884	178,057	194,127	210,567	227,517
Transfer to Cap Fund (Based on Capital Plan)	-				
Transfer from Operating Budget	36,420	16,070	16,440	16,950	17,460
Transfer from Equipment Replacement Fund	14,753	-	-	-	-
Interest Income*	-	-	-	-	-
Ending Balance \$	178,057	194,127	210,567	227,517	244,977

### Assumptions/Background:

Transfer as much as operating budget will allow

\* Interest should be included in determining the estimated ending balance for the current year. Interest in planning years nets against inflation which is not included.

<b>Reserve Schedule</b>
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<b>Reserve Fund:</b> 2.650 Port Renfrew Water Equipment Replacement Fund
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<b>Reserve Cash Flow</b>
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Fund: 1022 Fund Center: 101453 ERF Group: PTRENEWTR.ERF	Estimate 2016	Budget				
		2017	2018	2019	2020	2021
	Beginning Balance	14,753	-	-	-	-
	Expenditures	-				
	Transfer to CRF	(14,753)	-	-	-	-
Interest Income	-	-	-	-	-	-
Ending Balance \$	-	-	-	-	-	-

<b>Assumptions/Background:</b> The balance should be transferred to the CRF
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# **CAPITAL REGIONAL DISTRICT**

## **2017 Budget**

### **Pt. Renfrew Snuggery Cove Water**

#### **COMMITTEE REVIEW**

Compiled and Presented by CRD Finance

Nov 2016

Service:	2.655	Pt. Renfrew Snuggery Cove Water	Committee: Electoral Area Services
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**DEFINITION:**

Waterworks system that is an expansion to the Port Renfrew water distribution system. Local Service Bylaw No. 3004 (October 9, 2002).

**PARTICIPATION:**

Local Service Area SVRA #44, W(762) of the Electoral Area of Sooke.

**MAXIMUM LEVY:**

Greater of \$40,000 or \$8.12 / \$1,000 on actual assessments for land and improvements, to a maximum of \$251,051

**MAXIMUM CAPITAL DEBT:**

AUTHORIZED:	LA Bylaw No. 2996 (October 9, 2002)	325,000
BORROWED:	SI Bylaw No. 3154 (February 11, 2004)	(325,000)
REMAINING:		<u>\$0</u>

**COMMISSION:**

Port Renfrew Local Services Committee established by Bylaw No. 3083  
Port Renfrew Utility Services Committee (Juan de Fuca EA) established by Bylaw No. 3281 (September 14, 2005).

**FUNDING:**

Requisition of money under Section 806 of the Local Government Act to be collected by a property value tax to be collected on land and improvements within the service area.

PORT RENFREW SNUGGERY COVE WATER	2016 BOARD BUDGET		2016 ESTIMATED ACTUAL		BUDGET REQUEST				FUTURE PROJECTIONS			
					2017 CORE BUDGET	2017 ONGOING	2017 ONE-TIME	2017 TOTAL	2018	2019	2020	2021
OPERATING COSTS:												
Finance and Corporate Services Allocation	810	810	810		830	-	-	830	850	870	-	-
Internal Interest Expense	99	99	99		100	-	-	100	100	100	-	-
<b>TOTAL OPERATING COSTS</b>	<b>909</b>	<b>909</b>	<b>909</b>		<b>930</b>	-	-	<b>930</b>	<b>950</b>	<b>970</b>	-	-
*Percentage Increase over prior year								2.3%	2.2%	2.1%		
DEBT/CAPITAL												
MFA Debt Principal	15,061	15,061	15,061		15,060	-	-	15,060	15,060	15,060	-	-
MFA Debt Interest	7,800	7,800	7,800		7,800	-	-	7,800	7,800	3,900	-	-
<b>TOTAL DEBT/CAPITAL</b>	<b>22,861</b>	<b>22,861</b>	<b>22,861</b>		<b>22,860</b>	-	-	<b>22,860</b>	<b>22,860</b>	<b>18,960</b>	-	-
<b>TOTAL COSTS</b>	<b>23,770</b>	<b>23,770</b>	<b>23,770</b>		<b>23,790</b>	-	-	<b>23,790</b>	<b>23,810</b>	<b>19,930</b>	-	-
FUNDING SOURCES (REVENUE)												
Estimated balance C/F from 2016 to 2017	-	-	-		-	-	-	-	-	-	-	-
Balance C/F from 2015 to 2016	(50)	(50)	(50)		-	-	-	-	-	-	-	-
Transfer from General Capital Fund	-	-	-		-	-	-	-	-	-	-	-
Interest Income	(20)	(20)	(20)		(20)	-	-	(20)	-	(17,410)	-	-
<b>TOTAL REVENUE</b>	<b>(70)</b>	<b>(70)</b>	<b>(70)</b>		<b>(20)</b>	-	-	<b>(20)</b>	-	<b>(17,410)</b>	-	-
<b>REQUISITION</b>	<b>(23,700)</b>	<b>(23,700)</b>	<b>(23,700)</b>		<b>(23,770)</b>	-	-	<b>(23,770)</b>	<b>(23,810)</b>	<b>(2,520)</b>	-	-
*Percentage increase over prior year requisition								0.3%	0.2%	-89.4%		



**Service: 2.655 Port Renfrew Snuggery Cove Water**

**Committee: Electoral Area Services**

<u>Year</u>	<u>Converted Assessments</u>	<u>Avg Household Assessment</u>	<u>Requisition</u>	<u>Cost per Avg Household</u>
2012	2,562,643	187,178	31,785	\$232.16
2013	2,505,423	166,956	31,801	\$211.92
2014	2,504,687	171,464	61,670	\$422.18
2015	3,415,305	187,603	23,700	\$130.18
2016	3,622,841	220,081	23,700	\$143.97
2017	3,622,841	220,081	23,770	\$144.40

# **CAPITAL REGIONAL DISTRICT**

## **2017 Budget**

### **Port Renfrew Sewer**

#### **COMMITTEE REVIEW**

Compiled and Presented by CRD Finance  
Data provided by Integrated Water Services

Nov 2016

Service: 3.850	Port Renfrew Sewer	Committee: Electoral Area Services
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**DEFINITION:**

To provide, operate and maintain sewage collection and disposal facilities for the Port Renfrew Sewerage System Specified Area - Bylaw No. 1744, November 8, 1989. Amended Bylaw No. 1961, January 29, 1992.

**PARTICIPATION:**

Local Service Area C(762) LSA#2.

**MAXIMUM LEVY:**

Greater of \$40,000 or \$18.28 / \$1,000 to a maximum of \$357,740 on actual assessed value of land and improvements.

**MAXIMUM CAPITAL DEBT:**

Nil

**COMMISSION:**

Port Renfrew Local Services Committee established by Bylaw No. 1770, November 22, 1989.  
Port Renfrew Utility Services Committee (Juan de Fuca EA) established by Bylaw No. 3281 (September 14, 2005).

**FUNDING:**

Any deficiencies after user charge to be levied on taxable hospital assessments.

- User Charge:** 50% of operating cost to be imposed as an annual user fee to each connected property.
- Parcel Tax:** 50% of operating costs are collected as a parcel tax to be charged to every parcel within the local service area.
- Connection Charge:** Based on actual cost.

**RESERVE FUND:**

Port Renfrew Sewer System Capital Reserve Fund, Bylaw No. 2139 (June 23, 1993).

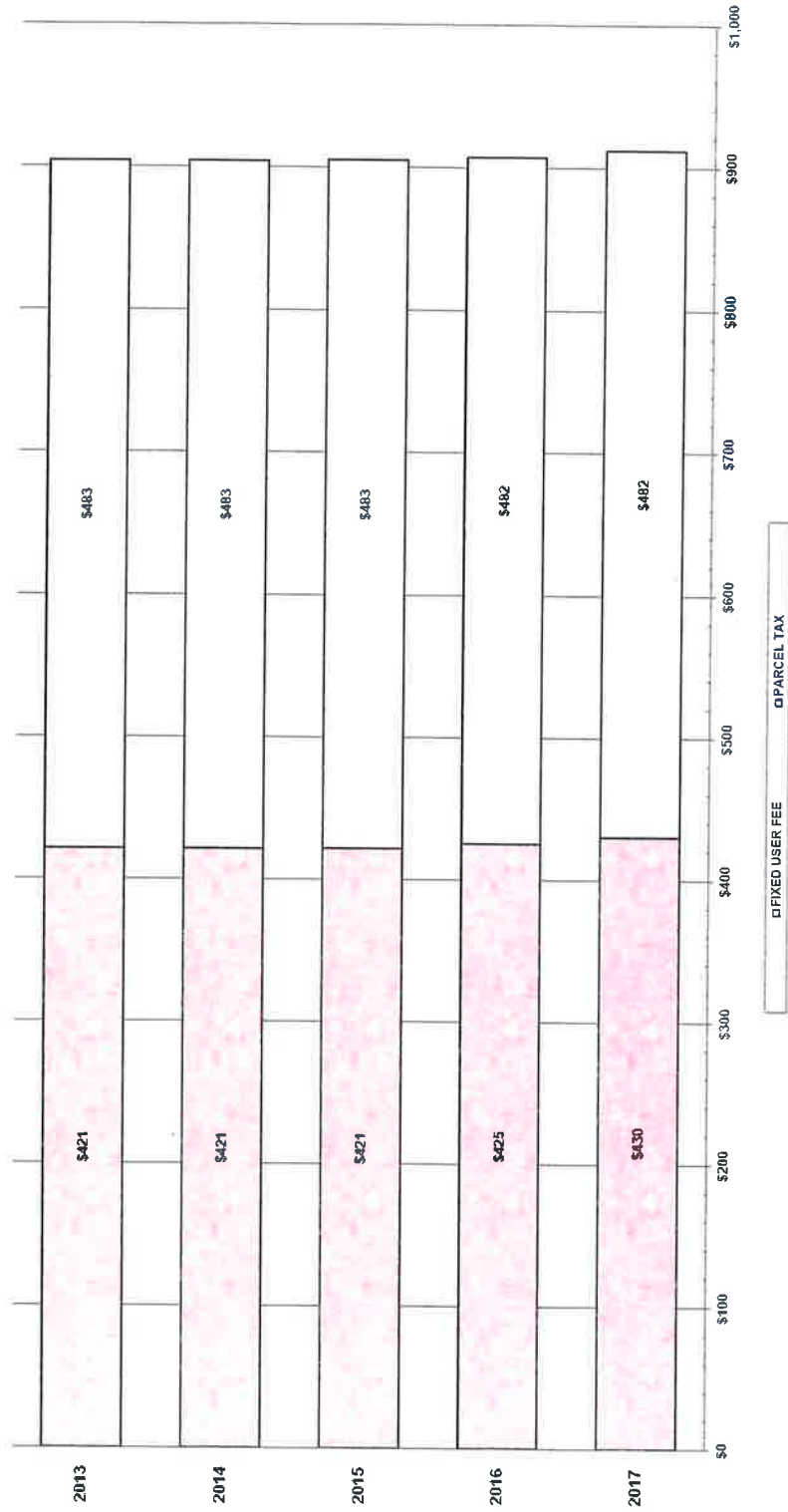
PORT RENFREW SEWER	BUDGET REQUEST			FUTURE PROJECTIONS						
	2016 BOARD BUDGET	2016 ESTIMATED ACTUAL	2017 CORE BUDGET	2017 ONGOING	2017 ONE-TIME	2017 TOTAL	2018	2019	2020	2021
OPERATING COSTS:										
Grt Disposal	5,200	6,000	6,090	-	-	6,090	5,610	5,720	5,830	5,950
Electricity	5,700	5,600	5,810	-	-	5,810	6,010	6,190	6,380	6,570
Supplies	1,380	3,500	1,390	-	-	1,390	1,390	1,390	1,390	1,390
Allocations - Operations	43,960	41,790	41,760	-	-	41,760	42,590	43,440	44,300	45,180
Internal Time Charges	19,440	19,700	17,300	-	-	17,300	17,650	18,010	18,370	18,740
Contingency	3,670	2,150	3,740	-	-	3,740	3,780	3,820	3,860	3,900
Other Operating Expenses	7,390	2,150	6,120	-	-	6,120	6,720	6,740	6,750	6,780
	4,490	2,780	4,340	-	-	4,340	4,370	4,410	4,450	4,490
TOTAL OPERATING COSTS	91,230	81,520	86,550	-	-	86,550	88,120	89,720	91,330	93,000
*Percentage Increase over prior year						-5.1%	1.8%	1.8%	1.8%	1.8%
CAPITAL / RESERVE / DEBT										
Transfer to Capital Reserve	2,120	4,170	2,580	-	-	2,580	-	-	-	-
MFA Debt Reserve Fund	-	-	-	-	-	-	-	-	-	-
MFA Debt Principal	-	-	-	-	-	-	-	-	-	-
MFA Debt Interest	-	-	-	-	-	-	-	-	-	-
TOTAL CAPITAL / RESERVES	2,120	4,170	2,580	-	-	2,580	-	-	-	-
TOTAL COSTS	93,350	85,690	89,130	-	-	89,130	88,120	89,720	99,710	181,410
FUNDING SOURCES (REVENUE)										
Estimated balance c/f from 2016 to 2017	-	7,660	(7,660)	-	-	(7,660)	-	-	-	-
Balance C/F from 2015 to 2016	(12,340)	(12,340)	-	-	-	-	-	-	-	-
User Charges	(40,295)	(40,295)	(40,755)	-	-	(40,755)	(43,850)	(44,650)	(45,455)	(46,260)
Other Revenue	(400)	(400)	(400)	-	-	(400)	(400)	(400)	(400)	(400)
Grants in Lieu of Taxes	(20)	(20)	(20)	-	-	(20)	(20)	(20)	(20)	(20)
TOTAL REVENUE	(53,055)	(53,055)	(41,175)	-	-	(41,175)	(44,270)	(45,070)	(45,875)	(46,710)
REQUISITION - PARCEL TAX	(40,295)	(40,295)	(40,295)	-	-	(40,295)	(43,850)	(44,650)	(53,835)	(134,700)
*Percentage increase over prior year requisition			0.0%			0.0%	8.8%	1.8%	20.6%	150.2%

