



**Hemlock Utility**  
SERVICES LTD.

**Water Rates Application**  
**F2025-F2027**

**29 April 2024**

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## 1 INTRODUCTION

### 1.1 Application Overview

Hemlock Utility Services Ltd. (**Hemlock** or **Utility**) applies to the BC Comptroller of Water Rights (**Comptroller**) for rate changes in fiscal years<sup>1</sup> F2025, F2026 and F2027 (the **test period** or **rate-setting period**)(**Application**).

The rates for residential and commercial service currently in effect in F2024 were initially approved by the Comptroller effective F2021 and have remained at the levels approved since that time. This Application is notable in requesting a step change increase in rates to forestall continued under-recovery of the cost of service and accumulating operating losses.

As reviewed in detail in this Application, current cost recovery is not sufficient to support Hemlock's obligation to provide safe, reliable, and cost-effective water utility service for our customers. Annual rate increases over the test period in the range of 30% on average are required as a foundation to meet customer and Utility needs going forward. Key drivers include the need to ensure a full staff complement is employed to support water system operations, administrative functions, and management oversight. Repairs and maintenance costs are escalating as the aging water system drives increasing complexity and costs to ensure water supply is safe and available on demand.

The projected annual costs to customers may not be out of range to the amounts faced by customers of other small water utilities, but Hemlock acknowledges that transitional impacts between current and proposed rates may be significant in percentage terms. Hemlock has taken care to review the key factors that drive the proposed revenue requirements and rates to assist moderation of the annual impact to customers to the extent practical and reasonable overall. For example, under the rates as proposed, Hemlock has accepted a degree of risk that working capital requirements will be greater than forecast, that projected inflation will persist at elevated levels and that projected Repairs and Maintenance costs will remain high at F2024 levels. Projected annual rate increases may otherwise have been in the range of 50% per year over the test period, on average, if the above factors were fully accounted for in projected revenue requirements.

This Application is organized into four main sections as follows:

**Section 1 – Introduction** describes the Hemlock Water Utility and reviews the specific business priorities and cost drivers that inform the overall context under which this Application is filed. Section 1 includes a review of key legislation that may guide the Comptroller's review of the Application. Section 1 concludes with a summary of the regulatory approvals being sought through this Application;

**Section 2 – Revenue Requirements** sets out the forecast revenue requirements for the F2025-F2027 test period. Section 2 is comprised of a review of: 1) forecast Operating and Maintenance (**O&M**) expenses in, 2) Capital projects and funding, 3) Depreciation Study results and forecast values, and 4) the balance of and targeted contributions to the Replacement Reserve Fund (**RRF**);

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<sup>1</sup> For the period ending April 30<sup>th</sup> each year.

**Section 3 – Rates** reviews the structure of the current fixed charges and a proposed rate structure going forward that disaggregates fixed charges for targeted recovery, respectively, of: 1) the cost of service for utility operations, 2) contributions to the RRF, and 3) ongoing recovery of the remaining balance of the Shareholder Loan. Section 3 reports the historical actual and forecast customer count by customer type, which are the billing determinants for rate-setting. Proposed rates for the F2025-F2027 test period are then set out together with a review of residential customer bill impacts. Section 3 highlights the sensitivity analyses that informed a balanced approach to cost of service determinations and an intended mitigation of forecast customer bill impacts over the test period; and

**Section 4 – Terms and Conditions** sets out proposed new terms governing Utility liability protection, as well as updates to certain standard charges.

Summary schedules of the financial information, billing determinants and rate determinations that support the Application are provided following the sections above. Appendix 1 presents proposed F2025 rates for interim approval while review of the Application proceeds. Appendix 2-A provides a clean copy of the proposed Water Tariff for acceptance by the Comptroller as per the proposals of this Application. Appendix 2-B is a blackline version to highlight the component changes to the rates and terms and conditions. The most recent Depreciation Study on file with the Comptroller is attached at Appendix 3 for reference.

## 1.2 Hemlock Utility Services Ltd.

Hemlock Utility Services Ltd. is a privately held corporation that owns and operates a water system serving the community and resort at Sasquatch Mountain. Hemlock is regulated by the Comptroller under the *Water Utility Act* and the *Utilities Commission Act (UCA)*. In addition to the water system, Hemlock also provides electricity distribution service and sewer service.

The water system currently serves approximately 270 customers. The system was installed between 1976 and 1980 and was built to provide raw water to the community. In that time the standards for potable water have changed, resulting in a boil water advisory for the community in 2005. The method of water treatment during that time was a simple chlorine injection on a solar panel. In 2015, a new treatment facility was constructed to meet the current drinking water standards. On October 13, 2016 the boil water advisory was rescinded.

The production of potable water and the operation of the new treatment facility overall has increased the operation and maintenance requirements for the Hemlock water system. The treatment facility requires greater labour resource requirements as compared to when only the chlorinator was in place. The increase in total labour resources are driven for example by the time required for filter cleaning, UV maintenance, data logging and general utility management. The treatment facility building requires more upkeep with increased snow removal needs and a backup generator.

Maintenance requirements on the water system are also increasing. Cleaning and maintenance projects that were completed every 4 to 5 years are now annual expenses. An operator is required to be on call 24 hours a day for any treatment issues and the facility routinely requires attention.

Major leaks have been a regular occurrence in the past 15 years. Repairs are completed as required, but water mains require constant maintenance. This is expected to remain the trend until full replacement of the distribution system occurs.

### 1.3 Legislative Context

In view of the unique cost drivers and project requirements set out in this Application, Hemlock considers it pertinent to review key legislative context under which the Application is filed.

The Comptroller's review of this Application may be guided in part by Sections 59 and 60 of the UCA.

Section 59 provides that a rate is "unjust" or "unreasonable" if the rate is:

- (a) more than a fair and reasonable charge for service of the nature and quality provided by the utility,
- (b) insufficient to yield a fair and reasonable compensation for the service provided by the utility, or a fair and reasonable return on the appraised value of its property ...

Section 60 of the UCA provides that the Commission must have due regard to the setting of a rate that is not unjust or unreasonable within the meaning of section 59, to in part provide the public utility for which the rate is set a fair and reasonable return on any expenditure made by it to reduce energy demands, and to encourage public utilities to increase efficiency, reduce costs and enhance performance.

This Application highlights the key drivers of the necessary rate changes and project approvals that will support ongoing safe, reliable and cost-effective supply of potable water to the community. Further, a proposed project to implement metering of water consumption and to undertake design and implementation of usage rates will support efforts to improve the fair allocation of costs between customer and the efficient use of water resources overall.

### 1.4 Requests for Approval

Hemlock is seeking Orders of the Comptroller granting the approvals described below pursuant to the noted sections of the legislation:

1. Interim approval, effective May 1, 2024, and pursuant to sections 58 to 60 and 90 of the UCA and section 15 of the Administrative Tribunals Act, of the rates set forth in Schedule 11 of the Application and in Appendix 1.
2. Permanent approval, effective May 1, 2024, and pursuant to sections 58 to 60 of the UCA, of the rate structures and rates for F2025-F2027 that result from the proposals as structured and as set out in the sections 3.2 and 3.3 of the Application and in Schedules C and D of the proposed Water Tariff at Appendix 2-A; and

3. Approval of a Water Meter Project and of authorization to seek a bank loan to fund implementation of the project in F2025, with customer funding to be determined subject to a rates compliance filing later in F2025 when the project is complete and full costs are known. Please refer to section 2.2.4.

Further to the request for the interim approval of rates, as set out in Schedule 11 the proposed interim residential and commercial rates reflect a rate increase under the existing flat rate design that targets equivalent revenues as projected under the proposed rate structures and rates of this Application, as summarized in Schedule 1.

The approval of interim rates while review of the Application proceeds will therefore allow incremental rate increases to be applied effective May 1, 2024, and to not be encumbered by integration of the proposed rate structure changes set out in the Application. Any difference between interim approved and permanent approved rate increases would be refunded or recovered from customers with interest, and permanent approval of rate structure changes could be applied on a go forward basis effective the date of the Comptroller's decision, or as otherwise determined.

### **1.5 Contact Information**

All communications with respect to this Application should be addressed to:

**Angela Roy**  
**Accounting Manager**  
**Hemlock Utility Services Ltd.**  
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## 2 REVENUE REQUIREMENTS

### 2.1 Operations and Maintenance

Hemlock’s Operating and Maintenance (**O&M**) expenses account for a significant proportion of its revenue requirements each year. Table 1 and Figure 1 below present a summary of the Actual, Projected and Forecast O&M for the years F2021-F2027. The annual projections for F2024 are based on 8 months of actuals through December 2023. A review of the O&M category cost drivers is presented in the sections that follow.

The key drivers of O&M are Personnel costs and Repairs and Maintenance expenses, which cost pressures have been steadily increasing as the imperative to continue to ensure safe and reliable water supply from an aging system requires additional resources for maintenance and ongoing utility management. Unless otherwise noted, Hemlock has assumed an annual inflation rate of 3 percent on applicable forecast costs in the forecast F2025-F2027 rate-setting period. The assumed inflation rate is within the range of the Bank of Canada inflation control target for the medium term.<sup>2</sup>

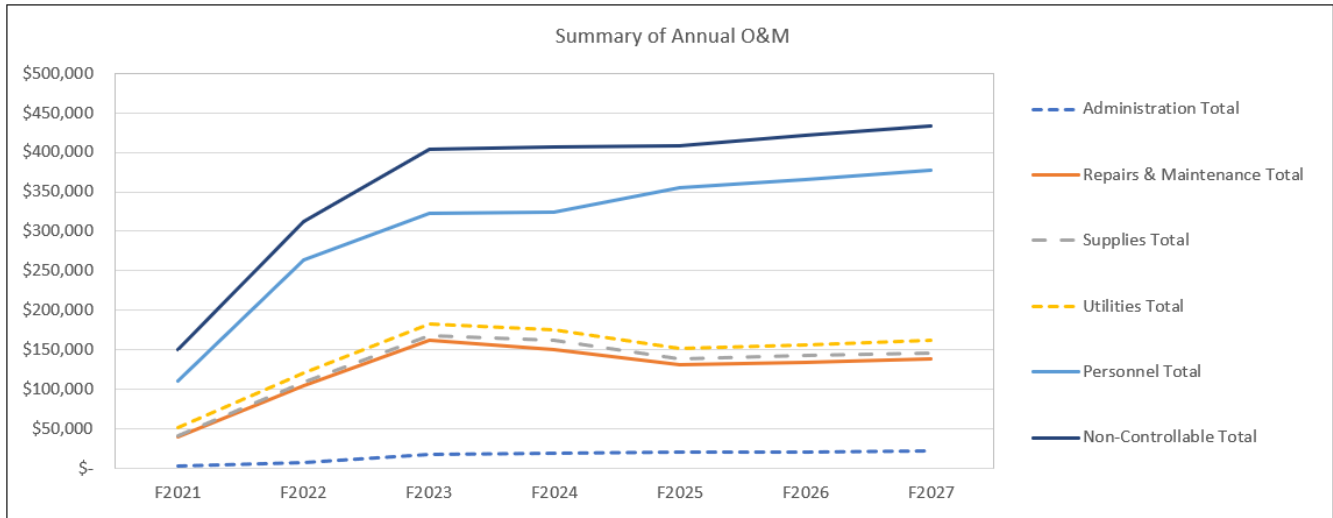
Table 1 and Figure 1 highlight the overall increase in O&M and that the foundational basis of the rates approved in F2021 requires a step change increase for rate-setting effective F2025.

**Table 1 – Summary of Operating and Maintenance Expenses**

O&M	Actual	Actual	Actual	Projected	Forecast	Forecast	Forecast
	F2021	F2022	F2023	F2024	F2025	F2026	F2027
Administration	3,503	7,282	17,518	19,500	20,085	20,688	21,308
Repairs & Maintenance	35,629	97,543	143,865	130,400	110,712	114,033	117,454
Supplies	2,710	3,511	6,464	11,615	7,309	7,528	7,754
Utilities	10,337	11,882	14,492	13,635	13,981	14,400	14,832
Personnel	57,585	144,156	139,874	149,560	202,990	209,080	215,352
Non-Controllable	40,379	48,534	81,596	82,200	53,425	55,337	57,277
<b>Total O&amp;M</b>	<b>150,143</b>	<b>312,908</b>	<b>403,809</b>	<b>406,910</b>	<b>408,502</b>	<b>421,067</b>	<b>433,979</b>

<sup>2</sup> <https://www.bankofcanada.ca/rates/indicators/key-variables/key-inflation-indicators-and-the-target-range/>

**Figure 1 - Summary of Operating and Maintenance Expenses**



### 2.1.1 Administration

Actual and forecast Administration costs are summarized in Table 2.

F2025-F2027 office and computer repairs expenses are forecast on the basis of recent trends in actual and projected costs. Hemlock has added a forecast provision for professional development expense, which will support its efforts to build the capacity of key staff. Forecast auto repairs and maintenance reflect more near-term pressures on vehicle service and maintenance.

**Table 2 – Administration Expenses**

Administration	Actual	Actual	Actual	Projected	Forecast	Forecast	Forecast
	F2021	F2022	F2023	F2024	F2025	F2026	F2027
<b>Total</b>	<b>3,503</b>	<b>7,282</b>	<b>17,518</b>	<b>19,500</b>	<b>20,085</b>	<b>20,688</b>	<b>21,308</b>
Bad Debt	157	-	-	-	-	-	-
Courier & Shipping	-	56	386	-	-	-	-
Computer Repairs & Support	695	1,264	587	1,000	1,030	1,061	1,093
Professional Development	-	-	-	500	515	530	546
Office	1,680	766	231	1,000	1,030	1,061	1,093
Travel - Gas & Mileage	420	-	-	-	-	-	-
Travel - Food & Entertainment	-	-	84	-	-	-	-
Auto	551	5,196	16,231	17,000	17,510	18,035	18,576

## 2.1.2 Repairs and Maintenance

Actual and forecast Repairs and Maintenance costs are summarized in Table 3. F2025-F2027 Forecast expenses overall follow an approximate averaging of recent trends in actual costs, but there are a few notable factors impacting the forecast in the rate-setting period as discussed below.

F2023 Actual costs for general repairs and maintenance were approximately \$98,000, comprised of \$27,000 Inventory, \$20,000 Filters, \$10,000 General Plant, \$37,000 Water leaks, \$2,000 Road, and \$3,000 Fire Hydrants. By comparison, F2024 Projected costs for general repairs and maintenance are estimated at approximately \$120,000.

Hemlock considers that it is reasonable to forecast general repairs and maintenance expenses for the F2025-F2027 test period in relation to F2023 Actual costs as incurred; that is, a forecast of \$100,000 in F2025 escalating at inflation. Hemlock has judged that this forecast may balance a direct accounting of the observed trend in escalating cost pressures on an aging system while acknowledging the uncertainty and variance year to year, as evidenced by the higher projected costs in F2024. Hemlock includes a sensitivity analysis into this cost driver in section 3.4.

Security and Fire Protection costs are difficult to forecast and are set at the upper range of recent actuals to account for the underlying uncertainty.

The cost of home installs is no longer presented as a forecast expense consistent with the standard charges as currently set out in Schedule A of the Water Tariff, which recover the expected equipment and labour costs of new home installations directly from new customers as incurred. Hemlock includes the forecast cost of new connections in the summary of overall requirements under the category of 'Other Revenue', assuming an average cost for a new connection of \$1,900 for parts and labour.

**Table 3 – Repairs and Maintenance Expenses**

Repairs and Maintenance	Actual	Actual	Actual	Projected	Forecast	Forecast	Forecast
	F2021	F2022	F2023	F2024	F2025	F2026	F2027
<b>Total</b>	<b>35,629</b>	<b>97,543</b>	<b>143,865</b>	<b>130,400</b>	<b>110,712</b>	<b>114,033</b>	<b>117,454</b>
General	24,315	70,510	98,429	120,000	100,000	103,000	106,090
Equipment Rental	-	-	268	-	-	-	-
Snow Removal	-	4,650	4,938	5,000	5,150	5,305	5,464
Home Installs	-	14,425	37,792	-	-	-	-
Maintenance	11,314	-20	-	-	-	-	-
Tools	-	4,596	2,072	2,000	2,060	2,122	2,185
Security/Fire Protection	-	3,382	366	3,400	3,502	3,607	3,715

### 2.1.3 Supplies

Actual and forecast Supplies costs are summarized in Table 4.

The total forecast cost of supplies is relatively low overall, comprised primarily of cleaning and chemicals expenses, which amounts follow an indicative average of recent trends in actual costs. Hemlock notes that the cost of chemicals may be expected to increase as water storage capacity is increased in the future. The forecast expense going forward for Paper and Miscellaneous items is included under Administration – Office, as set out above.

**Table 4 – Supplies Expenses**

Supplies	Actual	Actual	Actual	Projected	Forecast	Forecast	Forecast
	F2021	F2022	F2023	F2024	F2025	F2026	F2027
<b>Total</b>	<b>2,710</b>	<b>3,511</b>	<b>6,464</b>	<b>11,615</b>	<b>7,309</b>	<b>7,528</b>	<b>7,754</b>
Cleaning & Chemicals	2,710	3,122	6,013	11,000	7,000	7,210	7,426
Paper & Miscellaneous	-	-	-	315	-	-	-
Uniform & Linen	-	389	451	300	309	318	328

### 2.1.4 Utilities

Actual and forecast Utilities costs are summarized in Table 5.

The cost of utilities is a relatively small proportion of overall O&M and driven in part by the externally set rates of the respective utility service providers. Acknowledging this uncertainty, test period Utilities expenses are forecast on the basis of indicative recent actual costs and factoring in forecast inflation.

**Table 5 – Utilities Expenses**

Utilities	Actual	Actual	Actual	Projected	Forecast	Forecast	Forecast
	F2021	F2022	F2023	F2024	F2025	F2026	F2027
<b>Total</b>	<b>10,337</b>	<b>11,882</b>	<b>14,492</b>	<b>13,635</b>	<b>13,981</b>	<b>14,400</b>	<b>14,832</b>
Propane	509	856	2,295	935	900	927	955
Cellular	203	1,012	865	1,000	1,030	1,061	1,093
Hydro – Electric	7,997	8,278	9,703	10,000	10,300	10,609	10,927
Telephone and Communication	1,628	1,736	1,629	1,700	1,751	1,804	1,858

### 2.1.5 Personnel

Personnel costs are comprised primarily of wages, with other dependent costs varying in proportion overall. Actual and forecast Personnel costs are summarized in Table 6. Total wages cost to each utility service are estimated based on the proportional historical time allocation of employees to their key responsibilities across each utility division. Please refer to Table 7.

Hemlock employs three full time utility service professional staff across its three utility divisions, an increase from one utility service staff in F2021. In prior years Hemlock did not have the full complement of utility service personnel necessary to ensure continued safe, reliable, and cost-effective service, in particular given the complexity of operations and the emergent requirements for utility system renewal given the needs of an aging system. Operation of the new water treatment facility requires a greater staff complement. The need to ensure attraction and retention of utility service personnel is evident also in the consequential increase in actual Personnel costs over time as reported in the table below.

To elaborate further, there are two main factors impacting the forecast of Personnel expenses in the F2025-F2027 test period.

First, Hemlock needs to offer competitive salaries and benefits to attract and retain the qualified and capable utility management personnel necessary to ensure continued safe, reliable, and cost-effective service delivery. This constraint is impacted also by the relatively remote location of the Resort and community. The direct effect of this factor is a pressing need to increase Wages expense from \$120,000, as projected in F2024, to \$150,000 in F2025, increasing at inflation thereafter in F2026 and F2027. Hemlock cannot accept the risk of either frequent or persistent turnover of staff and seeks to build a strong team for effective service delivery now and into the future.

Second, administration functions at Hemlock have been constrained under the increasing complexity and time necessary to meet operational requirements. It is now necessary that a new permanent administrative position be established to ensure effective service delivery to Hemlock staff and its customers going forward.

**Table 6 – Personnel Expenses**

Personnel	Actual	Actual	Actual	Projected	Forecast	Forecast	Forecast
	F2021	F2022	F2023	F2024	F2025	F2026	F2027
<b>Total</b>	<b>57,585</b>	<b>144,156</b>	<b>139,874</b>	<b>149,560</b>	<b>202,990</b>	<b>209,080</b>	<b>215,352</b>
Utility professional wages	57,585	128,455	122,822	126,000	150,000	154,500	159,135
Employee Benefits	-	1,781	2,688	3,360	4,760	4,903	5,050
Retirement Plan	-	354	1,487	9,600	13,600	14,008	14,428
Administrative function	-	4,450	10	-	20,000	20,600	21,218
EI/WCB/ CPP/EHT	-	8,754	12,600	9,600	13,600	14,008	14,428
Training	-	362	267	1,000	1,030	1,061	1,093

**Table 7 – Proportional Allocation of Wages to Utility Service**

Actual Hours (F2024 8 months)	Water		Sewer		Electricity		Total	
	F2023	F2024	F2023	F2024	F2023	F2024	F2023	F2024
Operations	1,537	900	643	620	67	21	2,246	1,541
Repair and Maintenance	689	511	1,144	712	138	238	1,972	1,460
Distribution	596	151	187	43	207	70	990	263
Installations	287	30	73	30	93	38	453	98
Snow Removal	177	5	138	5	13	8	327	17
Administration	711	385	711	385	711	385	2,132	1,156
<b>Total</b>	<b>3,996</b>	<b>1,981</b>	<b>2,895</b>	<b>1,793</b>	<b>1,228</b>	<b>759</b>	<b>8,118</b>	<b>4,534</b>
<b>Proport</b>	<b>49%</b>	<b>44%</b>	<b>36%</b>	<b>40%</b>	<b>15%</b>	<b>17%</b>	<b>100%</b>	<b>100%</b>

Hemlock considers that the indicative proportion of effort to each utility division in F2023 and F2024 are a reasonable basis to inform the estimate of total forecast wages costs to the water utility in F2025-F2027, acknowledging too the underlying and ongoing pressures on overall service delivery as driven by an aging system, ongoing capital replacement projects and the impact of weather on system functionality.

For example, in F2023, in addition to the general influence of an aging water distribution system that requires more attention, total employee hours to the Water utility were also impacted by:

- Water plant upgrades, such as filters and sand filter replacements.
- Balancing Tank project (refer to section 2.2.2); and
- Weather events that cause an issue with the functionality of the water plant, such as the effect of heavy rain and increases in turbidity.

### 2.1.6 Non-Controllable Expenses

Actual and forecast Non-Controllable costs are summarized in Table 8.

Non-controllable costs are a category of costs driven by factors generally outside of management control. Hemlock considers that recent actual results are reasonably indicative of a stable trend for forecast purposes. Further elaboration is provided below, including the bases for allocating costs between the three utility divisions as applicable.

**Table 8 – Non-Controllable Expenses**

Non-Controllable	Actual	Actual	Actual	Projected	Forecast	Forecast	Forecast
	F2021	F2022	F2023	F2024	F2025	F2026	F2027
<b>Total</b>	<b>40,379</b>	<b>48,534</b>	<b>81,596</b>	<b>82,200</b>	<b>53,425</b>	<b>55,337</b>	<b>57,277</b>
Accounting fees	1,033	1,058	1,190	1,100	1,133	1,167	1,202
Bank charges	40	112	345	50	52	53	55
Consulting Fees	-	5,250	27,704	30,000	20,000	20,000	20,000
Credit card discounts	2,946	2,734	3,001	3,000	3,000	4,000	5,000
Insurance	7,015	10,498	7,888	7,000	7,210	7,426	7,649
License fees & Dues	1,045	582	667	700	721	743	765
Management fees	28,000	28,000	40,050	40,050	21,000	21,630	22,279
Rent Fixed	300	300	751	300	309	318	328

**Accounting fees** are the external costs of professional accountants, which costs are generally stable and reasonably forecast on the basis of historical amounts and allocations.

**Bank Charges and Credit Card discounts** are external fees, which are allocated to each utility division based an indicative percentage of revenues collected via credit cards. In prior reports to the Comptroller the 'Bank Charges' category included the interest portion of the Shareholder Loan for the Water Treatment Facility construction. As reviewed in sections 2.2.1 and 3.2.3, Hemlock seeks to recover the outstanding Shareholder Loan payments through a separate Shareholder Loan Repayment Rate.

**Consulting Fees** include the projected and forecast amounts to support the preparation of this Application and the anticipated planned efforts to advance future capital projects, rate design initiatives, and revenue requirements for approval.

**Insurance costs** relate to the policy held with Kaerus Group, which is combined with the Sasquatch Mountain resort policy. Hemlock Utility Services Ltd. pays Sasquatch Mountain Resort for its portion of the policy for property and liability, which are the total amounts reported in the table above. The cost of the Property component is allocated to each utility division based on the proportionate share of insured property value. The cost of the Liability component is allocated equally between the three utility divisions.

**License fees and Dues** include the fees for annual reports and the fees paid for Water Act Revenue payments.

**Management fees** are the actual and forecast wages costs of 1) the internal accounting team, which is responsible for bookkeeping, accounts receivable and cash management, and 2) the executive team, which holds responsibility for oversight and management of the three utility divisions.

The allowance for internal accounting costs within the category of Management fees under current rate approvals is \$7000. The total allowance for executive team costs under the Order 2555 Decision rate approvals is \$21,000. The Balancing Tank Upgrade and the Well Drilling Project put upward pressure on F2023 and F2024 management on management time, and for head office staff to be involved.

While the overall cost pressures to manage current and future water system capital programs are expected to persist, Hemlock forecasts a reduction in Management fees for the F2025-F2027 rate-setting period based on current resources and allocations and in view of the proposed new Administrative role, as reviewed in section 2.1.5. The lower forecast overall as compared to recent actual costs reflects an efficiency gained through a general streamlining between accounting processes and management time.

## 2.2 Capital Projects and Funding

### 2.2.1 Water Treatment Infrastructure Upgrade Project

Hemlock was directed by the Fraser Health Authority (FHA) in 2013 to undertake water treatment plant upgrades to comply with a prior water contravention order (dating to 2008). In 2014 the FHA issued a construction permit authorizing the Utility to upgrade its water treatment facility to include chlorination, filtration, UV disinfection, storage tanks, pumps, and a new treatment building. Hemlock completed installation of the new water treatment facility in 2015. The final cost of this project was \$862,000, which was funded by a shareholder loan (**Shareholder Loan**).

In its Order 2555 Decision dated January 27, 2020, the Comptroller accepted that the water treatment upgrades were a necessary expenditure and the final cost of \$862,000 was approved as an authorized expenditure. The Comptroller directed that the final cost of the project be used to offset a \$140,000 deficiency in the RRF with the remaining balance of \$722,000 to be repaid through the Shareholder Loan over twelve years at an interest rate of 5 percent.

The Shareholder Loan is currently being recovered through the existing customer flat rates. The projected balance in Principal at the end of F2024 is approximately \$491,000 and the remaining amortization period is 8 years.

As reviewed in section 3.2.3, Hemlock proposes a separate Shareholder Loan Repayment Rate effective May 1, 2024, to recover the remaining balance of the Shareholder Loan over a 15 year period (i.e., for the period F2025 through F2039) at a continuing rate of 5 percent.

Consistent with this proposed rate, the recovery of the Shareholder Loan going forward is now reported as a separate line item in the summary of revenue requirements in section 2.5.

### 2.2.2 Balancing Tank Project

Hemlock completed a project in F2023-F2024 to integrate an above-ground balancing tank with the new treatment facility to allow for the additional storage of treated water. The cost of this project was approximately \$306,000. Hemlock did not seek Comptroller authorization for these expenditures and the Utility is not seeking recovery of these costs in customer rates. Hemlock has included the value of this system upgrade in the projection of depreciation values reported below in section 2.2.5. An indicative estimate of the avoided rate impact to customers is presented in section 3.4.1.



### 2.2.3 Well Drilling Project

By letter dated September 28, 2023, the Comptroller authorized Hemlock to proceed with a Well Drilling Project to be funded through the RRF under an initial release in F2024 of \$107,427.85. This amount has been applied in F2024 and reflected accordingly in the reported balance in the RRF (please refer to section 2.4).

As reviewed prior with the Comptroller in September 2023, the Well Drilling Project is a current initiative targeted to mitigating the ongoing risk of water supply shortages. A budget for the project is provided below in Table 9.

**Table 9 – Well Drilling Project Budget**

Well Drilling Project	Remaining Budget \$	Actual \$
Well #1 Drilling		54,101
Well #2 Drilling		58,687
Well #1 Volume Test & Pump		38,812
Land Survey		1,271
Water Treatment Review		8,489
Hydrologist Engineering	9,796	23,361
Well #2 Decommission	9,000	
Structural Engineering	21,930	
Water Treatment Engineering	10,000	
Construction - Well Site	20,000	
Construction - Water Storage	80,000	
Construction - Pipeline	30,000	
Construction - Water Plant Tie-in	40,000	
Forecast Total		396,958

The Well Drilling Project is forecast to be completed in F2025. Through this Application, Hemlock requests approval to recover the net forecast cost of \$289,530 ( $=\$396,958 - \$107,428$ ) as an authorized release on a forecast basis. This request for approval is reflected in the actual and forecast RRF balance at the proposed rates reviewed in section 2.4, Table 12. If deemed necessary, the net balance in the RRF could be trued up or down in the next rate-setting period effective F2028, based on a reconciliation of the authorized release with the actual cost of the project when known.

In an accompanying communication into its authorization of the Well Drilling Project and initial funding, the office of the Comptroller noted that approval of the next request for RRF release for the Well Drilling Project will necessitate submission and acceptance of a comprehensive financing proposal to address the overall cost of the project, the depletion of the RRF and the need for increased contributions to the RRF. Hemlock considers that this matter is addressed through this Application, in the context of overall revenue requirements and the intent to moderate bill impacts over the test period to a reasonable extent, as reviewed in detail in section 3.0.

## 2.2.4 Water Meter Project – Proposed

Hemlock requests approval of a Water Meter Project, to be implemented for the benefit of all customers of the Utility. This project will support long-term water management and a future rate design strategy to promote efficient water management, conservation, and cost-effective service delivery.

### **Project Need**

The installation of water meters will provide for accurate measurement of water consumption, which will enable both Hemlock and its customers to monitor usage data and patterns and to build awareness of individual customer consumption.

Water meters encourage responsible water use, and complementary rate designs may then support overall water conservation efforts and provide for more fair and equitable billing and practices. With measurements of water usage by customer and among groups of customers of similar type, Hemlock can review the drivers and allocation of its cost of service between and among customers and consider rate structures that may improve the fairness of the underlying cost of service allocation and that may also include a usage rate to promote fairness and transparency in billing of applicable costs. A usage rate will support efficient water consumption as customers become more conscious of their usage patterns and costs and adjust their behaviors accordingly. The benefit will extend to Hemlock as well, as improved accuracy in billing will ensure fair compensation for the services provided, promoting financial sustainability and stability.

The data made available through water metering will also help identify potential leaks, which will support timely repairs and the prevention of unnecessary water wastage. With meters in place Hemlock will be able to anticipate future demands and plan infrastructure upgrades accordingly. The approach will allow for improved resource planning for water distribution systems, preventing overuse of resources and ensuring reliable water supply to meet our customers' needs. The benefits of water meters may thus extend also to reducing stress on local ecosystems.

Following implementation of the Water Meter Project in F2025, Hemlock's intent is to collect customer usage data through F2026, which will inform the allocation of costs between fixed and variable cost drivers and customer type, and ultimate development of a usage rate to be brought forward for approval in a future rates application.

### **Scope, Cost and Timing**

The scope of the project is straightforward, involving the purchase and installation of an estimated 164 meters to serve all buildings at the point of connection. The number of meters is less than the total number of accounts as multiple accounts are served through a single building connection, such as the strata-controlled condominium customers.

The cost per meter is estimated at \$300 for hardware plus \$1,100 for installation, including labour, parts, commissioning and contingency. The total cost is thus estimated at \$1,400 per meter and approximately \$230,000 for the project overall.

Hemlock anticipates that all meters can be procured and installed by the end of F2025, and Hemlock thus seeks authorization of \$230,000 in expenditures to implement the project in F2025.

### **Project Funding and Cost Recovery**

Upon approval of the Water Meter Project, Hemlock would seek a bank loan to fund the total project cost. As reviewed further in section 3.2.4, Hemlock contemplates that a separate levelized rate be structured to recover the cost of the project from existing customers only on a \$/meter basis over 10 years, effective F2026.