Service:	3.850	Port Renfrew Sewer	Committee: Electoral Area Services
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# LEVY STATISTICS

<u>Year</u>	<u>Taxable Folios</u>	<u>Parcel Tax</u>	<u>SFE's</u>	<u>User Charge</u>	<u>Tax &amp; Charges</u>	<u>Bylaw</u>	<u>Assessments \$(000's)</u>
2012	86	\$490.15	96.77	\$413.88	\$904.03	3823	21,516
2013	87	\$482.87	94.77	\$421.17	\$904.04	3892	19,973
2014	87	\$482.87	94.77	\$421.18	\$904.05	3924	18,950
2015	87	\$483.24	94.77	\$421.49	\$904.73	3987	20,000
2016	88	\$481.94	94.77	\$425.19	\$907.12	4074	19,570
2017	88	\$481.94	94.77	\$430.04	\$911.98		

# CAPITAL REGIONAL DISTRICT PORT RENFREW SEWER FUNDING ANALYSIS 2013-2017



Actual Costs 2013-2016, Projected 2017  
Prepared by CRD Finance  
10/27/2016

**CAPITAL BUDGET FORM**  
**2017 & Forecast 2018 to 2021**

Project No.	The first two digits represent first year the project was in the capital plan.
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Capital Expenditure Type
New Construction/ Project: Expenditure for new asset only
Renewal: Expenditure replaces an existing asset and extends the service ability or enhances technology in delivering that service
Replacement: Expenditure replaces an existing asset

[illegible]

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
Res	= Reserve Fund
STLoan	= Short Term Loans

Asset Class
L
S
B
V
E

- Land
- Engineering Structure
- Buildings
- Vehicles
- Equipment

<b>Service:</b>	<b>3.850</b>	<b>Port Renfrew Sewer</b>
-----------------	--------------	---------------------------

<b>17-01</b>	<b>Strategic Asset Management Plan</b>	\$10,000
	A Strategic Asset Management Plan is a guideline for planning upgrades, renewal and replacement for a service's infrastructure. Long and short term infrastructure renewal are planned with a sustainable financial plan taking into account the immediate and	
<b>18-01</b>	<b>Wastewater Improvements Public Consultation</b>	\$20,000
	To accomplish future infrastructure wastewater works to continue to provide service, additional funding is required. Public consultation to inform the public on the requirement for improvements to the wastewater system, including previously identified	
<b>19-01</b>	<b>Inflow/Infiltration Construction</b>	\$100,000
	A CCTV and smoke test of the wastewater system was conducted in 2009-2010, 10 areas within the wastewater system were identified as requiring repairs. Funding is required to carry out repairs to the wastewater system.	
<b>19-02</b>	<b>WWTP Structural Assessment</b>	\$35,000
	The existing wastewater treatment plant is over 50 years old. There are safety concerns about the steel catwalks and concrete tankage. Funding is required to conduct a structural assessment of the wastewater treatment plant	
<b>21-01</b>	<b>WWTP Upgrades</b>	\$1,200,000
	Identified in the June 22, 2015 staff report, the WWTP is at it's treatment capacity and needs to be upgraded to maintain regulatory compliance. Funding is required to complete design and upgrade of the WWTP.	



Port Renfrew Sewer Reserves  
Summary Schedule  
2017 - 2021 Financial Plan

Reserve/Fund Summary

	2016	2017	2018	Budget		
				2019	2020	2021
Equipment Replacement Fund	-	-	-	-	-	-
Capital Reserve Fund	35,909	28,489	8,489	8,489	8,489	8,489
<b>Total</b>	<b>35,909</b>	<b>28,489</b>	<b>8,489</b>	<b>8,489</b>	<b>8,489</b>	<b>8,489</b>

## Reserve Schedule

Reserve Fund: 3.850 Port Renfrew Sewer Capital Reserve Fund (Bylaw No.: 2139)

### Reserve Cash Flow

Fund: 1044 Fund Center: 101388

	Estimate 2016	Budget			
		2017	2018	2019	2020
Beginning Balance	6,897	35,909	28,489	8,489	8,489
Transfer to Cap Fund (Based on Capital Plan)	-	(10,000)	(20,000)	-	-
Transfer from Operating Budget	4,170	2,580	-	-	-
Transfer from ERF	19,281	-	-	-	-
Transfer from Capital Project Fund	5,561	-	-	-	-
Interest Income*	-	-	-	-	-
Ending Balance \$	35,909	28,489	8,489	8,489	8,489

#### Assumptions/Background:

Transfer as much as operating budget will allow.

<b>Reserve Schedule</b>
-------------------------

<b>Reserve Fund: 3.850 Port Renfrew Sewer Equipment Replacement Fund</b>
--

<b>Reserve Cash Flow</b>
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<b>Fund: 1022 Fund Center: 101459</b>						
<b>ERF Fund: PTRENSWR.ERF</b>						
	<b>Estimate</b>	<b>Budget</b>				
	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>
<b>Beginning Balance</b>	19,281	-	-	-	-	-
<b>Transfer to CRF</b>	(19,281)					
<b>Interest Income</b>	-	-	-	-	-	-
<b>Ending Balance \$</b>	-	-	-	-	-	-

<b>Assumptions/Background:</b> Balance should be transferred to CRF.
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## **REPORT TO PORT RENFREW UTILITY SERVICES COMMITTEE MEETING OF MONDAY, NOVEMBER 7, 2016**

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### **SUBJECT     WATER SYSTEM IMPROVEMENTS UPDATE – PHASES 1 AND 2**

### **ISSUE**

To provide the Port Renfrew Utilities Services Committee with an update regarding the Phase 1 and 2 water system improvements being delivered by developers.

### **BACKGROUND**

In 2015, Port Renfrew Utility Services Committee (PRUSC) resolved to accept water system improvements to be delivered by local developers to address the water system capacity issues and allow for the developments to receive water service. The resolutions were detailed in the staff reports and meeting minutes of the August 4, 2015 and September 21, 2015 PRUSC meetings for the three pending developments including the Port Renfrew RV Resort, 6649 Godman Road and the Port Renfrew Management lands near the community hall.

### **Phase 1 Water System Improvements**

Generally, the Phase 1 improvements are to increase the capacity of the water supply system by supplying and installing a new well pump and motor, supply water main to the disinfection facility, booster pumps and related controls and electrical work. In addition, the Electoral Area Director secured funding for a new chlorine injection pump and flow meter. These improvements are to be delivered in accordance with an agreement executed between the Capital Regional District (CRD) and the partnership between the owners of the Port Renfrew RV Resort and 6649 Godman Road property.

At the time of writing this report, the developers have completed the installation of the new works and as of September 15, 2016 an inspection and commissioning meeting was held on-site (refer to Attachment 1 for photos of the new works). Although the new works were integrated into the existing operating system and are in operation, the CRD will not formally take on ownership of the work until the developers fully meet the terms and conditions of the agreement. The consultant working on the assignment communicated that work including submission of records will be completed by end of November 2016.

Independent of the agreement for the capacity improvements as noted above, the developer of the RV Resort proposes to extend the Port Renfrew water system by installing a water main along a future Ministry of Transportation and Infrastructures road right-of-way to service the development (extension of Powder Main Road). Any such extension is administered by the CRD under a separate Water Works Extension agreement. An agreement has been prepared for this pending water main, and it has been executed by the developer waiting CRD execution.

Although it is understood that the developer is proceeding with the construction work, the CRD will not take on ownership and operation, nor provide a connection to the Port Renfrew water

system, until all terms and conditions are met by the developer. The technical drawings/design of the water main extension has been prepared by the developer's engineer and approved by the CRD and a Construction Permit has been issued by the Island Health Authority. Further, the developer will have to resolve any issues related to the Ministry of Transportation and Infrastructure and Ministry of Forest, Lands, Natural Resources and Operations, such as stream crossings.

No significant progress has been made regarding the pending development and servicing of the Godman Road property.

### **Phase 2 Water System Improvements**

Phase 2 improvements include the delivery of a second water storage tank, which is to be located adjacent to the existing tank. This improvement is to be delivered in accordance with an agreement with a partnership between the owner of the Port Renfrew Management lands and the Port Renfrew RV Resort.

At the time of writing this report, the developer's engineer indicated that the drawings for the storage tank work are to be submitted to the CRD by the end of October 2016 and construction is expected to start by February 2017.

Similar to the water works extension agreement for the Port Renfrew RV Resort, any proposed water main extension and connection to the existing Port Renfrew water system will be administered under a separate Water Works Extension agreement. The CRD is waiting for details from the developer prior to drafting such an agreement.

### **CONCLUSION**

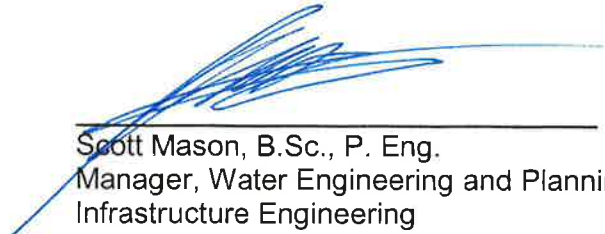
The Phase 1 water system improvements are nearly complete and in operation although the developer's engineer is to complete the final deficiencies before the CRD takes on ownership of the improvements.

The Port Renfrew RV Resort's developer is progressing with the extension of the Port Renfrew water system along the future extension of Powder Main Road. These water works will not be connected to the existing water system until all of the terms and conditions for the extension are fulfilled.


The Phase 2 water system improvements related to the new storage tank is proposed to be designed and submitted to the CRD in November 2016 and construction scheduled to start by February 2017.

### **RECOMMENDATION**

That the Port Renfrew Utility Services Committee receive this report for information.



\_\_\_\_\_  
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Infrastructure Engineering



\_\_\_\_\_  
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Attachment: Attachment 1 – Phase 1 Improvement Photos

## ATTACHMENT 1 – Phase 1 Improvement Photos

Photo 1 - Interior of Treatment Plant 2014 (before)



Photo 2 - Interior of Treatment Plant September 2016 (after)





**Photo 3 - Interior of Treatment Plant September 2016 (after)**



**Photo 4 – Well Head 2014 (before)**





**Photo 5 – Well Head September 2016 (after)**  
note: new pump and motor installed within the well.





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## REPORT TO PORT RENFREW UTILITY SERVICES COMMITTEE MEETING OF MONDAY, NOVEMBER 7, 2016

---

### **SUBJECT**     **LOW WATER PRESSURE ISSUE, OSPREY PLACE**

### **ISSUE**

Osprey Place has had low water pressure since the installation of the water distribution system and interconnection with the Beach Camp water system in about 2004.

### **BACKGROUND**

At its meeting of November 18, 2013, the Port Renfrew Utility Services Committee resolved the following:

*That \$3,000 of the capital reserve be set aside in 2013 for the design and cost estimates to increase water pressure on Osprey Place.*

The Port Renfrew water system provides water to the five parcels/customers on Osprey Place via a 50 millimeter diameter water main that is fed from the water main on Powder Main and Parkinson Roads and the storage tank located south of Wickinnish Road. The elevation of the storage tank relative to the upper elevation of Osprey Place is such that the customers on the south or upper elevation of Osprey Place suffer from low water pressure. The full elevation of the storage tank is 49.5 metres above sea level (asl), but normally operates at about 47.5 m asl and the slab foundation is approximately 42 metres asl. The upper elevation of Osprey Place is approximately 31 metres asl which results in a static pressure marginally above 20 psi at the road.