This contemplated rate structure would temper the customer rate impact as compared to the significant impact that would be imposed if recovery was targeted on a more accelerated basis through the RRF, for example. The benefit of this approach would include ensuring fair cost recovery from all customers that immediately and directly benefit from the project. To support project implementation, Hemlock would seek competitive financing terms under a timeline equivalent to the period contemplated for levelized rate recovery. Hemlock proposes to finalize the applicable structure and rate in a compliance filing to follow project completion and in advance of the expected effective date of a Meter Project Rate, May 1, 2025.

It is important to emphasize that the Water Meter Project will be implemented for current existing customer buildings and planned, committed new connections in the F2025-F2027 test period. Project costs will be recovered only from those customers, on a \$/meter basis. As part of its next rate application, Hemlock would propose that effective F2028, the standard charge for connections of new customers would include the cost of a new meter; that is, to be individually funded by each new customer connection going forward at that time. Periodic meter replacements could be funded through the RRF.

### **2.2.5 Water Distribution System Replacement Project – Planned**

The Water Distribution System is over 50 years old. Water mains and fittings have been failing and the number and frequency of failings are expected to increase. While maintenance and repair is ongoing as necessary, the system is near end of life and the priority need to replace the distribution system is becoming elevated.

The estimated cost to replace the old distribution system could be expected to be in the range of \$3,000,000, which Hemlock expects could be completed in phases over a 10 to 15 year period.

Hemlock is continuing to assess the scope, cost and implementation timing of a Water Distribution System Replacement Project in support of a future application. Hemlock will update the Comptroller at a later date as to the expected timing of such an application.

## **2.3 Depreciation Study**

The purpose of a Depreciation Study is to support a determination of the sufficient collection of funds to a Replacement Reserve Fund (**RRF**) for replacement of existing water system components when required. This

purpose is articulated in the guidance as set out in the Comptroller’s Financial Guidelines for CPCN Applications at Section 6.3 - Replacement Reserve Fund<sup>3</sup>:

The RRF provides funds (depreciation) collected from customers and/or interest earnings from Revenue Deficit/ Rent Charge Reserve Funds to pay for replacement of water system components when required. Interest earned on the RRF is to be retained in the RRF. Funds may only be released by authority of the Comptroller, upon evidence of replacement and review by the Utility Regulation staff. The RRF monies are to be Utility property integral with the water system and, consequently, are to be included as such in the event of any change in ownership of the Utility property requiring approval of the Comptroller under Section 52 of the Utilities Commission Act. Utilities are expected to deposit monies into the RRF as ordered by the Comptroller as rates are collected and/or interest on Revenue Deficit/ Rent Charge Reserve Funds are earned. Total annual deposits should be equal to standard depreciation rates for the water system components as shown on the attached depreciation schedule (generally around 2.5 to 3% of the total capital cost).

In its Order 2555 Decision, the Comptroller directed that Hemlock submit a complete Depreciation Study by April 30, 2020. Hemlock filed the Depreciation Study on April 13, 2020. Please refer to the study at Appendix 3 to this Application.

A summary of the Depreciation Study results is presented in the following table. Values are escalated to current period amounts by a factor of 1.16, based on the difference between the applicable consumer price index (CPI) in February 2024 compared to March 2020<sup>4</sup>.

**Table 10 – Depreciation - Current and Projected Values**

	<b>F2020 (March 2020)</b>	<b>F2024 (February 2024)</b>	<b>F2025</b>	<b>F2026</b>	<b>F2027</b>
CPI (Table: 18-10-0004-13)	136.6	158.8			
Ratio		1.16			
Annual Inflation			3%	3%	3%
<b>Plant Value<sup>5</sup></b>	<b>\$4,823,866</b>	<b>\$5,607,833</b>	<b>\$6,082,067</b>	<b>\$6,264,530</b>	<b>\$6,452,465</b>
Depreciation	\$103,459	\$120,273	\$130,444	\$134,357	\$138,388
Composite Depreciation Rate	<b>2.1%</b>				
Engineering Cost (10%)	\$10,346	\$12,027	\$13,044	\$13,436	\$13,839
Contingency (15%)	\$17,068	\$18,041	\$19,567	\$20,154	\$20,758
<b>Total Annual Cost Projection</b>	<b>\$130,873</b>	<b>\$150,341</b>	<b>\$163,055</b>	<b>\$167,947</b>	<b>\$172,985</b>

<sup>3</sup> [https://www2.gov.bc.ca/assets/gov/environment/air-land-water/water/water-licensing-and-rights/water-utilities/cpcn\\_appen1\\_cpcn\\_financial\\_guidelines.pdf](https://www2.gov.bc.ca/assets/gov/environment/air-land-water/water/water-licensing-and-rights/water-utilities/cpcn_appen1_cpcn_financial_guidelines.pdf)

<sup>4</sup> Refer to CPI Table: 18-10-0004-13 Canada All Items

<sup>5</sup> Includes the addition in F2025 of \$306,000 to reflect the cost of the Balancing Tank project.

As reviewed in section 2.4 below, the RRF currently collects customer contributions of approximately \$65,000 per year. The projected balance in the RRF at the end of F2025 under current rates is forecast to be nil under the requested approval to fund the remaining budget of the Well Drilling Project through the RRF.

Based on the results of the Depreciation Study, if the Hemlock water system were at the end of life in F2025, the RRF should have approximately \$6 million to fund the implicit replacement value of the system. While it is likely that the actual cost of system replacement would differ and may be below the figures calculated from the Depreciation Study, for example due to changes in inflation, technology, and applicable water quality standards, the assessment in the table above is broadly indicative of a significant current underfunding in the RRF.

## 2.4 Replacement Reserve Fund

The RRF provides funds collected from customers to pay for replacement of water system components when required. The RRF is held by Hemlock for the benefit of its water utility customers.

In its Order 2555 Decision the Comptroller set RRF contributions at 15 percent of total customer rates for F2020 with an increase to 20 percent for F2021. The Comptroller considered these contribution levels to be a prudent phased-in approach that would strike a balance between collecting adequate funds to pay for water system replacements as needed and the consequent impact on customer rates. RRF contributions have remained at the level of 20 percent of overall rates in the intervening years to the date of this Application.

The following table presents a summary of the actual and forecast balance in the RRF under current rates and assuming continued authorization to fund the Well Drilling Project through the RRF as proposed in this Application.

**Table 11 – Actual and Forecast RRF Balance at Current Rates**

Replacement Reserve Fund Current Rates	Actual	Actual	Actual	Projected	Forecast	Forecast	Forecast
	F2021	F2022	F2023	F2024	F2025	F2026	F2027
Beginning Balance	\$25,090	\$83,552	\$142,911	\$203,800	\$159,238	-\$3,105	\$(568)
Recorded Interest	\$126	\$113	\$661				
<b>RRF Contributions</b>	<b>\$58,337</b>	<b>\$59,246</b>	<b>\$60,229</b>	<b>\$62,865</b>	<b>\$64,394</b>	<b>\$65,330</b>	<b>\$66,266</b>
Well Drilling Project Projected Release <sup>6</sup>				\$107,428	\$223,632	\$65,898	\$-
<b>Ending balance</b>	<b>\$83,552</b>	<b>\$142,911</b>	<b>\$203,800</b>	<b>\$159,238</b>	<b>\$-</b>	<b>\$(568)</b>	<b>\$65,698</b>

By contrast and as reviewed in section 2.3, a minimum current funding target based on annual forecast depreciation would be approximately \$160,000 per year escalating to approximately \$170,000 per year. Such a target would necessitate consideration of the impact of a potentially significant RRF rate increase on balance with an assessment of customer impacts overall (acknowledging the expected rate increases required to

<sup>6</sup> The total forecast cost of the Well Drilling Project is \$396,958.

recover the forecast O&M costs, Shareholder Loan, and Water Meter Project costs in the F2025-F2027 rate-setting period.

For the reasons elaborated upon in sections 3.2 and 3.4, Hemlock proposes to disaggregate the calculation and reporting of the customer rate for RRF contributions; that is, separate from and independent of the setting of customer rates targeted to recovery of the cost of service for utility operations. On the basis of the review of customer rate impacts set out in section 3.4, Hemlock proposes a moderate increase to the level of RRF contributions of approximately 5 percent per year.

**Table 12 – Actual and Forecast RRF Balance at Proposed Rates**

Replacement Reserve Fund Proposed Rates	Actual	Actual	Actual	Projected	Forecast	Forecast	Forecast
	F2021	F2022	F2023	F2024	F2025	F2026	F2027
Beginning Balance	\$25,090	\$83,552	\$142,911	\$203,800	\$159,238	\$-	\$9,556
Recorded Interest	\$126	\$113	\$661				
<b>RRF Contributions – Proposed Rates</b>	<b>\$58,337</b>	<b>\$59,246</b>	<b>\$60,229</b>	<b>\$62,865</b>	<b>\$67,680</b>	<b>\$72,168</b>	<b>\$76,937</b>
Well Drilling Project Projected Release <sup>7</sup>				\$107,428	\$226,918	\$62,612	\$-
<b>Ending balance</b>	<b>\$83,552</b>	<b>\$142,911</b>	<b>\$203,800</b>	<b>\$159,238</b>	<b>\$-</b>	<b>\$9,556</b>	<b>\$86,493</b>

Under the proposed increase in RRF contributions of 5% per year, the F2027 RRF balance is forecast to be approximately \$86,500, which is approximately 17 percent of the forecast F2027 balance that would arise under targeted recovery of the projected annual depreciation value each year over the F2025-F2027 test period. As reported in section 3.4, to achieve such a targeted result customer RRF contributions would need to increase by 73% each year for 3 years, amounting to an incremental total customer bill impact of ~15 percent per year. In consideration of Well Drilling project funding requirements and given the forecast rate increase for utility operations, Hemlock considers that lower targeted RRF contributions at this time are reasonable and appropriate.

## 2.5 Summary of Revenue Requirements

Table 13 below presents the Actual, Projected and Forecast revenue requirements for F2021 through F2027. Forecast revenues in the F2025-F2027 test period are inclusive of proposed rate changes reviewed in section 3.3.

<sup>7</sup> The total forecast cost of the Well Drilling Project is \$396,958.

**Table 13 – Summary of Revenue Requirements**

Revenue Requirements	Actual	Actual	Actual	Projected	Forecast	Forecast	Forecast
	F2021	F2022	F2023	F2024	F2025	F2026	F2027
<b>O&amp;M</b>	<b>\$150,143</b>	<b>\$312,908</b>	<b>\$403,809</b>	<b>\$406,910</b>	<b>\$408,502</b>	<b>\$421,067</b>	<b>\$433,979</b>
Income Tax provision	\$-	\$-	\$-	\$-	\$-	\$-	\$-
Revenue Requirements w/o OM	\$150,143	\$312,908	\$403,809	\$406,910	\$408,502	\$421,067	\$433,979
Operating Margin (OM)	\$11,561	\$24,094	\$31,093	\$31,332	\$20,425	\$21,053	\$21,699
<b>Total Revenue Requirements w/ OM</b>	<b>\$161,704</b>	<b>\$337,002</b>	<b>\$434,902</b>	<b>\$438,242</b>	<b>\$428,927</b>	<b>\$442,120</b>	<b>\$455,677</b>
less Other Revenue	\$(1,100)	\$-	\$(13,125)	\$(1,000)	\$-	\$-	\$-
<b>Net Revenue Requirements</b>	<b>\$160,604</b>	<b>\$337,002</b>	<b>\$421,777</b>	<b>\$437,242</b>	<b>\$428,927</b>	<b>\$442,120</b>	<b>\$455,677</b>
plus RRF Contributions	\$58,337	\$59,246	\$60,229	\$62,865	\$67,680	\$72,168	\$76,937
plus Shareholder Loan Payments	\$80,133	\$80,133	\$80,133	\$80,133	\$46,412	\$46,412	\$46,412
plus Water Meter Project Cost Recovery	\$-	\$-	\$-	\$-	\$-	\$33,299	\$33,299
plus Other Revenue & New Connections	\$1,100	\$-	\$13,125	\$1,000	\$9,500	\$9,500	\$9,500
<b>Total Gross Revenue Requirements</b>	<b>\$300,173</b>	<b>\$476,380</b>	<b>\$575,264</b>	<b>\$581,240</b>	<b>\$552,518</b>	<b>\$603,498</b>	<b>\$621,825</b>
<b>Revenue (excluding RRF-Loan-Meter-Other)</b>	<b>\$150,996</b>	<b>\$156,878</b>	<b>\$159,821</b>	<b>\$251,462</b>	<b>\$331,195</b>	<b>\$432,044</b>	<b>\$563,485</b>
plus Shareholder Loan Payments	\$80,133	\$80,133	\$80,133	\$80,133	\$46,412	\$46,412	\$46,412
plus Water Meter Project Cost Recovery	\$-	\$-	\$-	\$-	\$-	\$33,299	\$33,299
plus Other Revenue & New Connections	\$1,100	\$-	\$13,125	\$1,000	\$9,500	\$9,500	\$9,500
plus RRF Contributions	\$58,337	\$59,246	\$60,229	\$62,865	\$67,680	\$72,168	\$76,937
<b>Total Revenue</b>	<b>\$290,565</b>	<b>\$296,256</b>	<b>\$313,307</b>	<b>\$395,460</b>	<b>\$454,787</b>	<b>\$593,422</b>	<b>\$729,633</b>
less Total O&M Expenses	\$(150,143)	\$(312,908)	\$(403,809)	\$(406,910)	\$(408,502)	\$(421,067)	\$(433,979)
less Shareholder Loan Payments	\$(80,133)	\$(80,133)	\$(80,133)	\$(80,133)	\$(46,412)	\$(46,412)	\$(46,412)
less Water Meter Project Cost Recovery	\$-	\$-	\$-	\$-	\$-	\$(33,299)	\$(33,299)
less RRF Contributions	\$(58,337)	\$(59,246)	\$(60,229)	\$(62,865)	\$(67,680)	\$(72,168)	\$(76,937)
less Other Revenue & New Connections	\$(1,100)	\$-	\$(13,125)	\$(1,000)	\$(9,500)	\$(9,500)	\$(9,500)
less Provision for Income Taxes	\$-	\$-	\$-	\$-	\$-	\$-	\$-
<b>Net Income (Loss)</b>	<b>\$853</b>	<b>\$(156,030)</b>	<b>\$(243,988)</b>	<b>\$(155,448)</b>	<b>\$(77,307)</b>	<b>\$10,977</b>	<b>\$129,507</b>
<b>Cumulative Net Income - Rate-Setting F2025-F2027</b>					<b>\$(77,307)</b>	<b>\$(66,329)</b>	<b>\$63,177</b>
Operating and Maintenance Expenses	\$150,143	\$312,908	\$403,809	\$406,910	\$408,502	\$421,067	\$433,979
Operating Margin %	8%	8%	8%	8%	5%	5%	5%
Operating Margin \$	\$11,561	\$24,094	\$31,093	\$31,332	\$20,425	\$21,053	\$21,699
<b>Cumulative Allowed Operating Margin over the Forecast Test-Period</b>					<b>\$20,425</b>	<b>\$41,478</b>	<b>\$63,177</b>
Cumulative Net Income F2021-F2027	\$853	\$(155,177)	\$(399,165)	\$(554,613)	\$(631,920)	\$(620,943)	\$(491,436)
Income Tax Rate					27%	27%	27%
<b>Income Tax Provision</b>					<b>\$-</b>	<b>\$-</b>	<b>\$-</b>

### 2.5.1 Operating Margin

Operating margin (net cash flow income) is calculated as a percentage of total operating expenses. In its Order 2555 Decision the Comptroller approved an operating margin for Hemlock of 7.7 percent of total approved expenses in 2021.

Hemlock observes that there are other regulated water utilities under the jurisdiction of the Comptroller that have more recently been approved an operating margin of 9.5 percent, which margin may align directionally with the current allowed return on equity for small thermal energy system utilities regulated by the BC Utilities Commission.

Hemlock considers that operating margin ought to be equitably and consistently applied to its water utility, which would be proportionate with the business and financial risk of small-regulated utilities, generally, and the allowed margins of likely comparable water utilities in BC.

As summarized in section 3.4, Hemlock reviewed the sensitivity of customer rate impacts to an assumed allowed operating margin of 10% each year, an estimate which may be commensurate with more recent evidence into the margins and returns applicable to small water and thermal energy utilities.

Further to the discussion in section 3.4, on balance and in consideration of a targeted mitigation of overall customer rate impacts, Hemlock has assumed an annual allowed operating margin of 5% as reasonable for the F2025-F2027 test period.