Customers will experience even less pressure should their plumbing fixtures or taps be located higher in elevation and further, water pressure will be low due to energy loss in the distribution system during periods of higher customer demand. The water main on Osprey Place is a 50 millimetre diameter main which includes a small diameter standpipe at the end of the cul-de-sac and therefore, an urban level-of-service for fire protection is not achievable on Osprey Place without other water system improvements.

The Port Renfrew water system operates with one pressure zone, meaning the elevation of water in the existing storage tank establishes the pressure throughout the system. Customers near sea level will experience higher pressure and customers with property located higher in elevation will experience lower pressure.

The attached Figure 1 illustrates the pressure ranges throughout the water service area which are related to elevation. Typically, a domestic water system should provide pressure between the range of 60 and 120 psi and in extreme cases as low as 20 psi and as high as 150 psi and all customers should protect their property with individual pressure reducing valves as required by the *British Columbia Plumbing Code*.

Several options have been identified to resolve the pressure issue and generally relate to increasing the pressure with one or more pump systems. The options include:

1. A standalone booster station located in the vicinity of Osprey Place;
2. A booster station near the existing water storage tank to create a new pressure zone for the Snuggery Cove portion of the system; or
3. Install individual booster units for each customer.

The options are detailed further as follows:

Option 1 – Booster Station for Osprey Place – This booster station option is described as a stand-alone building containing one or more booster pumps, hydro-pneumatic tank, control and electrical equipment. The building could be located within the Ministry of Transportation and Infrastructure's road right-of-way with permission as long as it does not interfere with transportation, alternatively, a portion of a nearby private property could be purchased to facilitate the building. Electricity could be sourced from the nearby BC Hydro utility and a water connection made to the nearby water main and plumbed through the booster station to discharge to the cul-de-sac with associated control valve. The basic station would not include Supervisory Control and Data Acquisition (SCADA), auxiliary power genset or fire pump, etc.

The Capital Regional District (CRD) operates similar stations at the Wilderness Mountain water system in East Sooke, the Highland water system on Salt Spring Island and the West Coast cottages operates a booster pump at its connection on Baird Road. Preferably a water system will have limited numbers of booster systems as multiple pumps operating at the same time will have adverse effects throughout the system. Depending on a number of variables, such a station may cost between \$50,000 and \$100,000 and annual operating costs would be approximately \$5,000 to \$10,000 including operator labour, consumables, power and an annual contribution for equipment replacement and up keep. The capital and operating costs would be defined through a detailed design.

Option 2 – Booster Station for Snuggery Cove – Similar to the concept of Option 1, a booster station could be constructed to boost the entire Snuggery Cove portion of the Port Renfrew water system. This was conceptually identified as an option by local developers to be able to service lands of higher elevations within the existing water service area in the Snuggery Cove area. A booster station could be located at the existing storage tank site which currently has one tank located there, with a second to be erected with the local developer's Phase 2 improvements. Additional land may be required to facilitate a building. Additionally pipes and valves would be required in order to separate the two pressure zones, Beach Camp and Snuggery Cove.

Depending on what the developers propose for the future an additional booster system may be required to provide water service to the upper elevations. This booster station would have to be more robust as the level-of-service may include fire protection and electrical power redundancy (genset) amongst other features. A more complex booster station was housed in an ocean going container and recently commissioned in Langford by a new development for a cost of approximately \$200,000 including design and construction. The capital cost would be greater than that of Option 1 in the order of \$150,000 to \$300,000, although annual operating costs would be slightly higher than Option 1.

Option 3 – Install individual booster units for each customer – This option would see the installation of small individual booster pumps and pneumatic tank systems for each customer and they could be owned by either the water utility or the customer. If the CRD owned the units, then the units would ideally be located on the road right-of-way for access. Alternately, if the customer

owned the unit then they could be located on private property within a small kiosk enclosure or within the individual dwelling. Electrical power supply would be an issue if the CRD owned the units within the road as each unit would require a new BC Hydro utility service connection. The individual units may cost between \$5,000 to \$10,000 per unit depending on the location of the unit (inside or outside), electrical service, excavation, etc. Operating costs and future replacement would be minimal at approximately \$100 to \$200 per year (servicing, replacement, electricity, etc.).

At the end of 2015, the unaudited amount in the Capital Reserve Fund was \$126,884.

## **ALTERNATIVES**

### **Alternative 1**

That the Port Renfrew Utility Services Committee direct the Capital Regional District staff to work with the developers and determine their plans for any future water system improvements and more specifically determine if those plans would resolve the low water pressure issue at Osprey Place and report back to the Committee at a future meeting.

### **Alternative 2**

That the Port Renfrew Utility Services Committee direct the Capital Regional District staff to include a new capital project in the 2017 capital budget to install individual booster units for each water system customer (Option 3) on Osprey Place for an amount of up to \$50,000 with funding from the Capital Reserve Fund.

### **Alternative 3**

That the Port Renfrew Utility Services Committee direct the Capital Regional District staff to include a new capital project in the 2017 capital budget to install a booster station (Option 1) for Osprey Place for an amount of up to \$100,000 with funding from the Capital Reserve Fund.

## **IMPLICATIONS**

Alternative 1- by working with the developers there may be an opportunity to resolve the low water pressure issue in conjunction with future water system improvements.

Alternative 2 – by directing CRD staff to include a project to install individual booster pumps in the capital budget, the committee will be able to resolve the water pressure issue for the five parcels/customers on Osprey Place. Depending on ownership of the units, the committee may incur annual operating and maintenance costs.

Alternative 3 – by directing the CRD staff to include a booster pump station project in the capital budget, the committee will be able to resolve the water pressure issue for the five parcels/customers to on Osprey Place. The committee will have the ongoing annual operating and maintenance costs.

## **CONCLUSION**

The customers of the water system on Osprey Place have received low water pressure and several options exist to increase the pressure including the installation of a booster pump station

in the vicinity of Osprey Place, a larger booster pump station for the Snuggery Cove portion of the system and individual booster pump units for each of the five customers on Osprey Place. The local developers have discussed the idea of servicing the higher elevation lands in the Snuggery Cove area and may be considering installing a booster station in the future.

### **RECOMMENDATION**

That the Port Renfrew Utility Services Committee direct the Capital Regional District staff to work with the developers and determine their plans for any future water system improvements and more specifically determine if those plans would resolve the low water pressure issue at Osprey Place and report back to the committee at a future meeting.



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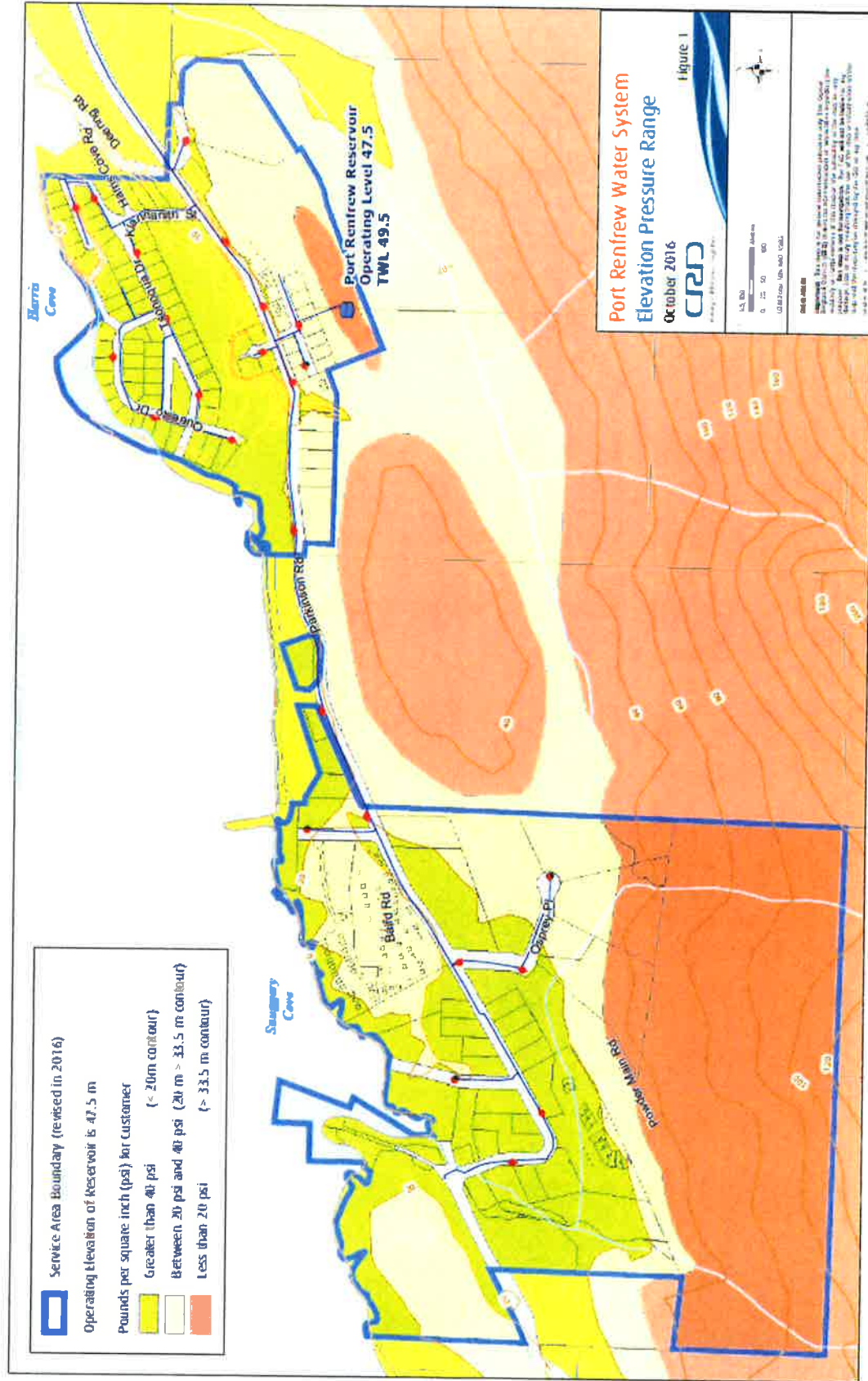


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Attachment: Figure 1







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## REPORT TO PORT RENFREW UTILITY SERVICES COMMITTEE MEETING OF MONDAY, NOVEMBER 7, 2016

---

### **SUBJECT**     **TECHNICAL AND OPERATIONAL REVIEW OF A CONCEPTUAL DEDICATED WATER SUPPLY PIPE**

### **ISSUE**

The Port Renfrew Utility Services Committee directed Capital Regional District (CRD) staff to investigate the merits of having a dedicated water supply pipe that discharges directly into the existing storage tank.

### **BACKGROUND**

At its meeting of April 25, 2016, the Port Renfrew Utility Services Committee resolved the following:

*That the Port Renfrew Utility Services Committee direct staff to investigate the technical merits of having a dedicated supply pipe to the storage reservoir [tank].*

The current water system configuration is such that the water supply main from the disinfection facility (pump station) in theory ends at the first customer to the system which is the fire hall located at the intersection of Parkinson and Deering Roads. This approximately 2.4 kilometres of 150 millimeter diameter section of water main is used to supply water to the distribution system as well as a vessel used to disinfect the raw water from the groundwater well located near Red Creek Mainline. Sodium hypochlorite (chlorine) is administered at the disinfection facility and the supply main discharges directly into the water distribution system at the same intersection, which is not directly connected to the storage tank located south of Wickanninish Road.

Although the water system could benefit from a dedicated water main, it is not a requirement of the Island Health Authority and many water systems operate in a similar configuration. The water system operator has observed fluctuations in the chlorine strength within the distribution system which may be a result of the original chemical dosing system which the system has operated for many years and was replaced in 2016 to an automated system. The original chemical dosing system consisted of a chemical metering pump that added chlorine to the raw water, this system was manually adjusted by the operator. The automated system includes a new chemical metering pump and electro-magnetic flow meter that work together to dose chlorine to the raw water proportionally based on the flow through the disinfection facility. The new system will reduce the risk of "swings" in chemical dosing and should result in a reduction of chlorine variations in the distribution system. A strategy may be to operate the new works along with the pending increase in water demand for a period to determine if the same observations occur.