### 2.5.2 Income Tax Provision

Hemlock has not included an Income Tax provision given accumulated losses.

### 2.5.3 Revenue Requirements from Operations

The calculation of Total Gross Revenue Requirements includes: 1) projected and forecast costs for Operations and Maintenance, 2) proposed RRF Contributions, 3) recovery of the Shareholder Loan under a separate levelized rate as proposed, 4) indicative recovery of Water Meter Project costs under a separate levelized rate as proposed, and 5) forecast Other Revenue. For the period F2025-F2027, Other Revenue is a forecast of the flow-through of the standard charges for new connections. As reviewed in section 2.1.2, the cost of new connections will be directly recovered and is excluded from projected O&M expenses and rate-setting. An estimate of the cost of new connections is however included in projected gross revenue requirements assuming an average cost for a new connection of \$1,900 for parts and labour.

The calculation of Net Revenue Requirements represents the cost of service from Utility service operations and thereby represents the amount required for recovery from customers in rates for service after excluding the recovery of the gross revenue requirement additions.

On the basis of revenue requirements as set out above, Hemlock is requesting approval of a rate increase applicable to utility service operations each year over the F2025-F2027 test period. A summary of projected utility service revenues at current rates is provided in Table 14.



**Table 14 – Utility Service Revenue Deficiency at Current Rates**

	<b>F2025</b>	<b>F2026</b>	<b>F2027</b>
Utility Service Revenue - Current Rates	257,577	261,321	265,065
Net Utility Service Revenue Requirement	428,927	442,120	455,677
Annual Revenue Deficiency (Surplus)	171,350	180,799	190,613
Indicative Annual Cost Recovery Impact	67%	6%	5%

Hemlock proposes to levelize the required rate increase over three years from F2025 (effective May 1, 2024) through F2027 (to April 30, 2027), which will smooth the required annual rate increases and moderate an otherwise significant rate impact in F2025, as shown in the table below.

**Table 15 – Annual versus Proposed Levelized Utility Service (Operations) Rate Increase F2025-F2027**

<b>Utility Service Operations Rate Increase F2025 – F2027</b>	<b>Forecast</b>	<b>Forecast</b>	<b>Forecast</b>
	<b>F2024</b>	<b>F2025</b>	<b>F2026</b>
Annual	67%	6%	5%
Levelized	29%	29%	29%

The levelized rate increase is determined as the annual rate increase each year that yields a Cumulative Net Income over the test period (at the end of F2027) that is equivalent to the Cumulative Allowed Operating Margin over the test period (at the end of F2027). That is, the levelized annual rate increase yields equivalent results for Cumulative Net Income over the three years as would be projected under the annual cost of service rate changes that would otherwise vary each year. Hemlock thus proposes a rate increase to utility service operations of 29% each year for F2025 through F2027.

A review of the service rates proposed on this basis is presented in section 3.3. The context and factors underpinning the rates as proposed, including the separate rates for recovery of the Total Gross Revenue Requirements, is reviewed through the sensitivity analyses in section 3.4.

### 3 RATES

This section reviews the proposed rate structures and rates for the F2025-F2027 test period. The section is organized as follows:

- Section 3.1 presents a reporting of actual and forecast customer count, which are the billing determinants for setting fixed rates per premise;
- Section 3.2 reviews the proposed restructuring of rates for the targeted recovery separately of the Utility cost of service, customer contributions to the RRF, and ongoing recovery of the Shareholder Loan. Section 3.2 includes a review of the contemplated design of a rate structure to recover the costs of the Water Meter Project set forth for approval in this Application;
- Section 3.3 sets out the proposed rates. Section 3.3 include an indicative rate for recovery of the Water Meter Project to fully inform projected rate impacts in F2026 and F2027; and
- Section 3.4 reviews projected residential customer bill impacts and the considerations that helped shape the approach to moderating projected customer rate impacts over the F2025-F2027 test-period.

#### 3.1 Customer Count

Actual and forecast customer count is set out in Table 16.

Hemlock forecasts the addition of 5 new residential customers each year over the F2025-F2027, which is based on communications with prospective customers and on service deposits received. The capacity of the bunkhouse staff accommodation is forecast to increase beginning in F2025, from 85 to 104 beds.

**Table 16 – Customer Count**

Customers	Actual	Actual	Actual	Projected	Forecast	Forecast	Forecast
	F2021	F2022	F2023	F2024	F2025	F2026	F2027
Residential 3	238	240	241	246	251	256	261
Residential 4	0	1	2	8	8	8	8
Residential 5	3	3	3	4	4	4	4
Residential 6	0	0	1	1	1	1	1
Bunkhouse beds	85	85	85	85	104	104	104
Commercial – Large	1	1	1	1	1	1	1
Commercial - Low Usage	4	4	4	4	4	4	4
Commercial - Condo Common	2	2	2	2	2	2	2

## 3.2 Rate Structures

### 3.2.1 Current Fixed Rate Structure and Rates

Hemlock’s current rate structure is a fixed flat rate to residential and commercial customers, levied on a quarterly basis. From the rates collected, a percentage contribution per customer is allocated to the RRF. That is, customer contributions to the RRF are embedded in the rates that are approved and in effect.

The residential fixed flat rate as approved is applicable to premises with 3 bedrooms. For residential premises greater than three bedrooms, the applicable rate is determined as the number of bedrooms in the building times 1/3 of the approved Residential rate. The rate for Bunkhouses is calculated based on the number of beds in the complex times 1/6 of the Residential flat rate.

The current rates in effect in F2024 are reported in Table 17. These rates are as approved since January 2020, per Order 2555.

**Table 17 – Current Rates in Effect F2024**

Customers	Unit	Fixed Rate
<b>Residential 3 (Approved)</b>	<b>\$/premise/quarter</b>	<b>\$234.00</b>
Residential 4 (Calculated)	\$/premise/quarter	\$312.00
Residential 5 (Calculated)	\$/premise/quarter	\$390.00
Residential 6 (Calculated)	\$/premise/quarter	\$468.00
Bunkhouse beds (Calculated)	\$/bed/quarter	\$39.00
<b>Commercial – Large (Approved)</b>	<b>\$/premise/quarter</b>	<b>\$11,642.80</b>
<b>Commercial - Low Usage (Approved)</b>	<b>\$/premise/quarter</b>	<b>\$256.00</b>
<b>Commercial - Condo Common (Approved)</b>	<b>\$/premise/quarter</b>	<b>\$256.00</b>
<b>RRF</b>	<b>% of recovery</b>	<b>20%</b>

### 3.2.2 Proposed Fixed Rate Structure

Effective F2025, Hemlock proposes to disaggregate the fixed flat rate for Residential and Commercial customers into the following separate rates:

- 1) **Utility Services Rate** – set to recover the cost of service for Utility Operations (that is, recovery of the annual net revenue requirements); and
- 2) **RRF Contribution Rate** – set to recover a targeted balance in the RRF over a given period.

For the purpose of rate-setting, recovery of the cost of service as between Operations and RRF contributions is proportionately allocated to residential and commercial customers based on the existing cost of service allocation factors embedded in the current rates for such customers.

This proposed rate structure will improve the alignment of cost recovery with cost causation in the setting of rates, and will thereby promote rate stability, recovery of the revenue requirements, and planning for an appropriate balance in the RRF over a long-term planning horizon.

Separating out the fixed rates into their respective cost of service components is also practical, administratively simple to implement, and will promote customer understanding and acceptance of the key drivers of the overall Utility cost of service and proposed rate changes over time.

As such, and notably in this Application, the proposed rate structure will allow consideration of all component rate changes to offer a comprehensive view of the rate impact trade-offs across all drivers of overall gross revenue requirements. Hemlock considers that the attributes of this approach are evident in the assessment of rate impacts presented in section 3.4.

### 3.2.3 Shareholder Loan Repayment Rate

Further to the discussion in section 2.2.1, Hemlock proposes a separate Shareholder Loan Repayment Rate, effective May 1, 2024, to recover the remaining balance of the Shareholder Loan (i.e. beginning at the start of F2025). This rate mechanism will improve rate stability and recovery of the revenue requirements overall by ensuring transparency of cost recovery across all service components. The Shareholder Loan Repayment Rate will delineate a clear understanding of this component revenue requirement cost driver and overall rate impact determinations, while assuring targeted recovery of the loan as approved.

Hemlock proposes a levelized rate under an equivalent 5 percent cost of capital and to extend recovery of the Shareholder Loan over 15 years in total to moderate overall customer rate impacts. For the purpose of rate-setting, recovery of the Shareholder Loan is proportionately allocated to residential and commercial customers based on the existing cost of service allocation factors embedded in the current rates for such customers. The recovery of the Shareholder Loan is thus reported as a separate line item in the summary of revenue requirements in section 2.5.

### 3.2.4 Meter Project Rate

Further to the discussion in section 2.2.4, Hemlock requests approval of a Water Meter Project, and for the cost of this project to be recovered through a separate levelized **Meter Project Rate**, as applicable to existing customers to support project implementation. Effective F2028, the standard charge for new customer connections will include the cost of a new meter. Future meter replacements are proposed to be funded through authorized withdrawals from the RRF when required.

Hemlock anticipates that a levelized rate will be structured to recover the cost of the project from existing customers on a \$/meter basis over 10 years. As discussed in section 2.2.4, Hemlock proposes to finalize the applicable Meter Project Rate in a compliance filing at the end of F2025, to follow project completion when total project costs, including financing costs, are known. That is, the timing of the compliance filing would be in advance of the expected effective date of the Meter Project Rate on May 1, 2025.

As reviewed in sections 3.3 and 3.4, Hemlock has estimated a Meter Project Rate for indicative purposes to highlight overall projected customer rate impacts over the F2025-F2027 period. The rate assumes project financing of 8% and levelized recovery over 10 years.

### 3.3 Proposed Rates

Proposed rates are set to recover overall forecast revenue requirements under forecast billing determinants. The sensitivity of projected customer rate impacts are a function of the structure of the underlying rate designs and of the considerations that may be applied to moderate the level of the overall forecast cost of service over the test period. These matters are reviewed in section 3.4.

#### 3.3.1 Proposed Rates

As reviewed in section 2.5.3, Hemlock proposes to smooth the recovery of the forecast revenue deficiency at a levelized increase in the Utility Service Rate of 29% each year over the F2025-F2027 period.

Proposed rates are set out in Table 18 and a summary of the projected annual cost and impacts to Residential customers follows in Table 19. For comparison purposes, rates are expressed as \$/quarter. As proposed, Hemlock seeks to implement monthly billing effective May 1, 2025, and will thus express approved rates on a \$/month basis going forward. Refer to Appendices 2-A and 2-B.

**Table 18 – Proposed Rates F2025-F2027**

<b>Proposed Rates</b>	<b>Current</b>	<b>Proposed</b>	<b>Proposed</b>	<b>Proposed</b>
<b>\$/premise/quarter</b>	<b>F2024</b>	<b>F2025</b>	<b>F2026</b>	<b>F2027</b>
<b>Utility Service Rate</b>				
Residential 3	187	241	309	398
Commercial - Day Lodge	9,314	11,976	15,399	19,801
Commercial - Low Usage	205	263	339	435
Commercial - Condo Common	205	263	339	435
<b>RRF Contribution Rate</b>				
Residential 3	47	49	52	54
Commercial - Day Lodge	2,329	2,447	2,572	2,704
Commercial - Low Usage	51	54	57	59
Commercial - Condo Common	51	54	57	59
<b>For comparison: Rate as % Service + RRF</b>	20%	17%	14%	12%
<b>Shareholder Loan Repayment Rate</b>				
Residential 3	Recovery included in total service rate	34	33	33
Commercial - Day Lodge		1,678	1,654	1,631
Commercial - Low Usage		37	36	36
Commercial - Condo Common		37	36	36
<b>Meter Project Rate (\$/meter) - Indicative</b>	n/a	n/a	51	51

**Table 19 – Annual Bill Impacts – Residential 3**

Proposed Rates Residential Customer – Annual Bill Impacts		Current	Proposed	Proposed	Proposed
		F2024	F2025	F2026	F2027
<b>Utility Service Rate</b>	Annual \$	749	963	1,238	1,592
	Change \$/year		214	275	354
	Change %/year		29%	29%	29%
<b>RRF Contribution Rate</b>	Annual \$	187	197	207	217
	Change \$/year		10	10	10
	Change %/year		5%	5%	5%
<b>Shareholder Loan Rate</b>	Annual \$	Recovery included in total service rate	135	133	131
	Change \$/year		135	-\$2	-\$2
	Change %/year		14%	-	-
<b>Total (w/o Meter Project)</b>	<b>Annual \$</b>	<b>936</b>	<b>1,294</b>	<b>1,578</b>	<b>1,940</b>
	Change \$/year		358	283	363
	<b>Change %/year</b>		<b>38%</b>	<b>22%</b>	<b>22%</b>
Meter Project Rate	Annual \$	n/a	n/a	203	203
	Change \$			203	-
	Change % F2026 bill			13%	-
<b>Total (w Meter Project)</b>	<b>Annual \$</b>	<b>936</b>	<b>1,294</b>	<b>1,781</b>	<b>2,143</b>
	Change \$/year		358	486	363
	<b>Change %/year</b>		<b>38%</b>	<b>38%</b>	<b>20%</b>

### 3.4 Sensitivity Analysis and Consideration of Customer Bill Impacts

This Application represents a step-change in the cost of service and rate structures necessary to support ongoing delivery of safe, reliable and cost-effective water supply, now and into the future. While the projected annual cost to customers may be in the range of the absolute amounts faced by customers of other small water utilities, Hemlock acknowledges that transitional impacts between current and proposed rates are significant in percentage terms.

The following section presents a review of the factors that guided the development of the proposed revenue requirements and rate structures with direct consideration of the annual impact to customers of alternative inputs and approaches.

#### 3.4.1 Utility Service Rate – Incremental Impact Sensitivity

Hemlock has sought to moderate customer rate impacts in part by constraining the projected revenue requirements impact of certain forecast cost pressures on utility service operations.

As highlighted below in Table 20, under the rates as proposed Hemlock accepts a degree of risk that working capital requirements will be greater than forecast, that projected inflation will persist at current elevated levels and that projected Repairs and Maintenance costs will remain high at F2024 levels.

Consideration of these factors has reduced the projected annual incremental impact to recovery of the net revenue requirements from 36% to 29%, which is equivalent to a reduction in the total annual bill impact of 6%.

**Table 20 – Utility Service Rate – Incremental Impact Sensitivity – Residential 3**

Utility Service Rate – Incremental Impact		F2024	F2025	F2026	F2027
<b>Proposed</b>	Annual \$	749	963	1,238	1,592
	Change \$/year		214	275	354
	Change %/year		29%	29%	29%
<b>Sensitivity 1</b> Operating Margin 10%	Annual \$	749	984	1,292	1,697
	Change \$/year		235	308	405
	Change %/year		31%	31%	31%
<b>Sensitivity 2</b> Annual Inflation 5%	Annual \$	749	972	1,262	1,639
	Change \$/year		223	290	377
	Change %/year		30%	30%	30%
<b>Sensitivity 3</b> Repairs & Maintenance + 20% (F2024 Projected)	Annual \$	749	984	1,293	1,700
	Change \$/year		235	309	406
	Change %/year		31%	31%	31%
<b>Cumulative Sensitivity (1-3)</b>	Annual \$	749	1,015	1,375	1,864
	Change \$/year		266	361	489
	Change %/year		36%	36%	36%

### 3.4.1 RRF Contribution Rate - Incremental Impact Sensitivity

As reviewed in section 2.4, under the RRF Contribution Rate as proposed, the F2027 balance in the RRF is forecast to be approximately \$86,500, or approximately 17 percent of the forecast F2027 balance that would arise under targeted recovery of the projected annual depreciation value each year over the F2025-F2027 test period.

Table 21 highlights that RRF contributions would need to increase by 73% each year for 3 years to target a balance in the RRF equivalent to recovery of the annual depreciation of the plant over the test period (refer to Sensitivity 1), which would be equivalent to a total customer bill impact of ~15 percent per year.

Notably, Table 21 also highlights the avoided cost (benefit) to customers of shareholder funding only of the Balancing Tank project. Hemlock has not sought authorization to recover the cost of this project from customers through the RRF, which reduces the level of RRF contributions by 48% per year than may have otherwise been required to achieve the equivalent balance in the RRF as proposed.

In consideration of current project funding requirements, the forecast rate increase for utility operations, and of the sensitivity results below, Hemlock considers that lower targeted RRF contributions at this time are reasonable and appropriate, as proposed.

**Table 21 – RRF Contribution Rate – Incremental Impact Sensitivity – Residential 3**

RRF Contribution Rate – Incremental Impact		F2024	F2025	F2026	F2027
<b>Proposed</b>	Annual \$	187	197	207	217
	Change \$/year		10	10	10
	Change %/year		5%	5%	5%
	F2027 RRF Balance \$				86,500
	Ratio to Cumulative Annual Depreciation				17%
<b>Sensitivity 1</b>	Annual \$	187	324	560	968
	Change \$/year		136	236	408
	Change %/year		73%	73%	73%
	F2027 RRF Balance \$				519,000
	Ratio to Cumulative Annual Depreciation				100%
<b>Sensitivity 2</b>	Annual \$	187	231	285	351
	Change \$/year		44	54	67
	Change %/year		23%	23%	23%
	F2027 RRF Balance \$				173,000
	Ratio to Cumulative Annual Depreciation				33%
<b>Sensitivity 3</b>	Annual \$	187	241	309	398
	Change \$/year		54	69	88
	Change %/year		29%	29%	29%
	F2027 RRF Balance \$				201,400
	Ratio to Cumulative Annual Depreciation				39%
<b>Sensitivity 4</b>	Annual \$	187	278	412	611
	Change \$/year		\$90	\$134	\$199
	Change %/year		48%	48%	48%
	F2027 RRF Balance \$				86,500
	Ratio to Cumulative Annual Depreciation				17%
Indicative for Comparison only					



### 3.4.2 Shareholder Loan Repayment Rate - Incremental Impact Sensitivity

A Shareholder Loan in the amount of \$722,000 was approved for recovery in rates by Order 2555. There is therefore no ‘new’ incremental impact of establishing recovery of the Shareholder Loan. However, Hemlock has considered alternative rate structures that may assist moderation of customer bill impacts compared to status quo recovery.

The results presented in Table 22 compare the projected level of Shareholder Loan recovery under alternative rate structures. The Status Quo reflects the equivalent cost for a Residential 3 customer under recovery of the remaining balance of the Shareholder Loan over 8 years at 5% financing, as approved.

Under the proposed rate structure, Hemlock would target recovery of the remaining balance of the Shareholder Loan under equivalent financing terms as approved, but over 15 years instead of the remaining 8 years as approved, and under a levelized rate instead of cost of service amortization as approved. This rate structure will reduce the projected total annual Residential bill by approximately \$100, equivalent to a reduction in the total annual cost of overall rates of approximately 8%. A levelized rate amortized over the remaining 8 year period (Sensitivity 1) will also moderate rate impacts, but to a lesser extent.

**Table 22 – Shareholder Loan Repayment Rate – Incremental Impact Sensitivity – Residential 3**

Shareholder Loan Repayment Rate – Incremental Impact		F2024	F2025	F2026	F2027
<b>Status Quo – Approved</b>	Annual \$	n/a	233	230	226
	Equivalent Cost of Service Rate –		-	-	-
	8 Year remaining Amortization		-	-	-
<b>Proposed</b>	Annual \$	n/a	135	133	131
	Levelized Rate –		(98)	(97)	(95)
	15 year amortization		(8%)	-	-
<b>Sensitivity 1</b>	Annual \$	n/a	217	214	211
	Levelized Rate –		(16)	(16)	(15)
	8 Year remaining Amortization		(1%)	-	-

### 3.4.3 Meter Project Rate - Incremental Impact Sensitivity

Table 23 provides an indicative assessment of incremental rate impacts under alternative rate structures targeted to recovery of the Water Meter Project. An ‘Indicative Proposed’ rate structure is adopted here for the purpose of a comparison of total impacts over the entire test period.

As shown, annual customer bill impacts may be moderated by adopting a levelized rate structure with consideration of the trade-off between the length of the amortization period and total cost recovery over time.

It is important to note that actual incremental impacts may be less than reported in the table as certain multiple residential customers may be served by a single meter.

**Table 23 – Water Meter Project Rate – Incremental Impact Sensitivity – Residential 3**

Water Meter Project Rate – Incremental Impact		F2024	F2025	F2026	F2027
<b>Indicative Proposed</b> Levelized Rate – 10 year amortization	Annual \$	n/a	n/a	203	203
	Change \$/year			203	-
	Change %/year (total bill)			13%	-
<b>Sensitivity 1</b> Cost of Service Rate - 5 Year Amortization	Annual \$	n/a	n/a	381	358
	Change \$/year			381	(23)
	Change %/year (total bill)			24%	-
<b>Sensitivity 2</b> Levelized Rate - 5 Year Amortization	Annual \$	n/a	n/a	339	339
	Change \$/year			339	-
	Change %/year (total bill)			22%	-

### 3.4.4 Total Rate - Residential Bill Impact Sensitivity

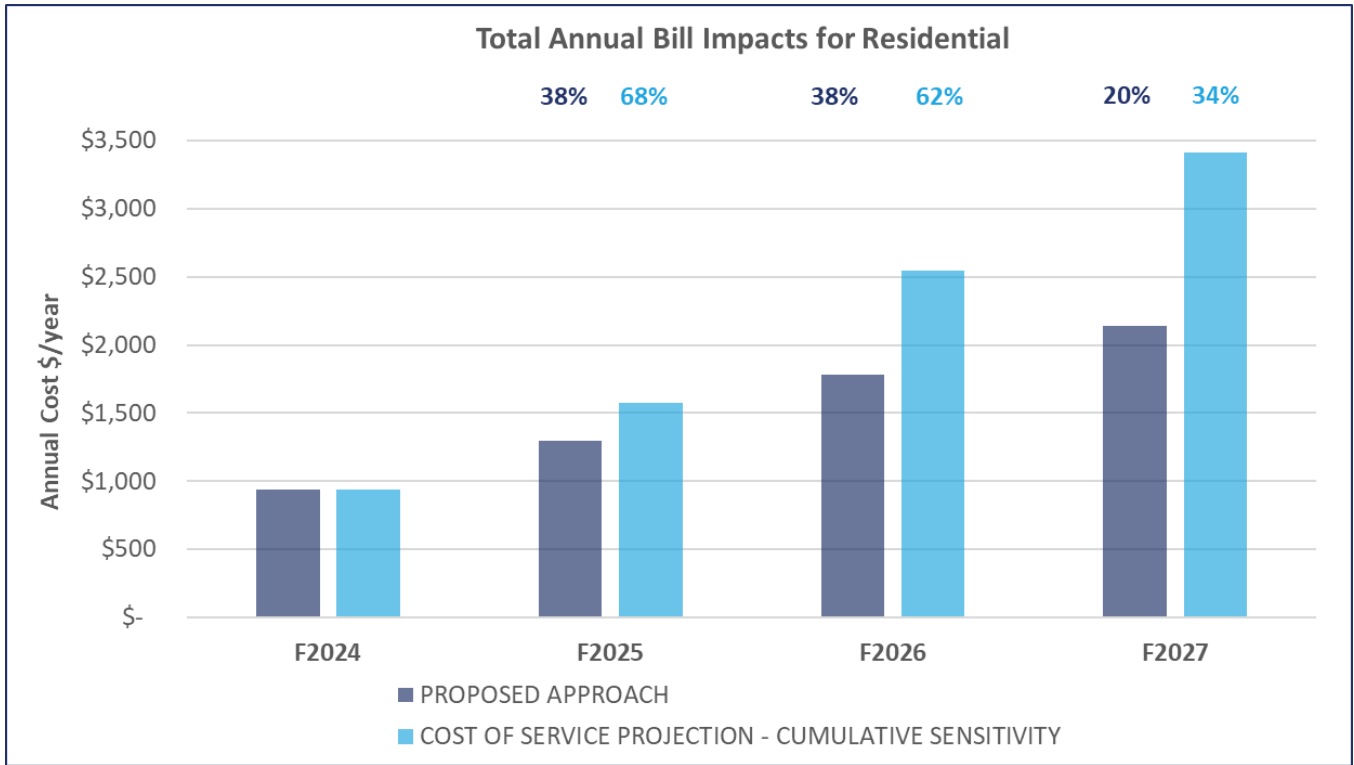
Table 24 and Figure 2 present a summary of the total projected annual cost and year over year bill impacts to Residential customers under the rates as proposed.

As demonstrated below, Hemlock has sought to moderate the year over year customer bill impacts to the extent practical and reasonable under forecast revenue requirements and recovery mechanisms. The impact overall is highlighted in comparison to a cost of service projection that may reasonably be applicable under present cost pressures, expected RRF contributions and a cost of service rate design.

**Table 24 – Total Year over Year Bill Impacts – Residential 3**

Total Year over Year Residential Bill Impacts		F2024	F2025	F2026	F2027
<b>Proposed</b>	Utility Service \$	749	963	1,238	1,592
	RRF \$	187	197	207	217
	Shareholder Loan \$	-	135	133	131
	Meter Project \$ – Indicative	-	-	203	203
	<b>Total Annual \$</b>	<b>936</b>	<b>1,294</b>	<b>1,781</b>	<b>2,143</b>
	<b>Change \$/year</b>		<b>358</b>	<b>486</b>	<b>363</b>
	<b>Change %/year</b>		<b>38%</b>	<b>38%</b>	<b>20%</b>
<b>Cost of Service Projection Cumulative Sensitivity</b>	Utility Service \$ - Sensitivity 1-3	749	1,015	1,375	1,864
	RRF - Compositive Depreciation – 3 year value	187	324	560	968
	Shareholder Loan Cost of Service Rate	-	233	230	226
	Meter Project Cost of Service Rate – Indicative	-	-	381	358
	<b>Total Annual \$</b>	<b>936</b>	<b>1,572</b>	<b>2,546</b>	<b>3,417</b>
	<b>Change \$/year</b>		636	974	871
	<b>Change %/year</b>		<b>68%</b>	<b>62%</b>	<b>34%</b>

Figure 2 – Year over Year Bill Impacts – Proposed versus Indicative Sensitivity – Residential 3



## 4 TERMS AND CONDITIONS

Hemlock proposes the following additional changes to the standard charges and conditions of service set out in its Water Tariff. A clean and blackline version of the Water Tariff reflecting the proposed changes is included and Appendix 2-A and 2-B, respectively.

### 4.1 Liability Provision

Hemlock proposes to amend Section 6 – Interruption of Service to include additional terms governing liability, which will ensure a stronger covenant is in effect to protect the Utility against claims that may be detrimental to its ability to provide water service to its customers. Equivalent terms governing Hemlock’s provision of Electricity service in the Hemlock Valley Area were approved by the BC Utilities Commission under Order G-153-21, effective May 21, 2021.

Please refer to the additional terms set out below. Approval by the Comptroller of these terms in respect of the provision of water service will provide the necessary alignment and protection through the Water Tariff.

#### **New Liability Protection Terms**

*The Utility will endeavor to provide a regular and uninterrupted supply of Water but does not guarantee a constant supply of Water or the maintenance of unvaried frequency and will not be responsible or liable for any loss, injury, damage or expense caused by or resulting from any interruption, termination, failure or defect in the provision of Water, whether caused by the negligence of the Utility, or its representatives or agents or otherwise, except to the extent that the loss, injury, damage or expense results directly from the willful misconduct of the Utility or its representatives or agents, provided, however, that neither the Utility, nor any of its representatives or agents is responsible for any loss of profit, consequential damages, loss of revenue, or other economic loss, even if the loss or damage arises directly from the willful misconduct of the Utility or its representatives or agents.*

*The Utility reserves the right to Terminate Service (including by Disconnection) at any time to prevent fraudulent use of Water, to protect its property, or to protect Service to other Customers, or if the Customer fails to comply with the terms of the tariff, or if the Utility is ordered by a competent government authority to Terminate such Service. The Utility may also temporarily Disconnect a Premises to make repairs or improvements to its water system or in the event of fire, flood or other sudden emergency. The Utility will, whenever practicable, give notice of such Disconnection to the Customer and will restore Service as soon as reasonably possible. Neither the Utility nor any of its representatives or agents will be liable for any loss, injury, damage or expense caused by or arising out of any such Disconnection.*

#### Liability of Other Utilities

*Service under the Water Tariff is sometimes provided by the Utility through the use of property and services provided by or shared with other utilities. It is a condition of Service that any loss or damages, direct or indirect, that the Customer may suffer by reason of any defect in Service*

*under the Water Tariff or any interruption in or failure to provide Service, whether or not caused by negligence, will not be recoverable from such other utilities, and that the Customer will not take proceedings of any kind against any such utilities by reason of any defect in the Service or any interruption in or failure to provide Service to the Customer by the Utility.*

## 4.2 Standard Charges

Hemlock proposes the following updates to the standard charges set out in the terms and conditions of the Water Tariff, which amounts are in general outdated and do not reflect current cost drivers and the imperative to enforce any restrictions to water use that are put into effect.

**Table 25 – Proposed Updates to Standard Charges**

<b>Standard Charge</b>	<b>Current</b>	<b>Proposed</b>	<b>Rationale</b>
<b>Turn-on Fee</b>  Section 1 (b) Application for Service	\$75	\$200	Directional update to align with current costs
<b>Shut-off Charge</b>  Section 1 (c) Application for Service	\$25	\$200	Directional update to align with current costs
<b>Penalty for Contravention of a Water Use Restriction</b>  Section 7 – Restriction of Use	\$50 penalty  Applicable to each contravention during a calendar year following a Water Restriction Notice	\$200 penalty  Applicable to the <u>first</u> contravention during a calendar year following a Water Restriction Notice  \$500 penalty  Applicable to each subsequent contravention during a calendar year following a Water Restriction Notice	Update to ensure a compatible incentive to comply with water use restrictions and to ensure enforcement penalties more properly align with the potential cost implications of non-compliance
<b>Connection of customer service pipe to an existing curb stop</b>  Schedule A – Water Service Connection	\$100	\$300	Directional update to align with current costs

### 4.3 Billing and Payment

Hemlock intends to move to monthly billing of service, and to invoice monthly in arrears at the end of each month. Hemlock considers that this approach is preferred from an administration and cash flow perspective and will align with the planned implementation of usage rates in the future.

The terms of Section 2 – Billing and Payment of the Water Tarriff are amended to reflect monthly billing going forward. The proposed rates set out in section 3.3 are correspondingly expressed as monthly rates in Schedules C and D of the Water Tariff.