Routine bacteriological sampling of the raw water has not observed bacteriological contamination of the raw water source to warrant additional disinfection. At the original flow rate of approximately 3.5 to 4 l/s, the duration of time to pass through the water main before the first customer was

approximately three hours. The typical chlorine contact time is twenty minutes (based on temperature, pH, and chlorine amount) and even with the new upgrades and increase pump rate, there will be in excess of one and a half hours of contact time. Because of the lengthy duration in the water main, it creates a difficulty for the operator to adjust the chlorine dose manually and the recent installation of the automated system should help alleviate the issue, as well as the pending increase in demand from the additional customers.

A dedicated water main would be comprised of a water main from the disinfection facility to the existing storage tanks. Currently, approximately 2.4 kilometres of an overall main length of 2.9 kilometres is already in operation and therefore the balance of a dedicated main would be approximately 500 metres. A horizontal alignment option would be to extend the main along the existing Ministry of Transportation and Infrastructure road (Parkinson Road) to the point where the existing water main is located between Parkinson Road and the storage tank (refer to Figure 1). This alignment is through a combination of right-of-ways and across Wickanninish Road. The conceptual cost of such a water main including design, construction, approvals, reinstatement, etc. would be in the order of \$600 to \$800 per metre or \$300,000 to \$400,000 depending upon many factors including construction market costs, rock excavation, MoTI permit conditions, etc. At the end of 2015, the unaudited amount in the Capital Reserve Fund was \$126,884 and therefore, the entire Capital Reserve Fund amount and supplementary funding would be required to fund the project. If the committee chooses to pursue the dedicated water main then a grant from senior governments may be an option to pursue for funding assistance similar to that for the 2003 Snuggery Cove work.

There is a drawback related to the system hydraulics under the scenario of having a dedicated main to the tank, that by having a single water main feed into the distribution system, during high demands such as a fire event, the distribution system would only receive water from the storage tank through the solitary water main versus water from both the storage tank and pump station.

## **ALTERNATIVES**

### **Alternative 1**

That the Port Renfrew Utility Services Committee receive this report for information.

### **Alternative 2**

That the Port Renfrew Utility Services Committee direct Capital Regional District staff to include a new capital project in the 2017 capital budget to install a dedicated water main to the water storage tank and fund the work from the capital reserve fund as well as to seek supplementary funding.

## **IMPLICATIONS**

Alternative 1 - by receiving the report, the committee will not incur the cost of a dedicated water main. The effect of the new disinfection equipment including the metering pump and controlling electro-magnetic flow metre can be monitored for a period to determine if the effect is still observed.

Alternative 2 - by directing the CRD staff to include the project in the capital budget, the issue of project funding will have to be addressed and supplementary funds secured to fund the project. Funding options may include a referendum similar to that conducted for Snuggery Cove, or to



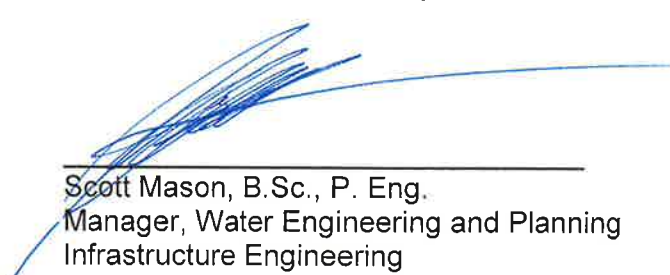
seek funding assistance through senior level government grant programs again similar to that provided for Snuggery Cove.

### CONCLUSION

The operators have observed fluctuations in chlorine amounts from within the water distribution system and the committee raised the idea of a dedicated water main from disinfection facility to discharge directly into the existing storage tanks. To complete such a dedicated water main, a new water main of approximately 500 metres would have to be installed at a unit rate of \$600 to \$800 per metre or \$300,000 to \$400,000. It was noted that new disinfection equipment may alleviate the situation along with the pending increase in customer demand and therefore, the new works can be operated for a period to determine if the problem continues.

### RECOMMENDATION


That the Port Renfrew Utility Services Committee receive this report for information.



\_\_\_\_\_  
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Infrastructure Engineering

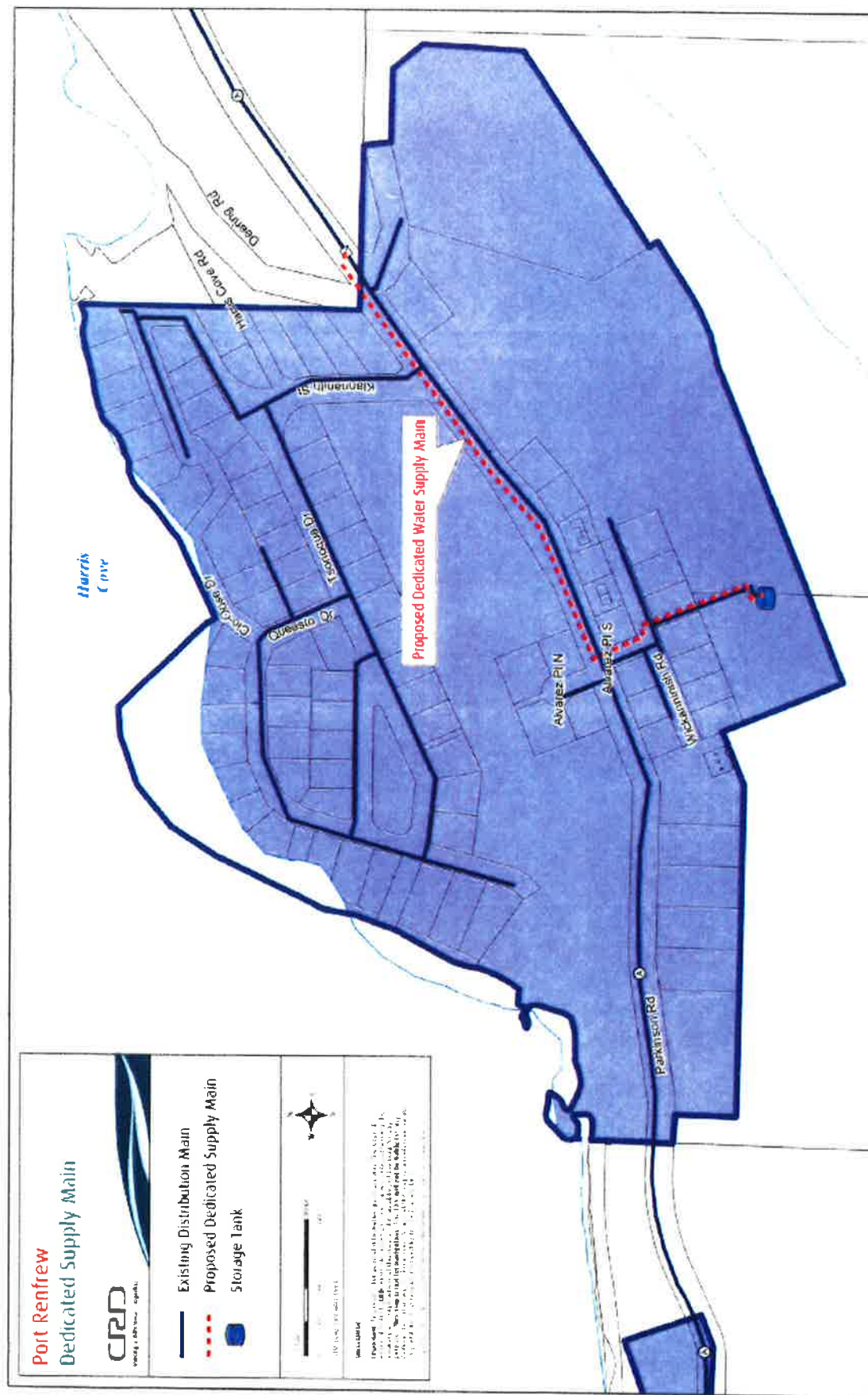


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Attachment: Dedicated Supply Main





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## REPORT TO PORT RENFREW UTILITY SERVICES COMMITTEE MEETING OF MONDAY, NOVEMBER 7, 2016

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### **SUBJECT** TIDAL INFLUENCE ON WASTEWATER TREATMENT PLANT FLOWS

### **ISSUE**

To inform the Port Renfrew Utilities Services Committee (PRUSC) on the analysis of tide levels and wastewater flows to see if there is a correlation (i.e. does tide water leak into the Beach Camp collection system).

### **BACKGROUND**

The Port Renfrew wastewater treatment plant (WWTP) was commissioned in the 1960's and has operated with minimal upgrades ever since. At the June 22, 2015 PRUSC meeting staff presented a report highlighting the current capacity and condition issues with the WWTP and conveyance system. The current WWTP has a capacity of 50 m<sup>3</sup>/day but can experience dry weather peak flows in excess of 75 m<sup>3</sup>/day during the summer.

At the April 25, 2016 PRUSC meeting staff presented a conceptual plan and Class C cost estimate to bring the plant into compliance (just for the existing service area) by increasing its capacity to 100 m<sup>3</sup>/day while maintaining the same facility footprint and utilizing the existing concrete tanks. The proposed upgrades included installing influent screens and a membrane bioreactor cartridge into the existing effluent tank along with some other ancillary items for an estimated cost range of \$875,000 to \$1,250,000. The Committee received the report and directed staff to monitor flows during the summer and track tide levels to see if increased summer-time flows were caused by high tide water leaking into the Beach Camp collection system.

### **Report**

Staff downloaded the hourly wastewater flow rate coming into the WWTP during the summer and compared it to tide levels over the same time period. The graph, (**Attachment 1**), shows a one week period from July 22 to 28, 2016 during which time the daily flows exceeded the WWTP limit of 50 m<sup>3</sup>/d on three days (July 24-26, 2016). As expected, higher flows occur during the day and are lower at night. However, the high tides do not appear to affect the flow rate.

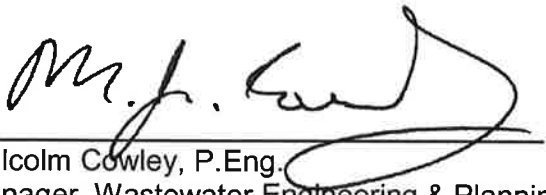
In addition to investigating the flow rates and tides, staff also prepared a cross-section showing the tide levels versus the invert of the lowest sewer pipe in beach camp (**Attachment 2**). The cross section indicates that even during highest tides, sea level is still below the invert of the sewer pipe. Therefore, it is concluded that the high tide levels do not influence the flow rate at the wastewater treatment plant.

Finally, staff evaluated the number of times the total daily flow exceeded the 50 m<sup>3</sup>/day plant capacity over the 2015 and 2016 summer period (**Attachment 3**). This bar chart shows that a majority of the exceedances occurred on Sundays and Mondays which correspond to when the number of people increases during weekend periods in the summer. Based on the analysis, it is believed that the summer-time treatment plant exceedances are due to actual use of the wastewater system during the peak summer season.

Therefore, the conceptual plan for short-term upgrades should continue to be pursued and discussed with the Port Renfrew community in the near future. In addition, it is recommended that a Strategic Asset Management Plan be completed for this Service which will create a better opportunity for the Service to be successful during a potential grant application process and provide the community with a tool for long term planning for maintaining the expected level of service.

### **RECOMMENDATION**

That the Port Renfrew Utility Services Committee receive this report for information.