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## SCHEDULES

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Revenues	Schedule 3
Rates	Schedule 4
Customer Count	Schedule 5
Revenue at Current Rates	Schedule 6
Customer Rates Calculation	Schedule 6
Levelized Annual Rate Change Inputs and Determination	Schedule 7
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Meter Project Rate Structure – Indicative	Schedule 10
F2025 Interim Rate Increase Calculation	Schedule 11

## Schedule 1 – Revenue Requirements

SCHEDULE 1 - REVENUE REQUIREMENTS	Actual	Actual	Actual	Projected	Forecast	Forecast	Forecast
	F2021	F2022	F2023	F2024	F2025	F2026	F2027
O&M	\$ 150,143	\$ 312,908	\$ 403,809	\$ 406,910	\$ 408,502	\$ 421,067	\$ 433,979
Income Tax provision	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Revenue Requirements before Operating Margin	\$ 150,143	\$ 312,908	\$ 403,809	\$ 406,910	\$ 408,502	\$ 421,067	\$ 433,979
Allowed Operating Margin	\$ 11,561	\$ 24,094	\$ 31,093	\$ 31,332	\$ 20,425	\$ 21,053	\$ 21,699
Total Revenue Requirements with Operating Margin	\$ 161,704	\$ 337,002	\$ 434,902	\$ 438,242	\$ 428,927	\$ 442,120	\$ 455,677
less Other Revenue	\$ (1,100)	\$ -	\$ (13,125)	\$ (1,000)	\$ -	\$ -	\$ -
Net Revenue Requirements (excluding Loan Repayment and RRF Contributions)	\$ 160,604	\$ 337,002	\$ 421,777	\$ 437,242	\$ 428,927	\$ 442,120	\$ 455,677
plus RRF Contributions	\$ 58,337	\$ 59,246	\$ 60,229	\$ 62,865	\$ 67,680	\$ 72,168	\$ 76,937
plus Loan Principal and Interest Payments	\$ 80,133	\$ 80,133	\$ 80,133	\$ 80,133	\$ 46,412	\$ 46,412	\$ 46,412
plus Water Meter Project Cost Recovery	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 33,299	\$ 33,299
plus Other Revenue & Forecast New Connections	\$ 1,100	\$ -	\$ 13,125	\$ 1,000	\$ 9,500	\$ 9,500	\$ 9,500
Total Gross Revenue Requirements	\$ 300,173	\$ 476,380	\$ 575,264	\$ 581,240	\$ 552,518	\$ 603,498	\$ 621,825
Revenue (excluding Loan Repayment, Meter Project, Other Revenue and RRF)	\$ 150,996	\$ 156,878	\$ 159,821	\$ 251,462	\$ 331,195	\$ 432,044	\$ 563,485
plus Loan Principal and Interest Payments	\$ 80,133	\$ 80,133	\$ 80,133	\$ 80,133	\$ 46,412	\$ 46,412	\$ 46,412
plus Water Meter Project Cost Recovery	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 33,299	\$ 33,299
plus Other Revenue & Forecast New Connections	\$ 1,100	\$ -	\$ 13,125	\$ 1,000	\$ 9,500	\$ 9,500	\$ 9,500
plus RRF Contributions	\$ 58,337	\$ 59,246	\$ 60,229	\$ 62,865	\$ 67,680	\$ 72,168	\$ 76,937
Total Revenue	\$ 290,565	\$ 296,256	\$ 313,307	\$ 395,460	\$ 454,787	\$ 593,422	\$ 729,633
less Total Operating and Maintenance Expenses	\$ (150,143)	\$ (312,908)	\$ (403,809)	\$ (406,910)	\$ (408,502)	\$ (421,067)	\$ (433,979)
less Loan Principal and Interest Payments	\$ (80,133)	\$ (80,133)	\$ (80,133)	\$ (80,133)	\$ (46,412)	\$ (46,412)	\$ (46,412)
Less Water Meter Project Cost Recovery	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (33,299)	\$ (33,299)
less RRF Contributions	\$ (58,337)	\$ (59,246)	\$ (60,229)	\$ (62,865)	\$ (67,680)	\$ (72,168)	\$ (76,937)
less Other Revenue & Forecast New Connections	\$ (1,100)	\$ -	\$ (13,125)	\$ (1,000)	\$ (9,500)	\$ (9,500)	\$ (9,500)
less Provision for Income Taxes	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Annual Net Income (Loss)	\$ 853	\$ (156,030)	\$ (243,988)	\$ (155,448)	\$ (77,307)	\$ 10,977	\$ 129,507
Cumulative Net Income - Rate-Setting F2025-F2027					\$ (77,307)	\$ (66,329)	\$ 63,177
<b>Operating Margin</b>							
Operating and Maintenance Expenses	\$ 150,143	\$ 312,908	\$ 403,809	\$ 406,910	\$ 408,502	\$ 421,067	\$ 433,979
Operating Margin	8%	8%	8%	8%	5%	5%	5%
Allowed Operating Margin	\$ 11,561	\$ 24,094	\$ 31,093	\$ 31,332	\$ 20,425	\$ 21,053	\$ 21,699
Cumulative Allowed Operating Margin over the Forecast Test-Period					\$ 20,425	\$ 41,478	\$ 63,177
<b>Income Tax Provision</b>							
Cumulative Net Income F2021-F2027	\$ 853	\$ (155,177)	\$ (399,165)	\$ (554,613)	\$ (631,920)	\$ (620,943)	\$ (491,436)
Income Tax Rate					27%	27%	27%
Income Tax Provision					\$ -	\$ -	\$ -



## Schedule 2 – Operations and Maintenance Costs

SCHEDULE 2 - OPERATIONS & MAINTENANCE		Actual	Actual	Actual	Projected	Forecast	Forecast	Forecast
		F2021	F2022	F2023	F2024	F2025	F2026	F2027
Administration	Total	3,503	7,282	17,518	19,500	20,085	20,688	21,308
	Bad Debt	157	-	-	-	-	-	-
	Courier & Shipping	-	56	386	-	-	-	-
	Computer Repairs & Support	695	1,264	587	1,000	1,030	1,061	1,093
	Professional Development	-	-	-	500	515	530	546
	Office	1,680	766	231	1,000	1,030	1,061	1,093
	Travel - Gas & Mileage	420	-	-	-	-	-	-
	Travel - Food & Entertainment	-	-	84	-	-	-	-
	Auto	551	5,196	16,231	17,000	17,510	18,035	18,576
Repairs & Maintenance	Total	35,629	97,543	143,865	130,400	110,712	114,033	117,454
	General	24,315	70,510	98,429	120,000	100,000	103,000	106,090
	Equipment Rental	-	-	268	-	-	-	-
	Snow Removal	-	4,650	4,938	5,000	5,150	5,305	5,464
	Home Installs	-	14,425	37,792	-	-	-	-
	Maintenance	11,314	20	-	-	-	-	-
	Tools	-	4,596	2,072	2,000	2,060	2,122	2,185
	Security/Fire Protection	-	3,382	366	3,400	3,502	3,607	3,715
Supplies	Total	2,710	3,511	6,464	11,615	7,309	7,528	7,754
	Cleaning & Chemicals	2,710	3,122	6,013	11,000	7,000	7,210	7,426
	Paper & Misc	-	-	-	315	-	-	-
	Uniform & Linen	-	389	451	300	309	318	328
Utilities	Total	10,337	11,882	14,492	13,635	13,981	14,400	14,832
	Propane	509	856	2,295	935	900	927	955
	Cellular	203	1,012	865	1,000	1,030	1,061	1,093
	Hydro - Electric	7,997	8,278	9,703	10,000	10,300	10,609	10,927
	Telephone and Communication	1,628	1,736	1,629	1,700	1,751	1,804	1,858
Personnel	Total	57,585	144,156	139,874	149,560	202,990	209,080	215,352
	Wages	57,585	128,455	122,822	126,000	150,000	154,500	159,135
	Employee Benefits	-	1,781	2,688	3,360	4,760	4,903	5,050
	Retirement Plan	-	354	1,487	9,600	13,600	14,008	14,428
	Admin	-	4,450	10	-	20,000	20,600	21,218
	EI/WCB/cpp/EHT	-	8,754	12,600	9,600	13,600	14,008	14,428
	Training	-	362	267	1,000	1,030	1,061	1,093
Non-Controllable	Total	40,379	48,534	81,596	82,200	53,425	55,337	57,277
	Accounting fees (external)	1,033	1,058	1,190	1,100	1,133	1,167	1,202
	Bank charges & interest	40	112	345	50	52	53	55
	Consulting Fees	-	5,250	27,704	30,000	20,000	20,000	20,000
	Credit card discounts	2,946	2,734	3,001	3,000	3,000	4,000	5,000
	Insurance	7,015	10,498	7,888	7,000	7,210	7,426	7,649
	License fees & dues	1,045	582	667	700	721	743	765
	Management fees	28,000	28,000	40,050	40,050	21,000	21,630	22,279
	Rent Fixed	300	300	751	300	309	318	328
	<b>Total O&amp;M</b>	<b>\$ 150,143</b>	<b>\$ 312,908</b>	<b>\$ 403,809</b>	<b>406,910</b>	<b>408,502</b>	<b>421,067</b>	<b>433,979</b>

## Schedule 3 – Revenues

SCHEDULE 3 - REVENUES	Actual F2021	Actual F2022	Actual F2023	Projected F2024	Forecast F2025	Forecast F2026	Forecast F2027
<b>Utility Service Revenue (excluding RRF)</b>							
Residential 3	\$ 178,214	\$ 179,712	\$ 180,461	\$ 184,205	\$ 241,666	\$ 316,927	\$ 415,467
Residential 4	\$ -	\$ 998	\$ 1,997	\$ 7,987	\$ 10,270	\$ 13,205	\$ 16,979
Residential 5	\$ 3,744	\$ 3,744	\$ 3,744	\$ 4,992	\$ 6,419	\$ 8,253	\$ 10,612
Residential 6	\$ -	\$ -	\$ 1,498	\$ 1,498	\$ 1,926	\$ 2,476	\$ 3,184
Bunkhouse	\$ 10,608	\$ 10,608	\$ 10,608	\$ 10,608	\$ 16,689	\$ 21,459	\$ 27,592
Commercial - Day Lodge	\$ 37,257	\$ 37,257	\$ 37,257	\$ 37,257	\$ 47,905	\$ 61,597	\$ 79,202
Commercial - Low Usage	\$ 3,277	\$ 3,277	\$ 3,277	\$ 3,277	\$ 4,213	\$ 5,418	\$ 6,966
Commercial - Condo Common	\$ 1,638	\$ 1,638	\$ 1,638	\$ 1,638	\$ 2,107	\$ 2,709	\$ 3,483
End of Year Reporting Adjustment	-\$ 3,610	-\$ 224	-\$ 526				
<b>Total</b>	<b>\$ 231,129</b>	<b>\$ 237,011</b>	<b>\$ 239,953</b>	<b>\$ 251,462</b>	<b>\$ 331,195</b>	<b>\$ 432,044</b>	<b>\$ 563,485</b>
<b>RRF Contributions</b>							
Residential 3	\$ 44,554	\$ 44,928	\$ 45,115	\$ 46,051	\$ 49,385	\$ 52,939	\$ 56,727
Residential 4	\$ -	\$ 250	\$ 499	\$ 1,997	\$ 2,099	\$ 2,206	\$ 2,318
Residential 5	\$ 936	\$ 936	\$ 936	\$ 1,248	\$ 1,312	\$ 1,379	\$ 1,449
Residential 6	\$ -	\$ -	\$ 374	\$ 374	\$ 394	\$ 414	\$ 435
Bunkhouse	\$ 2,652	\$ 2,652	\$ 2,652	\$ 2,652	\$ 3,410	\$ 3,584	\$ 3,767
Commercial - Day Lodge	\$ 9,314	\$ 9,314	\$ 9,314	\$ 9,314	\$ 9,790	\$ 10,289	\$ 10,814
Commercial - Low Usage	\$ 819	\$ 819	\$ 819	\$ 819	\$ 861	\$ 905	\$ 951
Commercial - Condo Common	\$ 410	\$ 410	\$ 410	\$ 410	\$ 431	\$ 452	\$ 476
End of Year Reporting Adjustment	-\$ 348	-\$ 63	\$ 109				
<b>Total</b>	<b>\$ 58,337</b>	<b>\$ 59,246</b>	<b>\$ 60,229</b>	<b>\$ 62,865</b>	<b>\$ 67,680</b>	<b>\$ 72,168</b>	<b>\$ 76,937</b>
<b>Total Utility Service Revenue plus RRF Contributions</b>							
Residential 3	\$ 222,768	\$ 224,640	\$ 225,576	\$ 230,256	\$ 291,051	\$ 369,866	\$ 472,194
Residential 4	\$ -	\$ 1,248	\$ 2,496	\$ 9,984	\$ 12,369	\$ 15,411	\$ 19,298
Residential 5	\$ 4,680	\$ 4,680	\$ 4,680	\$ 6,240	\$ 7,730	\$ 9,632	\$ 12,061
Residential 6	\$ -	\$ -	\$ 1,872	\$ 1,872	\$ 2,319	\$ 2,890	\$ 3,618
Bunkhouse	\$ 13,260	\$ 13,260	\$ 13,260	\$ 13,260	\$ 20,099	\$ 25,043	\$ 31,359
Commercial - Day Lodge	\$ 46,571	\$ 46,571	\$ 46,571	\$ 46,571	\$ 57,695	\$ 71,886	\$ 90,016
Commercial - Low Usage	\$ 4,096	\$ 4,096	\$ 4,096	\$ 4,096	\$ 5,074	\$ 6,322	\$ 7,917
Commercial - Condo Common	\$ 2,048	\$ 2,048	\$ 2,048	\$ 2,048	\$ 2,537	\$ 3,161	\$ 3,959
End of Year Reporting Adjustment	-\$ 3,958	-\$ 287	\$ 417				
<b>Total</b>	<b>\$ 289,465</b>	<b>\$ 296,256</b>	<b>\$ 300,182</b>	<b>\$ 314,327</b>	<b>\$ 398,875</b>	<b>\$ 504,211</b>	<b>\$ 640,422</b>
<b>Total Utility Service and RRF Revenue</b>	<b>\$ 289,465</b>	<b>\$ 296,256</b>	<b>\$ 300,182</b>	<b>\$ 314,327</b>	<b>\$ 398,875</b>	<b>\$ 504,211</b>	<b>\$ 640,422</b>
<b>Other Revenue</b>	<b>\$ 1,100</b>	<b>\$ -</b>	<b>\$ 13,125</b>	<b>\$ 1,000</b>	<b>\$ 9,500</b>	<b>\$ 9,500</b>	<b>\$ 9,500</b>
<b>Loan Repayment Revenue</b>					<b>\$ 46,412</b>	<b>\$ 46,412</b>	<b>\$ 46,412</b>
<b>Meter Project Cost Recovery</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 33,299</b>	<b>\$ 33,299</b>
<b>Total Gross Revenue</b>	<b>\$ 290,565</b>	<b>\$ 296,256</b>	<b>\$ 313,307</b>	<b>\$ 315,327</b>	<b>\$ 454,787</b>	<b>\$ 593,422</b>	<b>\$ 729,633</b>
less Other Revenue	-\$ 1,100	-\$ -	-\$ 13,125	-\$ 1,000	-\$ 9,500	-\$ 9,500	-\$ 9,500
less Loan Repayment	-\$ 80,133	-\$ 80,133	-\$ 80,133	-\$ -	-\$ 46,412	-\$ 46,412	-\$ 46,412
less Meter Project Cost	-\$ -	-\$ -	-\$ -	-\$ -	-\$ -	-\$ 33,299	-\$ 33,299
less RRF Contributions	-\$ 58,337	-\$ 59,246	-\$ 60,229	-\$ 62,865	-\$ 67,680	-\$ 72,168	-\$ 76,937
<b>Total Net Revenue</b>	<b>\$ 150,996</b>	<b>\$ 156,878</b>	<b>\$ 159,821</b>	<b>\$ 251,462</b>	<b>\$ 331,195</b>	<b>\$ 432,044</b>	<b>\$ 563,485</b>

## Schedule 4 – Rates

### SCHEDULE 4 - RATES

		Current F2023	Current F2024	Proposed F2025	Proposed F2026	Proposed F2027						
<b>Utility Service Rates</b>												
Residential 3	S/premise/quarter	\$ 187	\$ 187	\$ 241	\$ 309	\$ 398						
Residential 4	S/premise/quarter	\$ 250	\$ 250	\$ 321	\$ 413	\$ 531						
Residential 5	S/premise/quarter	\$ 312	\$ 312	\$ 401	\$ 516	\$ 663						
Residential 6	S/premise/quarter	\$ 374	\$ 374	\$ 481	\$ 619	\$ 796						
Bunkhouse # beds *1/6 rate	S/bed/quarter	\$ 31	\$ 31	\$ 40	\$ 52	\$ 66						
Commercial - Day Lodge	S/premise/quarter	\$ 9,314	\$ 9,314	\$ 11,976	\$ 15,399	\$ 19,801						
Commercial - Low Usage	S/premise/quarter	\$ 205	\$ 205	\$ 263	\$ 339	\$ 435						
Commercial - Condo Common	S/premise/quarter	\$ 205	\$ 205	\$ 263	\$ 339	\$ 435						
<b>RRF Contribution Rate</b>												
Residential 3	S/premise/quarter	\$ 47	\$ 47	\$ 49	\$ 52	\$ 54						
Residential 4	S/premise/quarter	\$ 62	\$ 62	\$ 66	\$ 69	\$ 72						
Residential 5	S/premise/quarter	\$ 78	\$ 78	\$ 82	\$ 86	\$ 91						
Residential 6	S/premise/quarter	\$ 94	\$ 94	\$ 98	\$ 103	\$ 109						
Bunkhouse # beds *1/6 rate	S/bed/quarter	\$ 8	\$ 8	\$ 8	\$ 9	\$ 9						
Commercial - Day Lodge	S/premise/quarter	\$ 2,329	\$ 2,329	\$ 2,447	\$ 2,572	\$ 2,704						
Commercial - Low Usage	S/premise/quarter	\$ 51	\$ 51	\$ 54	\$ 57	\$ 59						
Commercial - Condo Common	S/premise/quarter	\$ 51	\$ 51	\$ 54	\$ 57	\$ 59						
<b>RRF as percentage of Total Rate</b>		<table border="1"> <tr> <td>% of recovery</td> <td>20%</td> <td>20%</td> <td>17%</td> <td>14%</td> <td>12%</td> </tr> </table>					% of recovery	20%	20%	17%	14%	12%
% of recovery	20%	20%	17%	14%	12%							
<b>Shareholder Loan Repayment Rate</b>												
Residential 3	S/premise/quarter			\$ 34	\$ 33	\$ 33						
Residential 4	S/premise/quarter			\$ 45	\$ 44	\$ 44						
Residential 5	S/premise/quarter			\$ 56	\$ 55	\$ 55						
Residential 6	S/premise/quarter			\$ 67	\$ 66	\$ 66						
Bunkhouse # beds *1/6 rate	S/bed/quarter			\$ 6	\$ 6	\$ 5						
Commercial - Day Lodge	S/premise/quarter			\$ 1,678	\$ 1,654	\$ 1,631						
Commercial - Low Usage	S/premise/quarter			\$ 37	\$ 36	\$ 36						
Commercial - Condo Common	S/premise/quarter			\$ 37	\$ 36	\$ 36						
<b>Meter Project Cost Recovery Rate</b>		<table border="1"> <tr> <td>S/customer/quarter</td> <td></td> <td></td> <td>\$ 51</td> <td>\$ 51</td> <td></td> </tr> </table>					S/customer/quarter			\$ 51	\$ 51	
S/customer/quarter			\$ 51	\$ 51								
<b>Connections - At Cost - Projected</b>		<table border="1"> <tr> <td>S/connection</td> <td>\$ 1,900</td> <td>\$ 1,900</td> <td>\$ 1,900</td> <td></td> <td></td> </tr> </table>					S/connection	\$ 1,900	\$ 1,900	\$ 1,900		
S/connection	\$ 1,900	\$ 1,900	\$ 1,900									