Malcolm Cowley, P.Eng.  
Manager, Wastewater Engineering & Planning  
Infrastructure Engineering



Ian Jesney, P.Eng  
Senior Manager, Infrastructure Engineering  
Concurrence

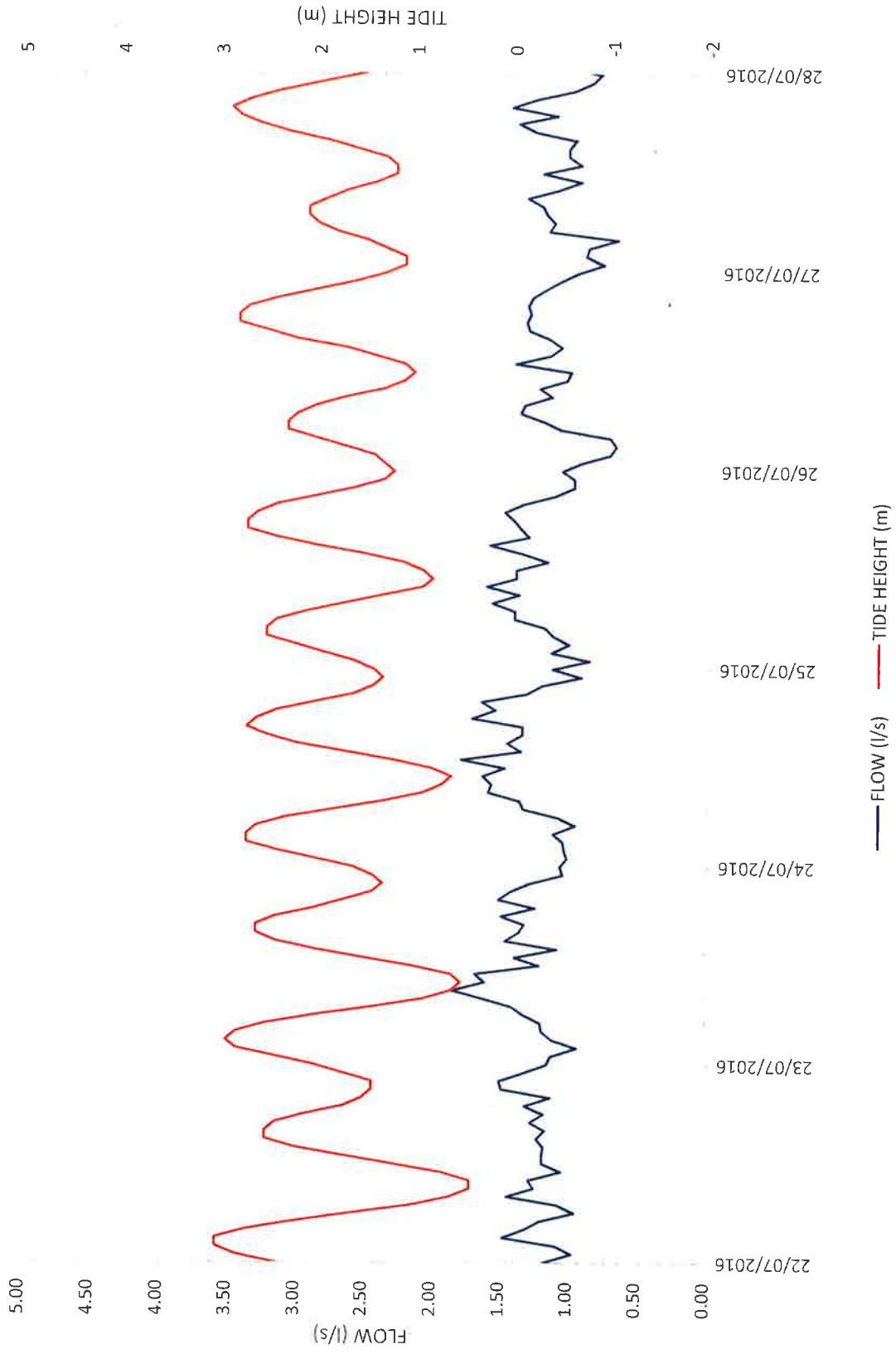


Ted Robbins, B.Sc., C. Tech.  
General Manager, Integrated Water Services  
Concurrence

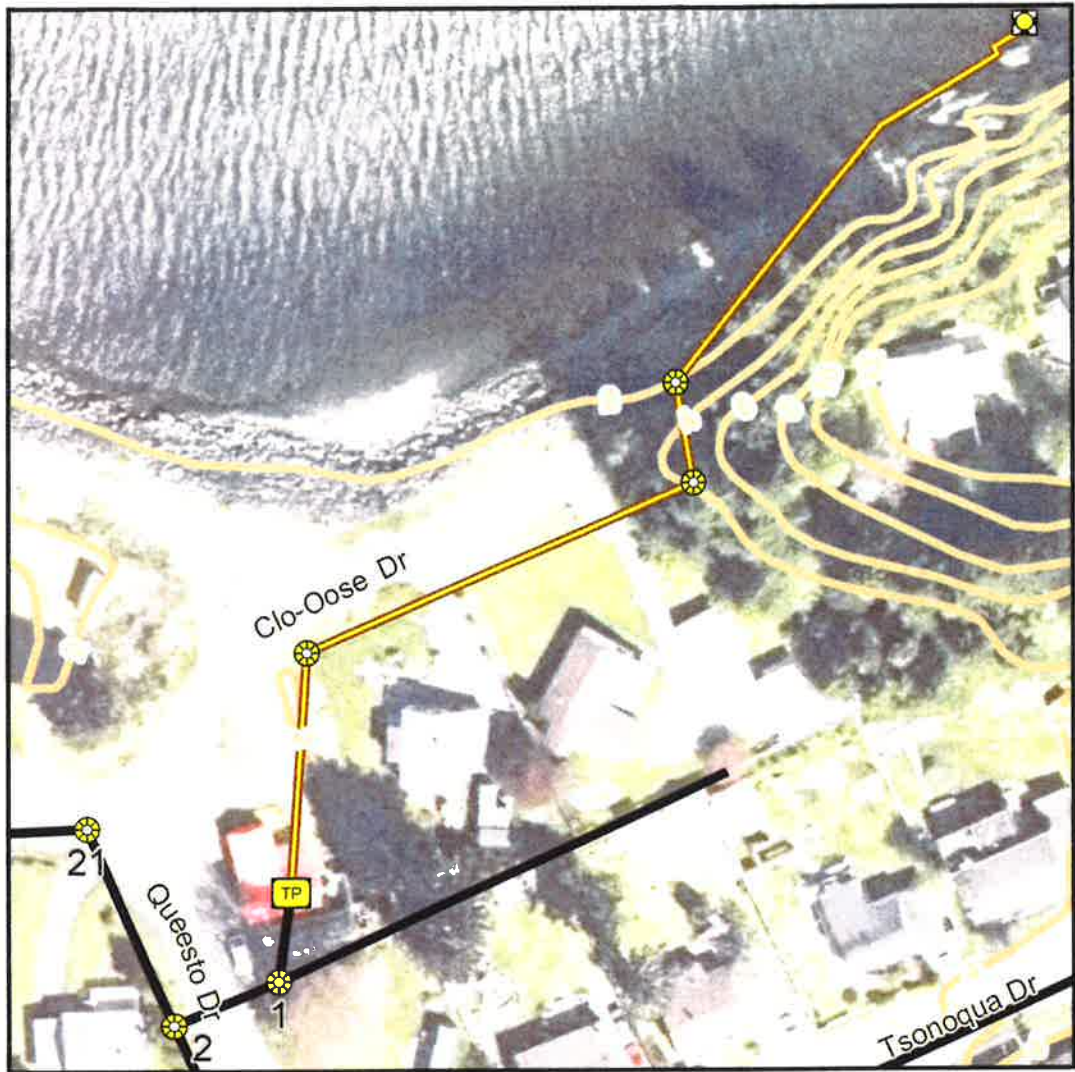
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Attachment: 3

# PORT RENFREW – TIDE LEVEL vs WASTEWATER FLOWS







- Wastewater Collector
- Wastewater Outfall
- TP Treatment Plant
- Discharge Point
- Manhole

1:1,000  
0 10 20 40 Metres  
UTM Zone 10N NAD 1983



DISCLAIMER

**Important** This map is for general information purposes only. The Capital Regional District (CRD) makes no representations or warranties regarding the accuracy or completeness of this map or the suitability of the map for any purpose. **This map is not for navigation.** The CRD **will not be liable** for any damage, loss or injury resulting from the use of the map or information on the map and the map may be changed by the CRD at any time.

September 2016 | LS\_PortRenfrewElevationGraphic\_11x17.mxd | gis@crd.bc.ca

Port Renfrew  
Relative Elevations at Beach Camp



Attachment 2

Lowest Manhole # 1  
Approx. Rim 3.2m  
Approx. Bottom 1.24m  
Approx. 70m from shore

4 Meter Contour  
3 Meter Contour  
2 Meter Contour  
1 Meter Contour  
0 Meter Contour  
-1 Meter Contour  
-2 Meter Contour  
-3 Meter Contour

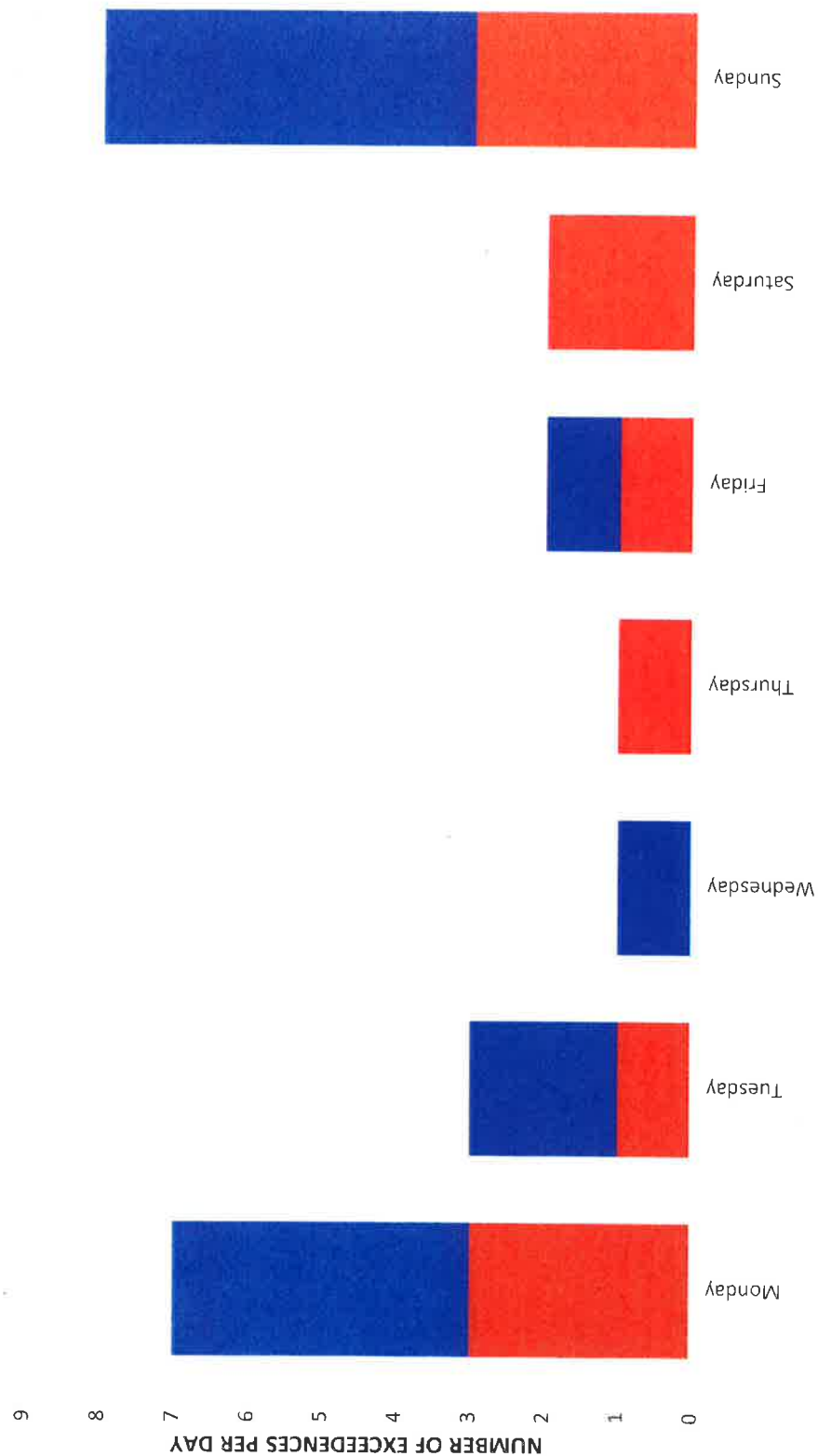
Approx. Height of 3m Tide

Lowest Normal Tide is  
1.9m below Mean Water Level

3m

Invert of Sewer Pipe

# PORT RENFREW TREATMENT PLANT FLOW EXCEEDENCES



■ JUN-AUG 2015 -- # DAYS FLOW EXCEEDS 50 m3 ■ JUN-AUG 2016 -- # DAYS FLOW EXCEEDS 50 m3



Making a difference...together

**REPORT TO PORT RENFREW UTILITY SERVICES COMMITTEE  
MEETING OF MONDAY, NOVEMBER 7, 2016**

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**SUBJECT   WATER SERVICE USER FEE - SINGLE FAMILY EQUIVALENT ALLOCATIONS**

**ISSUE**

To provide an overview of the water service user fee and single family equivalent (SFE) allocations for the Port Renfrew Water Service.

**BACKGROUND**

The Port Renfrew water system does not have meters installed on residential services. Some commercial properties do have water meters which are periodically checked for anomalous readings and flagged for investigation where atypical flow is identified, but they are not used for billing purposes.

Therefore, customers are charged for water use based on a fixed "single family equivalent" (SFE) basis. Bylaw 3847 authorizes the recovery of annual costs for utilities by means of parcel taxes and user fees (see Attachment 1). User fees are set out in Section 1 of Schedule "C" of the bylaw and are based on a fixed SFE cost that is established each year during the budget process. For other consumers that have different uses than a typical residential (single family) use, there is a table, (Table 1b), in the bylaw that provides a multiplier "N" to adjust the SFE allocation.

For Port Renfrew, if a particular building use is not designated in Table 1b, the SFE calculation is made using the *Minimum Daily Design Flow* as specified in the Sewerage System Standard Practice Manual (SSSPM). An example of how an SFE is calculated for a non-residential use is as follows:

What is the SFE equivalence of a school with 3 classrooms?

Table 1b indicates that a school has a single family equivalent multiplier "N" of 1.0 for each classroom. Therefore, the school would have a SFE equal to 3.0.

This process has been used to determine SFE's for various customers that are connected to the Port Renfrew water service. Typically, the SFE allocation is assigned to a structure/property when the owner initially applies for a water connection to the service.

The challenge with a SFE user fee system is that there is often a concern of inequitable water consumption between individual customers. In addition, without the ability to monitor individual



customer use, leaks on private properties may go un-noticed, potentially wasting a significant amount of treated drinking water from the system.

Therefore, a consumption based fee structure is usually seen as a better option to promote water conservation and equitable cost allocation. However, in order to implement a consumption based fee structure, water meters have to be installed on all water service connections. This would require about 140 new meters for the Port Renfrew water service.

Since this would be a significant cost to the service, it is recommended that funds be set aside over time in order to save up for the eventual transition to water meters. Meanwhile, it is recommended that any new connections to the service be required to install a water meter, at the applicant's cost, as part of the new connection.

In the meantime, if directed by the committee and funded by the service, staff could review the current SFE allocations for the existing water service connections and determine if any changes are warranted.

### **ALTERNATIVES**

#### **Alternative 1**

That the Port Renfrew Utility Services Committee recommend to the Electoral Area Services Committee to:

1. Direct staff to amend Bylaw 3847 to make it mandatory for meters to be installed and paid for by the applicant on any new connections to the Port Renfrew Water Service;
2. Direct staff to review the current SFE allocations for the existing water service connections; and
3. Approve funding in the amount of \$5,000 from the Port Renfrew Water Service capital reserve fund to conduct the SFE allocation review.

#### **Alternative 2**

That the Port Renfrew Utility Services Committee recommend to the Electoral Area Services Committee to:

1. Direct staff to amend Bylaw 3847 to make it mandatory for meters to be installed and paid for by the applicant on any new connections to the Port Renfrew Water Service; and
2. Direct staff to continue using the current SFE allocations for the existing water service connections.

### **IMPLICATIONS**

Alternative 1 – Amending the bylaw would formalize the requirement to install meters on all new water service connections. The current SFE allocations were determined when applications were received to connect to the water system some of which were many years ago. Conducting a review would require staff to investigate each structure connected to the system to confirm the use and size of the structure. This would also require a communication plan to inform customers of the review and that changes to SFE allocations could be implemented. The estimated cost to

complete the review includes communication costs, on-site investigations, documentation and report of findings. There are sufficient funds in the service's capital reserve fund to pay for the review without impacting the current capital expenditure plan.

Alternative 2 – Amending the bylaw would formalize the requirement to install meters on all new water service connections. Staff would continue to use the current SFE allocations and there would be no cost to the service to conduct a review.

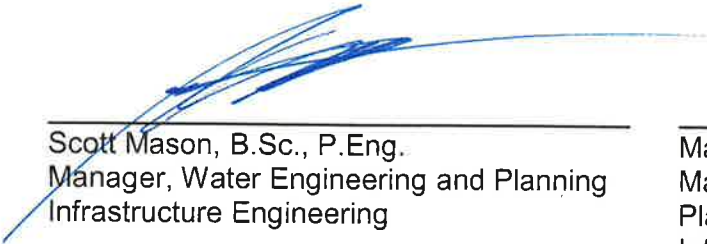
### **CONCLUSION**

The Port Renfrew water system does not have meters installed on residential services. Bylaw 3847 authorizes the recovery of annual costs for utilities by means of parcel taxes and user fees. There is often a concern of inequitable water consumption between individual customers with a SFE user fee system. The PRUSC should consider setting aside funds over time in order to save up for the eventual transition over to water meters, and then a consumption based fee structure could be implemented to promote water conservation and a more equitable payment for customers.

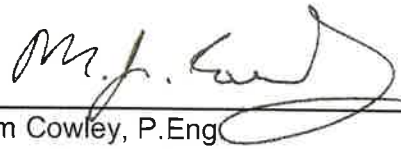
### **RECOMMENDATION**

That the Port Renfrew Utility Services Committee recommend to the Electoral Area Services Committee to:


1. Direct staff to amend Bylaw 3847 to make it mandatory for meters to be installed and paid for by the applicant on any new connections to the Port Renfrew Water Service;
2. Direct staff to review the current SFE allocations for the existing water service connections; and
3. Approve funding in the amount of \$5,000 from the Port Renfrew Water Service capital reserve fund to conduct the SFE allocation review.



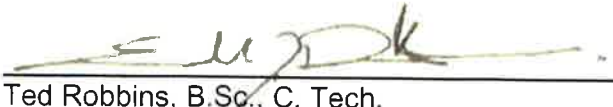
\_\_\_\_\_  
Scott Mason, B.Sc., P.Eng.  
Manager, Water Engineering and Planning  
Infrastructure Engineering



\_\_\_\_\_  
Malcolm Cowley, P.Eng.  
Manager, Wastewater Engineering &  
Planning  
Infrastructure Engineering



\_\_\_\_\_  
Ian Jesney, P.Eng.  
Senior Manager, Infrastructure Engineering  
Concurrence



\_\_\_\_\_  
Ted Robbins, B.Sc., C. Tech.  
General Manager, Integrated Water Services  
Concurrence

MC/Is  
Attachment: Bylaw 3847

**CAPITAL REGIONAL DISTRICT****BYLAW NO. 3847**

\*\*\*\*\*

**A BYLAW TO PROVIDE FOR FEES AND CHARGES PAYABLE FOR UTILITIES AND STREET  
LIGHTING WITHIN THE SOUTHERN GULF ISLANDS  
AND JUAN DE FUCA ELECTORAL AREAS**

\*\*\*\*\*

**WHEREAS:**

- A. Pursuant to section 803 and section 363 of the *Local Government Act*, the Board may, by bylaw, impose a fee or charge payable in respect of all or part of a service of the district or the exercise of regulatory authority by the Board.
- B. The Capital Regional District established services and facilities to supply, treat, convey, store and distribute water in the participating areas of the Southern Gulf Islands Electoral Area and Juan de Fuca Electoral Area (Skana Water Service, Surfside Park Estates Water Service, Lyall Harbour/Boot Cove Water Service, Magic Lake Estates Water System Local Service, Sticks Allison Water Local Service, and Wilderness Mountain Water Service).
- C. The Capital Regional District established services and facilities to collect, convey, treat and dispose of sewage in the participating areas of the Southern Gulf Islands Electoral Area (Magic Lake Estates Sewage System Local Service).
- D. The Capital Regional District established services and facilities to operate a street lighting system in the participating area of Port Renfrew in the Juan de Fuca Electoral Area.
- E. These bylaws authorize the recovery of annual costs by methods including:
  - (a) by way of an annual parcel tax; or
  - (b) by fees and charges to be imposed by bylaw under Section 363 of the *Local Government Act*.
- F. The Board wishes to establish a consolidated bylaw for the recovery of annual costs for utilities and street lighting in the Southern Gulf Islands and Juan de Fuca Electoral Areas.

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

- 1. The Board hereby authorizes and imposes fees and charges for the Service Areas shown from time to time on Schedules "A" of the following bylaws:
  - (a) Bylaw No. 3089, "Skana Water Service Establishment Bylaw No. 1, 2003";
  - (b) Bylaw No. 3087, "Surfside Park Estates Water Service Establishment Bylaw No. 1, 2003", as amended
  - (c) Bylaw No. 1873, "Outer Gulf Islands Magic Lake Estates Sewage System Local Service Establishment Bylaw, 1990";

- (d) Bylaw No. 2920, "Lyll Harbour/Boot Cove Water Service Establishment Bylaw No. 1, 2001", as amended;
- (e) Bylaw No. 1874, "Outer Gulf Islands Magic Lake Estates Water System Local Service Establishment Bylaw, 1990", as amended;
- (f) Bylaw No. 2556, "Sticks Allison Water Local Service Establishment Bylaw No. 1, 1997";
- (g) Bylaw No. 3503, "Wilderness Mountain Water Service Establishment Bylaw No. 1, 2008";
- (h) Bylaw No. 1746, "Port Renfrew Street Lighting Local Service Establishment Bylaw No. 1, 1989", as amended;
- (i) Bylaw No. 1744, cited as "Port Renfrew Sewer Local Service Establishment Bylaw No. 1, 1989", as amended; and
- (j) Bylaw No. 1747, cited as "Port Renfrew Water Supply Local Service Establishment Bylaw No. 1, 1989", as amended.

## 2. Interpretation

In this bylaw, unless context otherwise requires:

- (a) "**Applicant**" means a person who is the owner, lessee or tenant of an authorized premises and who has requested or applied for water or sewer service or for any other matter or thing under this bylaw from the Capital Regional District;
- (b) "**Board**" means the Board of Directors of the Capital Regional District;
- (c) "**Consumer**" means a person to whom a water or sewer service connection or street lighting has been provided by the Capital Regional District;
- (d) "**Construction Costs**" include costs of labour, materials and equipment;
- (e) "**CRD**" means the Capital Regional District;
- (f) "**Engineering Costs**" include costs of survey, design, permit acquisition, layout, inspection and as-constructed drawings;
- (g) "**Property**" means a Parcel which may or may not contain one or more buildings or other structures.
- (h) "**Service Abandonment**" an intentional relinquishment of the water service. A dwelling(s) that have been allowed to become uninhabitable would be considered to be abandoned.
- (i) "**Service Area**" means a service area specified in Section 1 above;
- (j) "**Service Line**" means the water supply pipeline from the property line to the primary building or structure on the property of a Consumer.
- (k) "**Sewer Service Connection**" means a pipe and all appurtenances necessary to connect a sewer main to a building sanitary sewer at the property line;

- (l) **"Single Family Equivalent"** means and includes a single family dwelling unit intended for the use or occupancy by one or more individuals as a non-profit household, and includes a dwelling unit in an apartment, condominium, duplex, or other multiple family facility.
- (m) **"Single Family Residential"** means a water or sewer service connection to a parcel of land having actual use identified by BC Assessment as a Single Family Dwelling, and which may include one secondary dwelling or suite;
- (n) **"Temporary disconnection"** means to shut off the water service at the Water Service Connection for a period of time not exceeding twelve months.
- (o) **"User Fee"** means a fee or charge imposed under Section 6 of this bylaw; and
- (p) **"Water Service Connection"** means a pipe and all necessary valves, connections, meters and other appurtenances necessary to connect a water main to a curb stop on the property line.

3. Water or Sewer Service Connection Fee

An Applicant for a Water or Sewer Service Connection in respect of real property within a Service Area shall, at the time of making an application for the service connection, pay the service connection fee set out in Schedule "A" hereto.

4. Water Service Turn On and Turn Off Fee

A Consumer in a Service Area requesting the turning off or turning on of the water supply at the curb stop under Section 22 or 24 of Bylaw No. 1792, "Water Regulations Bylaw No. 1, 1990", shall pay the applicable turn on or turn off fee set out in Section 1 of Schedule "B" hereto.

5. Water or Sewer Service Abandonment Fee

The owner of property in a Service Area wishing to discontinue water or sewer service shall pay the applicable abandonment fee set out in Section 2 of Schedule "A" hereto.

6. Household Pump Station Service Fee

Where a household pump station is required, the Consumer shall be responsible for the supply of the station and the Consumer shall be responsible for the installation, operation, repairs and replacement of the station. The CRD may service or carry out repairs to the station at the Consumer's request and shall charge a fee for the service as shown on Schedule "D".

7. Utility Bill Appeal

- (a) Any Consumer obtaining a utility bill may formally register a complaint or dispute with the General Manager regarding the amount of any charge on the utility bill, no more than thirty (30) days from the date of billing.

- (b) The General Manager will review the complaint and may reduce the utility bill amount if:
  - i) there is an error in the calculation of the bill amount; or
  - ii) another circumstance exists that makes payment of the full bill amount unjust.