## Schedule 5 – Customer Count

SCHEDULE 5 - CUSTOMER COUNT

	Current F2023	Current F2024	Proposed F2025	Proposed F2026	Proposed F2027
Residential 3	241	246	251	256	261
Residential 4	2	8	8	8	8
Residential 5	3	4	4	4	4
Residential 6	1	1	1	1	1
Bunkhouse # beds	85	85	104	104	104
Commercial - Day Lodge	1	1	1	1	1
Commercial - Low Usage	4	4	4	4	4
Commercial - Condo Common	2	2	2	2	2

## Schedule 6 – Revenue at Current Rates

SCHEDULE 6 - REVENUE AT CURRENT RATES	Current	Current	F2025	F2026	F2027
	F2023	F2024			
<b>Utility Service Revenue - Current Rates</b>					
Residential 3	180,461	184,205	187,949	191,693	195,437
Residential 4	1,997	7,987	7,987	7,987	7,987
Residential 5	3,744	4,992	4,992	4,992	4,992
Residential 6	1,498	1,498	1,498	1,498	1,498
Bunkhouse	10,608	10,608	12,979	12,979	12,979
Commercial - Day Lodge	37,257	37,257	37,257	37,257	37,257
Commercial - Low Usage	3,277	3,277	3,277	3,277	3,277
Commercial - Condo Common	1,638	1,638	1,638	1,638	1,638
<b>Total</b>	<b>240,479</b>	<b>251,462</b>	<b>257,577</b>	<b>261,321</b>	<b>265,065</b>
<b>RRF Contributions - Current Rates</b>					
Residential 3	45,115	46,051	46,987	47,923	48,859
Residential 4	499	1,997	1,997	1,997	1,997
Residential 5	936	1,248	1,248	1,248	1,248
Residential 6	374	374	374	374	374
Bunkhouse	2,652	2,652	3,245	3,245	3,245
Commercial - Day Lodge	9,314	9,314	9,314	9,314	9,314
Commercial - Low Usage	819	819	819	819	819
Commercial - Condo Common	410	410	410	410	410
<b>Total</b>	<b>60,120</b>	<b>62,865</b>	<b>64,394</b>	<b>65,330</b>	<b>66,266</b>
<b>Loan Repayment Rate Revenue</b>			<b>46,412</b>	<b>46,412</b>	<b>46,412</b>
<b>Meter Project Cost Rate Revenue</b>				<b>33,299</b>	<b>33,299</b>
<b>Other Revenue</b>	<b>13,125</b>	<b>1,000</b>	<b>9,500</b>	<b>9,500</b>	<b>9,500</b>
<b>Total Gross Revenue</b>	<b>313,724</b>	<b>315,327</b>	<b>377,883</b>	<b>415,862</b>	<b>420,542</b>
less Other Revenue	(13,125)	(1,000)	(9,500)	(9,500)	(9,500)
less Loan Repayment Rate Revenue			(46,412)	(46,412)	(46,412)
less Meter Project Rate Revenue				(33,299)	(33,299)
less RRF Contributions collected	(60,120)	(62,865)	(64,394)	(65,330)	(66,266)
<b>Total Net Revenue</b>	<b>240,479</b>	<b>251,462</b>	<b>257,577</b>	<b>261,321</b>	<b>265,065</b>
<b>Net Revenue Requirement</b>			428,927	442,120	455,677
<b>Annual Revenue Deficiency (Surplus)</b>			171,350	180,799	190,613
<b>Indicative Annual Cost Recovery Impact</b>			67%	6%	5%

## Schedule 7 – Levelized Annual Rate Change Inputs and Determination

### SCHEDULE 7 - LEVELIZED ANNUAL RATE CHANGE INPUTS AND DETERMINATION

#### Utility Service Rate

		F2025	F2026	F2027
Levelized Annual Rate Increase	29%			
Cumulative Allowed Operating Margin		\$ 20,425	\$ 41,478	\$ 63,177
Cumulative Net Income		\$ (77,307)	\$ (66,329)	\$ 63,177
Net Goal Seek Target F2027 = 0				-\$ 0

#### RRF Contribution Rate

		F2027
Levelized Annual RRF Contribution Increase	5%	
Percentage of Cumulative Annual Depreciation Value F2025-F2027		17%
Target Balance in RRF F2027		\$ 86,493
Target Balance Cumulative Balance		\$ 86,493
Net Goal Seek Target F2027 = 0		\$ 0

## Schedule 8 – Replacement Reserve Fund

### SCHEDULE 8 - REPLACEMENT RESERVE FUND

	Actual 2021	Actual 2022	Actual 2023	Projected 2024	Proposed 2025	Proposed 2026	Proposed 2027
<b>Beginning Balance</b>	\$ 25,090	\$ 83,552	\$ 142,911	\$ 203,800	\$ 159,238	\$ -	\$ 9,556
<b>Interest</b>	\$ 126	\$ 113	\$ 661				
<b>RRF Contributions</b>							
From Customer Rates	\$ 58,337	\$ 59,246	\$ 60,229	\$ 62,865	\$ 67,680	\$ 72,168	\$ 76,937
From Rent Charges	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
From Other	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Authorized / Forecast Release</b>							
Well Drilling Project				\$ 107,428	\$ 226,918	\$ 62,612	\$ -
<b>Ending balance</b>	\$ 83,552	\$ 142,911	\$ 203,800	\$ 159,238	\$ -	\$ 9,556	\$ 86,493

## Schedule 9 – Shareholder Loan Repayment Rate Structure

### SCHEDULE 9 - SHAREHOLDER LOAN REPAYMENT RATE

Financing Cost		5.00%																		
	F2020	F2021	F2022	F2023	F2024	1 F2025	2 F2026	3 F2027	4 F2028	5 F2029	6 F2030	7 F2031	8 F2032	9 F2033	10 F2034	11 F2035	12 F2036	13 F2037	14 F2038	15 F2039
<b>Approved Shareholder Loan Repayment</b>																				
Principal	\$29,787	\$46,580	\$48,963	\$51,468	\$54,101	\$56,869	\$59,778	\$62,837	\$66,052	\$69,431	\$72,983	\$76,717	\$26,407							
Interest	\$23,635	\$33,553	\$31,170	\$28,665	\$26,032	\$23,264	\$20,354	\$17,296	\$14,081	\$10,702	\$7,149	\$3,415	\$276							
Total	\$53,422	\$80,133	\$80,133	\$80,133	\$80,133	\$80,133	\$80,133	\$80,133	\$80,133	\$80,133	\$80,133	\$80,133	\$26,683							
<b>Proposed Levelized Rate Design</b>																				
Levelized Rate period	15																			
End Year	F2039																			
Escalation	0%																			
Remaining Loan Payments (Cost of Service Rate)	\$ 74,535	\$ 481,737	\$ 80,133	\$ 80,133	\$ 80,133	\$ 80,133	\$ 80,133	\$ 80,133	\$ 80,133	\$ 80,133	\$ 80,133	\$ 26,683								
<b>Customer Levelized Rate Recovery</b>																				
Total Recovery	\$ 46,412	\$ 481,737	\$ 46,412	\$ 46,412	\$ 46,412	\$ 46,412	\$ 46,412	\$ 46,412	\$ 46,412	\$ 46,412	\$ 46,412	\$ 46,412	\$ 46,412	\$ 46,412	\$ 46,412	\$ 46,412	\$ 46,412	\$ 46,412	\$ 46,412	\$ 46,412
Target Difference =0	\$ -																			
<b>Levelized Rate (pro rata share)</b>																				
Residential 3	\$/premise/quarter	\$ 34	\$ 33	\$ 33																
Residential 4	\$/premise/quarter	\$ 45	\$ 44	\$ 44																
Residential 5	\$/premise/quarter	\$ 56	\$ 55	\$ 55																
Residential 6	\$/premise/quarter	\$ 67	\$ 66	\$ 66																
Bunkhouse # beds *1/6 rate	\$/bed/quarter	\$ 6	\$ 6	\$ 5																
Commercial - Day Lodge	\$/premise/quarter	\$ 1,678	\$ 1,654	\$ 1,631																
Commercial - Low Usage	\$/premise/quarter	\$ 37	\$ 36	\$ 36																
Commercial - Condo Common	\$/premise/quarter	\$ 37	\$ 36	\$ 36																
<b>Incremental Shareholder Cost (Revenue)</b>																				
	\$ 0	\$ 0	\$ 33,721	\$ 33,721	\$ 33,721	\$ 33,721	\$ 33,721	\$ 33,721	\$ 33,721	\$ 33,721	\$ 33,721	\$ 33,721	\$ (19,728)	\$ (46,412)	\$ (46,412)	\$ (46,412)	\$ (46,412)	\$ (46,412)	\$ (46,412)	\$ (46,412)



## Schedule 10 – Meter Project Rate Structure – Indicative

SCHEDULE 10 - WATER METER PROJECT RATE - INDICATIVE

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	F2026	F2027	F2028	F2029	F2030	F2031	F2032	F2033	F2034	F2035	F2036	F2037	F2038	F2039	F2040
Meter cost (engineering, hardware, labour, commissioning, contingency)															
Rate (Depreciation) period															
Debit															
Financing Cost															
Billing Determinants	Premises	164	164	164	164	164	164	164	164	164	164	164	164	164	164
Plant In-Service	Gross additions per year	\$ 229,600	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Fixed Cost of Service															
Opening Balance	\$ 229,600	\$ 206,640	\$ 183,680	\$ 160,720	\$ 137,760	\$ 114,800	\$ 91,840	\$ 68,880	\$ 45,920	\$ 22,960	\$ -	\$ -	\$ -	\$ -	\$ -
Depreciation	\$ 22,960	\$ 22,960	\$ 22,960	\$ 22,960	\$ 22,960	\$ 22,960	\$ 22,960	\$ 22,960	\$ 22,960	\$ 22,960	\$ 22,960	\$ -	\$ -	\$ -	\$ -
Closing Balance	\$ 206,640	\$ 183,680	\$ 160,720	\$ 137,760	\$ 114,800	\$ 91,840	\$ 68,880	\$ 45,920	\$ 22,960	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Mid Year Rate Base	\$ 218,120	\$ 195,160	\$ 172,200	\$ 149,240	\$ 126,280	\$ 103,320	\$ 80,360	\$ 57,400	\$ 34,440	\$ 11,480	\$ -	\$ -	\$ -	\$ -	\$ -
Depreciation	\$ 22,960	\$ 22,960	\$ 22,960	\$ 22,960	\$ 22,960	\$ 22,960	\$ 22,960	\$ 22,960	\$ 22,960	\$ 22,960	\$ -	\$ -	\$ -	\$ -	\$ -
Cost of Capital	\$ 17,450	\$ 15,613	\$ 13,776	\$ 11,939	\$ 10,102	\$ 8,266	\$ 6,429	\$ 4,592	\$ 2,755	\$ 918	\$ -	\$ -	\$ -	\$ -	\$ -
Total Fixed Cost of Service	Levelized Annual NPV	\$ 33,299	\$ 223,437	\$ 40,410	\$ 38,573	\$ 36,736	\$ 34,899	\$ 33,062	\$ 31,226	\$ 29,389	\$ 27,552	\$ 25,715	\$ 23,878	\$ -	\$ -
Levelized Rate Calculation															
Customer Rate Recovery	Escalation Rate														
Total Recovery	0%	Levelized Annual NPV	\$ 33,299	\$ 223,437	\$ 33,299	\$ 33,299	\$ 33,299	\$ 33,299	\$ 33,299	\$ 33,299	\$ 33,299	\$ 33,299	\$ 33,299	\$ -	\$ -
Goal Seek Difference = 0			\$ -												
Indicative \$/meter/Quarter			\$ 51	\$ 51											
Incremental Shareholder Cost (Revenue)	Levelized Annual NPV	\$ 0	\$ 0	\$ 7,111	\$ 5,274	\$ 3,437	\$ 1,600	\$ (236)	\$ (2,073)	\$ (3,910)	\$ (5,747)	\$ (7,584)	\$ (9,420)	\$ -	\$ -

## Schedule 11 – F2025 Interim Rate Increase Calculation

### SCHEDULE 11 - CALCULATION OF F2025 INTERIM RATE INCREASE TO EXISTING FLAT RATE STRUCTURE

F2025 Revenue Target Under Proposed Rates (SCHEDULE 1)		\$	%	
Utility Service Revenue	\$	331,195	74.4%	
RRF Contributions	\$	67,680	15.2%	<i>Set out correspondingly in Appendix 1 - Interim rates</i>
Shareholder Loan Repayment	\$	46,412	10.4%	<i>Set out correspondingly in Appendix 1 - Interim rates</i>
<b>Total</b>	<b>\$</b>	<b>445,287</b>		

Rates	F2024	F2025 Interim	
<b>Residential 3</b>	<b>234</b>	<b>324</b>	<i>Set out correspondingly in Appendix 1 - Interim rates</i>
Residential 4	312	431	
Residential 5	390	539	
Residential 6	468	647	
Bunkhouse # beds *1/6 rate	39	54	
<b>Commercial - Day Lodge</b>	<b>11,643</b>	<b>16,102</b>	<i>Set out correspondingly in Appendix 1 - Interim rates</i>
Commercial - Low Usage	256	354	<i>Set out correspondingly in Appendix 1 - Interim rates</i>
Commercial - Condo Common	256	354	<i>Set out correspondingly in Appendix 1 - Interim rates</i>

F2025 Revenue at F2025 Interim Rates		F2025
Residential 3	\$	324,917
Residential 4	\$	13,808
Residential 5	\$	8,630
Residential 6	\$	2,589
Bunkhouse # beds *1/6 rate	\$	22,438
Commercial - Day Lodge	\$	64,408
Commercial - Low Usage	\$	5,665
Commercial - Condo Common	\$	2,832
<b>Total</b>	<b>\$</b>	<b>445,287</b>
Difference to Target	\$	-

F2025 Interim Rate Increase	Goal Seek Percent Change so Difference = 0	<b>38%</b>
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# **APPENDIX 1**

## **F2025 Interim Rates – Proposed**

### **Water Tariff Schedules C & D**

**Schedule C**

**Residential Service Flat Rates**

Applicability: To residential service customers receiving service.

Rate: \$ 324.00 per quarter, per SFRE effective May 1, 2024

Notes:

1. From the rates collected, 15.2% per customer will be deposited into a Replacement Reserve Trust Fund and may only be released with the written authorization of the Comptroller of Water Rights.
2. From the rates collected, 10.4% per customer will be allocated to repayment of the Shareholder Loan.
3. Rates for residential premises greater than three bedrooms are to be based on the number of bedrooms in the building times 1/3 of the above SFRE rate.
4. Rate for bunkhouses is to be calculated based on the number of beds in the complex times 1/6 of the above SFRE rate.