8. Utility Bill Adjustments for Leaks in the Service Line

- (a) No adjustment shall be made for leaks in internal plumbing systems and fixtures, including faucets and toilets, or leaks in an irrigation system on the Property.
- (b) The General Manager may make an adjustment to a utility bill in the case of a water leak and may take into consideration the cause of the water loss, the opportunity for the Consumer to detect the leak, the possibility of Consumer negligence or fault regarding the leak, and the promptness with which the leak was stopped or repaired after discovery.
- (c) To qualify for a utility bill adjustment, the leak must have been caused by circumstances beyond the Consumer's control, such as a break in the Service Line, a mechanical malfunction, water theft, vandalism, or other unusual or emergency conditions.
- (d) An owner must provide tangible proof that all water leaks have been repaired; the CRD Integrated Water Services has the authority to inspect the repair prior to considering a water leak adjustment.
- (e) The General Manager, upon receiving an application for a water leak adjustment, may adjust the amount of any utility bill for a Consumer where the owner satisfactorily proves there was a water leak(s) originating within the Consumer's Service Line.
- (f) If the General Manager permits a utility bill adjustment, the Consumer shall assume responsibility for the normal amount of water consumed at the current retail water rate based on the same billing period's consumption in the previous year; CRD Integrated Water Services shall absorb the remainder of the water consumption cost.
- (g) CRD Integrated Water Services will only consider a water leak adjustment for the billing period the leak was detected and the previous billing period in which the leak occurred to a maximum of two (2) billing periods.
- (h) Where the sewer charges are based on the water consumption volumes and a water leak adjustment has been approved, the consumption for sewer charges will be adjusted in accordance with the water consumption adjustment.
- (i) Where the sewer charges are based on the water consumption volumes and a water leak is in an irrigation system, the General Manager may adjust the sewer charges based on water consumption during the same billing period in the previous year; CRD Integrated Water Services shall absorb the remainder of the sewer consumption cost.
- (j) A sewer leak adjustment will be considered only for the billing period the water leak was detected and the previous billing period in which the leak occurred to a maximum of two (2) billing periods.
- (k) Only one leak adjustment for water and sewer per Property within a twelve (12) month period shall be permitted.

- (l) A leak adjustment application form must be submitted within 30 days of the billing date of the utility bill.

9. Water Meter Readings

- (a) If for any reason CRD Integrated Water Services shall be required to estimate the water consumption of a Property for any given period, the following procedure shall be followed:
  - i) The estimate shall be based on the water consumption history and the application of the use by the Consumer on the Property for which a water estimate is required; and,
  - ii) In the event that no sufficient history exists to produce a reasonable estimate, the estimate shall be calculated on the basis of an average of the water consumption for similar properties in the same area; the minimum estimate allowed will be ten (10) cubic metres of water per week.

10. Temporary Disconnection of Water Service Connection

- (a) The Consumer requesting their Water Service Connection to be shut off for a period of time not exceeding twelve months must give written notice to the CRD Integrated Water Services to turn off the water.
- (b) Despite shutting off the water service, the Consumer must pay the annual user charge when the Water Service Connection is shut off by temporary disconnection.

11. Street Lighting

Every person owning a parcel of land on which a dwelling or business is located within a street lighting local service area shall be deemed to be supplied with street lighting.

12. Water, Sewer and Street Lighting User Fees

The User Fees set out in Section 1 of Schedule "C", are hereto imposed on each Consumer in a Service Area and shall be paid in accordance with the following:

- (a) User fees invoiced by the CRD are due and payable by the owner of the parcel within thirty (30) days from the date the bill is issued;
- (b) User fees shall be payable each three months as billed by the CRD;
- (c) A late payment charge of 1.5% of the past due amount shall be added to all delinquent water and sewer bills;
- (d) All payments received will be applied firstly against arrears, and then to current balances; and
- (e) Amounts outstanding after penalty dates will be considered in arrears.

13. Date Effective

Section 8 of this bylaw comes into effect as of 01/07/12.

14. Repeal

Bylaw No. 3778, cited as "Southern Gulf Islands and Juan de Fuca Electoral Areas Sewer, Water and Street Lighting Fees and Charges Bylaw No. 1, 2011" and any amendments thereto are hereby repealed.

15. Citation

This Bylaw may be cited as "Southern Gulf Islands and Juan de Fuca Electoral Areas Utilities and Street Lighting Fees and Charges Bylaw No. 1, 2012".

READ A FIRST TIME THIS	12 <sup>th</sup>	DAY OF	December	2012
READ A SECOND TIME THIS	12 <sup>th</sup>	DAY OF	December	2012
READ A THIRD TIME THIS	12 <sup>th</sup>	DAY OF	December	2012
ADOPTED THIS	12 <sup>h</sup>	DAY OF	December	2012

Original signed by Alastair Bryson

Original signed by Sonia Santarossa



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**SCHEDULE "A"****1. Water and Sewer Service Connections and Charges**

The British Columbia Plumbing Code shall apply to all connections made to a CRD water or sewer system, together with the conditions as set forth hereinafter:

- (a) Any connections not conforming to the requirements set out in the British Columbia Plumbing Code shall not be connected to a CRD water or sewer system.
- (b) The connection charge for a water or sewer service connection shall be the actual cost for the connection, calculated as follows:
  - (i) Engineering Costs:  
Including survey, design, permit acquisition, layout,  
inspection and as-constructed drawings \$ \_\_\_\_\_
  - (ii) Construction Costs:  
Including labour, materials, and equipment \$ \_\_\_\_\_
  - (iii) Administration Costs:  
At 15% of the sum of (i) + (ii) \$ \_\_\_\_\_

ACTUAL COST = Sum of (i) + (ii) + (iii) \$ \_\_\_\_\_
- (c) Despite subsection 1(b),
  - (i) In the Skana Water Service Area, the minimum connection charge shall be \$1,000.
  - (ii) In the Magic Lake Estates Sewer Service Area and the Magic Lake Estates Water System Service Area, the minimum connection charge shall be \$500..
  - (iii) For all other Service Areas, the minimum connection charge shall be \$400.
- (d) Estimated fees payable herein shall be paid to the CRD on application for connection to the utility. The difference between fees paid upon application and the actual cost for the connection will be billed or refunded to the Applicant.

**2. Water or Sewer Service Abandonment Fee**

Pursuant to Section 5, the fee for abandonment of a water or sewer service connection is the actual cost to the CRD to remove the service connection, calculated in accordance with the formula set out in the above Section 1 of Schedule "A" hereto.

**SCHEDULE "B"****1. Water Service Turn On and Turn Off Fee**

Pursuant to Section 4, the fee for turning on or turning off the water supply at the curb stop is the following. The fees payable herein shall be paid to the CRD on application for the service.

<b><u>Service Area</u></b>	<b><u>During Normal Working Hours (07:30 – 16:00) Monday through Friday (non- inclusive of statutory holidays)</u></b>	<b><u>During Non-Working Hours</u></b>
Lyall Harbour / Boot Cove Water	No fee	No fee
Magic Lake Estates Water Sticks Allison Water	No fee	\$25.00
Skana Water Surfside Park Estates Water	\$25.00	\$75.00
Wilderness Mountain Water	\$50.00	\$50.00

**SCHEDULE "C"**1. Water, Sewer, and Port Renfrew Street Lighting

a) For Single Family Equivalent, the user fees payable by Service Area shall be:

Service Area	Annual Charge: 25% of which is billed each 3 months
Skana Water	\$813.00 per Single Family Equivalent connected to the water system
Surfside Park Estates Water	\$953.30 per Single Family Equivalent connected to the water system
Magic Lake Estates Sewer	\$272.00 per Single Family Equivalent connected to the sewer system
Lyll Harbour/Boot Cove Water	\$390.31 per Single Family Equivalent connected to the water system
Magic Lake Estates Water	\$250.00 per Single Family Equivalent connected to the water system
	Quarterly Consumption Charge, effective as of July 1, 2013: $>50 \text{ m}^3 = \$0.50 \text{ m}^3$ $>80 \text{ m}^3 = \$1.00 \text{ per m}^3$
Sticks Allison Water	\$1149.12 per Single Family Equivalent connected to the water system
	Excess Consumption Fee - for metered water use per service connection in excess of 136 cubic metres per three months: \$2.20 per cubic metre
Wilderness Mountain Water	Consumption Charge: \$18.00 per month for each Single Family Equivalent connected to the water system. Annual User Charge: \$570.59 per annum for each Single Family Equivalent connected to the water system.
Port Renfrew Water Annual User Charge	\$211.15 per Unit (see Section 1b) billed in four equal payments
Port Renfrew Sewer Annual User Charge	\$421.17 per Unit (see Section 1b) billed in four equal payments
Port Renfrew Street Lighting	\$33.38 per User

- b) For other Consumers, the annual charge, 25% of which is billed each three months, is calculated as "N" times the total annual Single Family Equivalent. "N" is determined as outlined in the following chart, except as noted in Sections 1c and 1d.

Use	"N"
Bed and Breakfast – each building	1.00
Hotel/Motel – each housekeeping unit	1.00
Cabin – each unit	1.00
Mobile home park – per space	1.00
Commercial building housing 1 business	
Up to 3 employees	1.25
4 or more employees	1.50
Commercial building housing more than 1 business	
Each business up to 3 employees:	1.25
Each business with 4 or more employees:	1.50
Restaurant	2.00
Church	1.00
School – for each classroom	1.00
Hospital – for each bed	1.00
Other – for each 1,360 litres of daily winter water consumption. Estimated flows will be based on regulations or guidelines issued pursuant to the BC <i>Health Act</i> .	1.00

- c) For the Lyall Harbour / Boot Cove Water Service Area:

Use	"N"
Commercial building housing 1 business	
Up to 3 employees	1.00
4 or more employees	2.00
Commercial building housing more than 1 business	
Each business up to 3 employees:	1.00
Each business with 4 or more employees:	2.00

- d) For Port Renfrew Water and Sewer Service Areas:

If the Single Family Equivalent has not been designated in 1b, the unit calculation will be based on the **Minimum Daily Design Flow** as specified in the *Sewerage System Standard Practice Manual*, Version 2, September 21, 2007, prepared by the BC Onsite Sewage Association.

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**SCHEDULE "D"****1. Household Pump Station Service Fee**

Pursuant to Section 6, the charges for services performed on a household pump station are as follows:

- (a) Inspecting and Servicing of Pump Unit at Site  
To inspect, clear off grease, and/or blockage, and/or service pump \$80.00
- (b) Removal and Repair of Pump Unit Where Pump Must be Removed for Repair  
The cost to remove and repair the pump shall be the total of Items (i), (ii) and (iii) below:
  - (i) To remove pump from pump station \$80.00
  - (ii) Repair costs for pump unit to be 230% of the cost of the repair parts
  - (iii) To re-install pump and test \$80.00
- (c) Repair of Electrical Components of the Pump Stations  
The cost to repair the electrical components of the pump station shall be 230% of the cost of the repair parts which have been installed

Capital Regional District

Application for Connection to Sewer/Water Utility

PLEASE PRESS HARD YOU ARE MAKING FOUR (4) COPIES

Pursuant to the regulations applicable to the Utility indicated below

I, Miko Seymour (MSK Solutions Inc.), being the owner or acting with the owner's consent hereby make application for a utility connection to the property indicated below.

I agree to be subject to all Bylaws, Rules and Regulations and to pay such rates as are thereby specified.

Name of Owner <u>Pacific Gateway Marine and Sport Fishing Inc.</u>	Name of Contractor <u>To be determined</u>
Street <u>96 740 Hardy Road</u>	Street _____
City <u>Mill Bay</u>	City, Village _____
Prov. <u>BC</u> Postal Code <u>V02 2P1</u>	Prov. _____ Postal Code _____
Phone No. <u>250-412-5509</u>	Phone No. _____

Utility/Utilities to which a connection is requested.

SEWER UTILITIES

- ☐ Magic Lake Estates  
☐ Ganges  
☐ Maliview Estates  
☐ Port Renfrew  
☐ Other (specify) \_\_\_\_\_

WATER UTILITIES

- ☐ Magic Lake Estates  
☐ Fernwood  
☐ Highland  
☒ Port Renfrew  
☐ Lyall Harbour/Boot Cove  
☐ Other (specify) \_\_\_\_\_

Description of Property to which a connection is requested.

Street Address (if applicable) 1786 Parkinson Road

Legal Description - Lot Number 1 Section \_\_\_\_\_ Plan No. EPP24972

Tax Assessment Folio Number \_\_\_\_\_

INTENDED USE OF PROPERTY Marina and Recreational Cottages

Date January 29, 2016 Signature of applicant \_\_\_\_\_

FOR OFFICE USE ONLY

Date application received \_\_\_\_\_ Drawings received: Yes \_\_\_\_\_ No \_\_\_\_\_  
 Application reviewed by \_\_\_\_\_ Date payment received \_\_\_\_\_  
 Date work order issued \_\_\_\_\_ Date installation complete \_\_\_\_\_

Your application for a utility connection has been approved as detailed below. This connection will be installed upon receipt of the connection fee and necessary approvals. The fee for this connection is: \$ \_\_\_\_\_

Details of Connection: \_\_\_\_\_

Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

March 4, 2016

File: 14-174

Capital Regional District  
Integrated Water Services  
479 Island Highway  
Victoria, BC, V9B 1H7

By email: mcowley@crd.bc.ca

**Attention: Malcolm Cowley, P.Eng., Senior Manager**  
**Reference: Port Renfrew Management Ltd. – Request for Water Services**

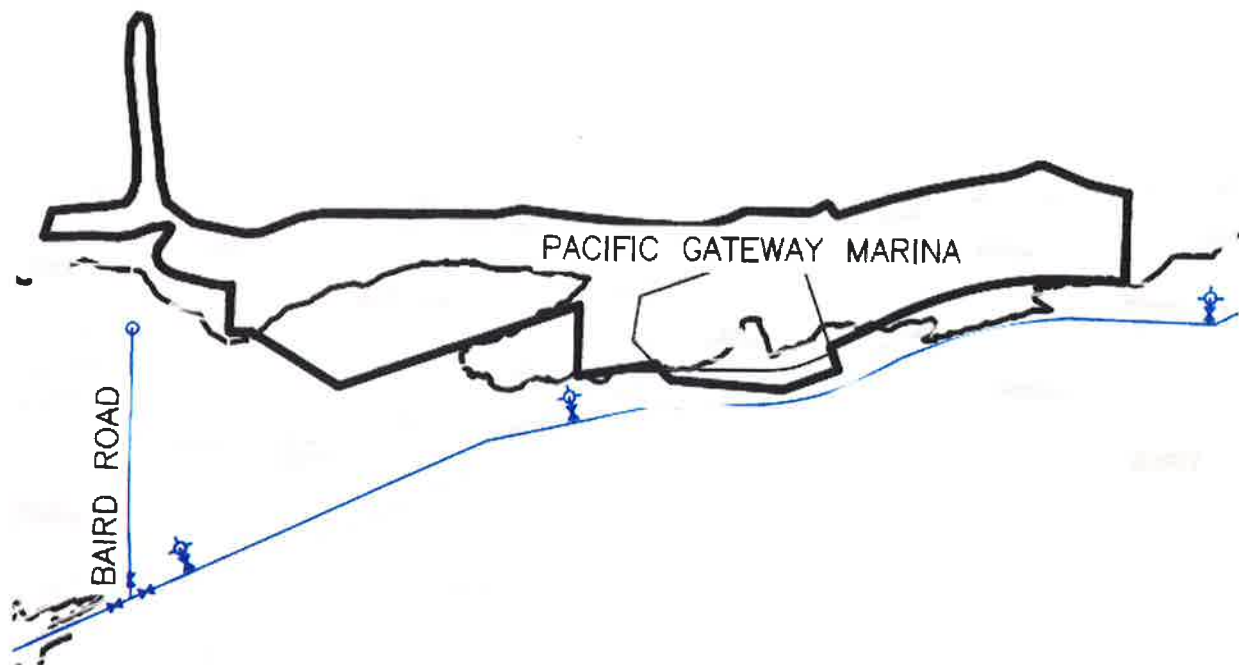
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## INTRODUCTION

MSR Solutions has had various meetings with the Capital Regional District, Integrated Water Services; the Juan de Fuca Local Area Director, Mr. Mike Hicks; and Port Renfrew Utility Services Committee. The purposes of those meetings have been regarding phasing of water system improvements in the area, which included the Pacific Gateway Marina and Sport Fishing Inc (PGM). Now that the marina works are proceeding, and development of the upper lands is proposed, PGM is applying to the Port Renfrew Utility Services Committee (PRUSC) to be included within the Snuggery Cove Water Service Area.

The property is part of a potential marina and tourism commercial housing development along Parkinson Road identified as PID: 028-991-125. A portion of the property at 17086 Parkinson Road is within the Beach Camp Water Service Area, which we feel should be acceptable to allow an immediate connection for current needs. We also note the inclusion of the property at the end of Baird Road, previously referenced as Little Renfrew 2, which has three water service allocation units from previous gifted works of Three Point Properties, as the previous developer

PGM seeks to secure and obtain water to the development, including if necessary, expanding the service area to incorporate locating waterfront structures for the marina, as part of a larger development as noted below.



### PROPOSED DEVELOPMENT

A Temporary Use Permit (TUP) has been provided for the fish processing plant, which will also support regional development initiatives for the Town of Port Renfrew, and the Pacheedaht First Nation. It is anticipated to be operational by May 10, 2015, and will require a commercial water service as soon as possible.

A building permit will be sought for waterfront buildings in the coming weeks, which will require servicing. Water is sought from PRUSC for the marina uses, with a holding tank provided for sewage, until the sewer system is completed on the upper property. PGM recognizes the properties are subject to a successful rezoning application process, with the following development initiatives proposed.

- 50-60 slip marina with dryland storage for 40 boats
- Fish processing plant with waste products processed for crab food
- Marina office and marina facilities
- 22 – two bedroom tourism commercial cabins
- 20 guest lodge and 4 – 2 bedroom tourism commercial cabins on the property above the marina previously noted as “Little Renfrew” with Three Point Properties.

### CRD COSTS AND DESIGN FLOW CHARACTERIZATION

The CRD establishes water consumption based on a single family home typical usage or Single Family Equivalent (SFE). The CRD references their Bylaw No. 3847 (*A Bylaw to Provide for Fees and Charges Payable for Utilities and Street Lighting within the Southern Gulf Islands and Juan de Fuca Electoral Areas*). The Bylaw establishes service connection fees as costs of engineering



design, approvals and inspections; construction costs to complete the works; and administration costs of an additional 15%. The minimum connection charge is noted at \$400, and an annual user charge of \$203.38, per single family home.

## **WORKS REQUIRED FOR CONNECTION TO WATER SYSTEM**

### **ONSITE WORKS APPROVED**

No onsite works have yet been approved or constructed on the property, as it is still subject to the conditions of a building permit or rezoning, and any approvals to eventually be issued by the Ministry of Transportation and Infrastructure (MoT). These works will require inclusion of the remaining property into the Port Renfrew water system and approval by Island Health of the water system extension.

PGM is considering the following development stages for the property, subject to compliance with the Temporary Use Permit (TUP), and future rezoning requirements.

- Submission of a building permit to allow construction of the marina facilities and the requirement for a 39 mm water service from 17086 Parkinson Road, or alternatively from the Baird Road property access.
- Subject to the rezoning, proceeding with the cottages and lodge as market conditions prevail and provision of appropriately sized water service to the units for maintaining domestic and fire flow needs.

### **CRD OFFSITE WORKS**

In discussions with CRD Integrated Water Services, they have noted the ability to provide water to site subject to gifting of various upgrading requirements, as opposed to a Development Cost Charge. The water system is currently being upgraded with well pump and booster pump systems to achieve a higher design flow, and additional reservoir storage as requested by PRUSC.

MSR Solutions has previously identified other concerns for PRUSC with respect to maintaining a viable water conveyance and distribution system. This includes future upgrades to the AC conveyance and supply main connecting the water treatment facilities and the reservoir. We have also identified a need to provide a booster station and water main upgrades to improve the low water pressures in the Beach Camp area, all as per our correspondence with the CRD and PRUSC in July 2015.

### **PROPOSAL FOR CONSIDERATION BY UTILITY COMMISSION**

The PGM property is already primarily within the Beach Camp Water Service Area with the exception of the commercial needs for the fish processing plant. We understand some capacity for water has already been allocated for the Baird Road development area (3 SFE) through previous commitments to the original development proposals, and no further connections can be supported unless system improvements can be provided by means of gifting of identifiable works.

The entire development is estimated to have a single family equivalence (SFE) of 30 units. This is based on past precedence of cottages being 0.5 SFE, and estimating commercial needs. We offer the following as a basis of the SFE loading.

- 50-60 slip marina average 20-40 Lpd/slip or about 4,000 Lpd (3 SFE)
- Possible fish processing plant with waste products processed for crab food. Wash water is typically in the area of 5-7,000 Lpd at peak use (5 SFE)
- Marina office and marina facilities (included in marina slips) (3 SFE)
- 26 – two bedroom tourism commercial cabins (13 SFE)
- 20 guest lodge assumed equivalent at 2 rooms equivalent to a cottage plus group facilities (6 SFE)

Total equivalency is estimated at 30 SFE, subject to further discussion with PRUSC and the CRD. On that basis, we recognize similar developments have gifted works to PRUSC in the past at approximately \$8,000 per SFE, or for PGM at about \$216,000 (as 3 SFE already allocated). Subject to discussions with PRUSC and other developments in the area, PGM would be supportive of assisting in development of a booster pump station located adjacent to the reservoir sites to boost pressure under fire flow conditions in the Snuggery Cove area by approximately 250 kPa (35 psi). Alternatively, PRUSC may consider allocating the costs to a reserve fund for future replacement of the AC supply main between the treatment and reservoir sites.

In return, the PRUC will agree to allow Pacific Gateway Marina and Sport Fishing Inc. to install a 150 mm water service (including 100 mm water meter) off Parkinson Road, and a 75 mm water service and meter off Baird Road, all subject to CRD and Island Health (VIHA) approvals. All servicing costs associated with extending of service to the site and within the site will be at PGM's own cost.

## **SUMMARY**

The options proposed to PRUSC either as a direct cash gift, or booster pump station improvements within Snuggery Cove in concert with other developments will provide further improvements to the PRUSC water system and reliability.

There is an opportunity for the both parties to accept the above noted option which will provide long term benefits to the Port Renfrew water system at no additional expense to the existing water users. The developments, will provide an immediate boost to the community and lifestyle, which will continue the longer term support of creating a vibrant and sustainable Port Renfrew.

We believe the above is a workable solution, and request the CRD to support the Port Renfrew Utility Commission and Local Area Director in allowing the contributions to be provided by PGM, as noted above, and potentially the improvements to be installed.

We would be pleased to meet with you at your convenience to discuss and finalize an interim agreement with the various parties, such that the water service can be provided now, and the remaining works pursued through the regulatory approval channels.

If you have any questions, or require additional information, please contact the undersigned.

Sincerely,

**MSR SOLUTIONS INC.**



Mike Seymour, ASCT, Eng. L.

Manager, Water & Wastewater Systems

Enclosure: CRD application for water service

cc Pacific Gateway Marina and Sport Fishing Inc., Mr. Paul McFadden  
Juan de Fuca Local Area Director, Mr. Mike Hicks  
Port Renfrew Utility Services Committee. Rob Wilson, Chair  
CRD Juan de Fuca Electoral Area Planning Services, Mr. Ian Lawrence



**Pacheedaht First Nation**

350 Kalaid Street  
Port Renfrew, BC  
V0S 1K0

Phone: (250) 647-5521  
Fax: (250) 647-5561

Correspondence  
Item 2

August 31, 2016

**Port Renfrew Local Services Committee**

We wish to formally request inclusion in the Port Renfrew water service area for our new service station on Parkinson Road. It is located on IR1 and at present has no civic address. We will include a map showing the location.

Mike Conlin is our project manager and is authorized to deal with this matter on our behalf.

Thank you



Chris Hopkins

Band administrator

Pacheedaht First Nation

250-647-0046

NOTES from AB. INITIATIVES

- 1" LINE

- DRAWINGS IN THE MAIL

- ATTACHED PIC

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**Sue Hallatt**

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**From:** Mike <mconlin@islandnet.com>  
**Sent:** Tuesday, September 06, 2016 2:41 PM  
**To:** Sue Hallatt  
**Subject:** Pacheedaht service station

**Categories:** Purple Category

Hi Sue

We are requesting a 1" connection, as that should be ample for our needs. I will send you a draft lot plan from my other computer. I am assuming the connection would have to be on Parkinson Rd.

Let me know if you need any further info.

Thanks

Mike conlin

Project Manager

Pacheedaht First Nation

Mike

Sent from my iPlate



Parkinson Road

power pole

Natural Drain

drain

culvert

trial

office

al

60 AMPS  
picnic area picnic area

septic field