**Approved on an interim basis** by the Comptroller of Water Rights on \_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_.

Effective Date: \_\_\_\_\_

\_\_\_\_\_  
Secretary to the Comptroller of Water Rights

**Schedule D**

**Commercial Flat Rates**

Applicability: To all commercial customers receiving service.

Rate: Payable quarterly as per below:

Effective May 1, 2024

Day Lodge	\$16,102.80
Low Commercial	
Lift Maint Building, Cat Shop, Firehall & Tube Park	354.00
Condominium Common Areas	354.00

Notes:

1. From the rates collected, 15.2% per customer will be deposited into a Replacement Reserve Trust Fund and may only be released with the written authorization of the Comptroller of Water Rights.
2. From the rates collected, 10.4% per customer will be allocated to repayment of the Shareholder Loan.

**Approved on an interim basis** by the Comptroller of Water Rights on \_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_.

Effective Date: \_\_\_\_\_

\_\_\_\_\_  
Secretary to the Comptroller of Water Rights

# **APPENDIX 2-A**

## **Water Tariff – Proposed**

### **Clean Version**

***WATER UTILITY ACT***  
**WATER TARIFF NO. 4**  
**RATES AND TERMS AND CONDITIONS**  
**FOR WATER SERVICE**

**at:**

**Hemlock Valley**

**By**

**Hemlock Utility Services Ltd.**

#210 – 8399 200<sup>th</sup> Street, Langley BC V2Y 3C2

[rberezan@berezan.ca](mailto:rberezan@berezan.ca)

**Contact Person(s)**

Ralph Berezan

604-882-0808

This Tariff is available for public inspection at:

20955 Hemlock Valley Road

Accepted for Filing by the Comptroller of Water Rights on \_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_.

Effective Date: \_\_\_\_\_

\_\_\_\_\_  
Secretary to the Comptroller of Water Rights

## Definitions

In this tariff the following definitions shall apply:

- a) "**authorized premises**" means premises which are entitled to, and authorized for, service in accordance with the Certificate of Public Convenience and Necessity of the Utility;
- b) "**business day**" means a day during which normal business is conducted and usually includes Monday through Friday. A statutory holiday is not considered a Business Day.
- c) "**Comptroller**" means the Comptroller of Water Rights under the *Water Sustainability Act* and includes a Deputy Comptroller or a person appointed by the Minister as Acting Comptroller;
- d) "**customer**" means any person who is the owner or lessee of an authorized premises;
- e) "**multi-residential service**" means Condominiums;
- f) "**premises**" means land and buildings thereon;
- g) "**rate**" includes:
  - (1) a general, individual or joint rate, fee, charge, rental or other compensation of the Utility,
  - (2) a schedule or tariff respecting a rate;
- h) "**residential service**" means in-house use plus lawn & garden sprinkling to a maximum area of 1/10 of an acre;
- i) "**service**" shall include:
  - 1) the supply of water provided by the Utility to the customer,
  - 2) the plant, equipment, apparatus, appliances, property and facilities employed by or in connection with the utility in providing the supply of water to the property line of the premise.
- j) "**single family residential equivalent (SFRE)**" 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 townhouse and side-by-side duplex up to 3 bedrooms per unit.
- k) "**unit**" means a building of accommodation occupied separately or to be occupied separately by an owner or lessee and, which either separately or jointly with other units, receives service from a connection to the Utility's waterworks and, without restricting the generality of the foregoing, includes the separate units of accommodation in all dwellings.
- l) "**Utility**" means *Hemlock Utility Services Ltd.*



## Terms and Conditions

### 1. *Application for Service*

For authorized premises, charges for service are intended to recover the Utility's costs. The following charges are applicable depending upon the circumstances:

- (a) At the time an application is made for service to premises which had not previously been connected for service, the applicable charge shown in Schedule "A (a)" and/or "A (b)" of this tariff shall be paid by the applicant.
- (b) A turn-on fee of \$200.00 shall be applicable when:
  - (i) a turn-on of a valve at an existing curb-stop is made at a date after the service connection was installed;
  - (ii) a customer becomes re-connected after service has been shut-off at the request of the customer, for non-payment of rates, or for violation of these terms and conditions.
- (c) A service shut-off charge of \$200.00 shall be applicable when service has been temporarily shut-off at the request of the customer, or for non-payment of rates, or for violation of these terms and conditions.
- (d) At the time an application for service is made by a new customer, an administration charge of \$25.00 shall apply. This charge is not only applicable for a new connection, but also when a new customer, either owner or lessee of the premises, commences receiving service to an existing authorized premises.

### 2. *Billing and Payment*

All bills are issued **Monthly** (except for Availability Charges, which are issued annually) and are due and payable within fifteen business days of the date of issue. Flat rates (and flat rate portion of metered rates) are billed in arrears. For metered rates, consumption is billed in arrears. If the amount due on any bill has not been paid in full within fifteen business days from the date of issue a further bill will be rendered to include the overdue amount plus a late payment charge of \$25.00.

If a cheque is returned by the customer's financial institution an administration fee of \$40.00 will be charged.

### **3. Service Shut-Off Due to Non-Payment**

When an account becomes one month overdue, service may be shut off upon 15 business days' written notice. A notice sent by registered mail to the last known postal address of the customer shall be deemed good and sufficient notice. A collection charge of \$50.00 shall be paid each time a Utility representative attends a customer's premises to disconnect service, following the issuance of a shut-off notice.

Service will not be turned on until all outstanding charges against the service, including the collection charge, shut-off charge and turn-on fee (Sections 1(b) and 1(c)) have been paid.

### **4. Discontinuance of Service**

- a) Customers must give at least two working days' notice in writing at the office of the Utility when requesting discontinuance of service and shall be liable for payment for all service until such service has been discontinued.
- b) Any customer who desires to discontinue the use of water for any of the purposes stated in his application for service shall give notice of his intention, in writing, at the office of the Utility, and shall further show that any fittings used for the supply of water for such purposes have been disconnected.
- c) The Utility may discontinue service to any customer who contravenes the terms and conditions contained in this tariff. In the event of further contravention of the tariff, the Utility may detach the service connection from the customer's premises and, upon re-application for service, the customer shall be liable to pay the Utility's cost of performing the said detachment and re-connection in addition to other applicable rates and charges.

### **5. Access to Premises**

A condition of service shall be the customer's consent, upon reasonable notice, for representatives of the Utility to enter onto the customer's property for the purposes of making connections/disconnections, taking water quality samples, reading meters, inspecting pipes and appurtenances, checking on the use or waste of water or determining compliance with these terms and conditions.

### **6. Interruption of Service and Liability**

The Utility will endeavor to provide a regular and uninterrupted supply of Water but does not guarantee a constant supply of Water or the maintenance of unvaried frequency and will not be responsible or liable for any loss, injury, damage or expense caused by or resulting from any interruption, termination, failure or defect in the provision of Water, whether caused by the negligence of the Utility, or its representatives or agents or otherwise, except to the extent that the loss, injury, damage or expense results directly from the willful misconduct of the Utility or its representatives or agents, provided, however, that neither the Utility, nor any of its representatives or agents is responsible for any loss of profit, consequential damages, loss of revenue, or other economic loss, even if the loss or damage arises directly from the willful misconduct of the Utility or its representatives or agents.

The Utility reserves the right to Terminate Service (including by Disconnection) at any time to prevent fraudulent use of Water, to protect its property, or to protect Service to other Customers, or if the Customer fails to comply with the terms of the tariff, or if the Utility is ordered by a competent government authority to Terminate such Service. The Utility may also temporarily Disconnect a Premises to make repairs or improvements to its water system or in the event of fire, flood or other sudden emergency. The Utility will, whenever practicable, give notice of such Disconnection to the Customer and will restore Service as soon as reasonably possible. Neither the Utility nor any of its representatives or agents will be liable for any loss, injury, damage or expense caused by or arising out of any such Disconnection.

#### Liability of Other Utilities

Service under the Water Tariff is sometimes provided by the Utility through the use of property and services provided by or shared with other utilities. It is a condition of Service that any loss or damages, direct or indirect, that the Customer may suffer by reason of any defect in Service under the Water Tariff or any interruption in or failure to provide Service, whether or not caused by negligence, will not be recoverable from such other utilities, and that the Customer will not take proceedings of any kind against any such utilities by reason of any defect in the Service or any interruption in or failure to provide Service to the Customer by the Utility.

For service interruptions in excess of 48 hours, a proportionate rebate will be allowed to customers served on flat rates.

### **7. Restriction of Use of Water**

The Utility may restrict or prohibit the use of water for gardening, sprinkling, air conditioning, the filling of swimming pools, or other purposes when, in its opinion, such action is necessary to conserve the water supply or to maintain water pressure. A customer who contravenes water use restrictions may receive one warning notice per calendar year before a fine for contravention applies. A notice delivered to the customer's premises shall be deemed good and sufficient notice of a contravention. A further contravention during the calendar year is subject to a \$200 fine, and each subsequent contravention during the calendar year is subject to a \$500 fine.

### **8. Limits on Water Use**

No customer shall sell or dispose of any water or permit same to be carried away, or use water or allow it to be used in premises, or for purposes other than those stated in the customer's application for service.

The Utility may, if in its opinion an undue amount of water is used at any time by any customer being served under a flat rate, install a water meter and thereafter charge the customer in accordance with the meter rates included in this tariff. All such meters shall remain the property of the Utility.

### **9. Multiple Dwellings**

In the case of apartment houses, duplexes or houses containing one or more suites, each such accommodation, whether or not self-contained, shall **not** be considered as a separate customer unless it is so specified in a schedule of this Tariff other than side-by-side duplexes.

**10. *Work to be done by the Utility***

No person, who is not an agent or employee of the Utility, shall make any connections with or alterations to or tamper with any of the Utility's waterworks, including any water meter belonging to the Utility, nor turn on or off any valve or curb stop of the Utility, without prior authorization by the Utility in writing.

**11. *Minimum Size of Services***

The minimum size of pipe used to serve any one premises shall be 3/4" (19 mm) nominal diameter. The type and diameter of pipe used on the customer's premises should be selected with due consideration of pressure losses from friction.

**12. *Minimum Earth Cover Over Services***

All services on the customer's premises shall be buried below the maximum depth of frost penetration but in any event at a minimum depth of 6 feet below the surface of the ground.

**13. Ownership of Service**

All water service pipes and fittings carrying water from the main to the customer's property line shall be the property of the Utility.

**14. Stop Cock**

The customer shall provide a shut-off valve (stop cock) inside each of the customer's buildings in which water is used, for the use of the customer in case of leaky or defective pipes or fixtures, or in case the premises is vacated.

**15. Customer's Service Pipes**

Service connection materials installed on the customer's premises shall be rated by the manufacturer to sustain a minimum working pressure of 160 psi (1100 kilopascals). No service pipe or fitting shall be covered until they have been inspected and approved by the Utility.

**16. Dangerous Cross-Connections**

The customer shall not permit the plumbing on their premises to be connected to any source of water supply other than the Utility's, or to any potential source of contamination, without first obtaining the Utility's permission in writing. Any back-flow preventers deemed necessary by the Utility to prevent the entry of contaminants shall be installed at the customer's expense, in the time frame provided by the Utility. Discovery of an unauthorized cross-connection, or cross-connection that is not suitably protected by a certified backflow preventer, may result in immediate shut-off of water service without notice by the Utility. The water shall not be turned on again until such repairs have been made to the satisfaction of the Utility, and the charges paid as provided for in clauses 1 and 4(c) of this tariff. No person whose water supply is shut off pursuant to this section shall have any claim against the Utility for discontinuance of supply.

**17. Condition of Customer's Pipes and Fixtures**

All customers at their own risk and expense shall keep their pipes, stop cocks and other fixtures in good working order and shall protect them from frost and other damage. The Utility shall, within a reasonable time notify the customer of any leaky pipes and fixtures that are evident on the premises. If the necessary repairs are not made within two (2) working days after such notice has been given, or when the condition of the pipes or fixtures is such as to cause damage to property or material waste of water or damage to property, then without further notice the Utility may shut off the water supply. The water shall not be turned on again until such repairs have been made to the satisfaction of the Utility, and the charges paid as provided by clauses 1 and 4(c) of this tariff. No person whose water supply is shut off pursuant to this section shall have any claim against the Utility for discontinuance of supply.

**18. Notice of Service Shut-off**

The Utility shall have the right at all times to shut off the water supply temporarily to any premises in order to make repairs, replacements, alterations and extensions to the Utility's waterworks as shall, in the opinion of the Utility, be deemed necessary. Whenever possible the Utility will give reasonable advance notice of shut-off, and, in all cases where the Utility expects service to be interrupted for 24 hours or more, the Utility shall give advance notice to its customers.

**19. Application for Extension of Service**

For lots not authorized for service, all applications for extension of water service shall be made in writing by the owner or lessee of the premises to which the application refers, or by the owner's duly authorized agent. All applications for service shall state:

- a) the purpose(s) for which the service is to be used (i.e., domestic, commercial, irrigation, etc.);
- b) the legal description of the property;
- c) the number and location of the premises to be served.

Charges for extension of service are intended to recover the Utility's costs. For each application, an initial deposit of \$200 is required to be paid at the time of application. Additional costs incurred by the Utility for legal, engineering and other fees, including Utility staff time, will be payable by the applicant and may require further deposits prior to undertaking certain aspects of the application process.

Each application for extension of service requires an amendment to the Utility's Certificate of Public Convenience & Necessity (CPCN) to include the lot(s) within its authorized service area. In response to each application, the Utility will detail the terms and conditions of service including all rates and charges applicable. Prior to the issuance of an amended CPCN, confirmation is required that either a deposit into the Utility's Deferred Capacity Reserve/Trust Fund under Schedule B of this tariff has been made or that additional works have been constructed and contributed to the Utility by the applicant as required by the Comptroller of Water Rights.

If the application for extension of service does not proceed within one year of paying the deposit into the Deferred Capacity Reserve/Trust Fund under Schedule B of this tariff, the Utility will refund the amount plus interest to the applicant. Any costs directly associated with the application incurred by the Utility in excess of the \$200 initial deposit can be recovered from the monies paid into the Deferred Capacity Reserve/Trust Fund before issuing the refund to the applicant.

Once the amended CPCN is issued, and while the lot(s) are not receiving service, Availability of Service (rent) charges under Schedule G of this tariff will be applicable.

Additional applications shall be made for all extensions of service to additional premises and for additional purposes.

## **Water Main Extensions**

### **General Provisions**

- 19.1 Any waterworks installed pursuant to an application for extension of service shall be the sole property of the Utility.
- 19.2 The size, type, quality of materials, and their location will be specified by the Utility and the actual construction will be done by the Utility or by a construction agency acceptable to it.
- 19.3 In arriving at the length of the main extension necessary to render service to any point, the distance from such point to the nearest distribution main shall be considered along lines of proper construction and common practice in the location of public waterworks, due consideration being given to the general layout of the Utility's system. The length of the extension shall be measured along the lines of proper construction from the nearest distribution main to the middle of the furthest property to be served.
- 19.4 The Utility will not be required to make extensions where road grades have not been brought to those established by public authority.
- 19.5 Where an extension must comply with a law, statute, bylaw, ordinance, regulation, specification or order of a public authority, the estimated cost of the extension shall be based upon the waterworks required to comply therewith.

### **Method of Allocating Advances and Refunds**

- 19.6 **Advances by original applicants:**  
When more than one applicant is involved and an advance is required in payment for a main extension the amount of the advance shall be divided equally or as otherwise agreed among the applicants are made known to the Utility.
- 19.7 **Advances by subsequent customers:**  
An extension charge equal to a pro-rata share of the original cost of the main extension shall be collected by the Utility from each additional customer who connects to the original main extension within five years. The extension charge collected above shall be refunded equally **or as otherwise agreed** to the customers who already have advances deposited with the Utility as a result of connection to the extension, so that in the result all subscribers will have paid their pro-rata share or as otherwise agreed by them and made known to the Utility.

19.8 Advances which may be required from applicants in payment for extensions will be held by the Utility without interest. Refunds will be made in accordance with these rules and no *person* will have refunded to him an amount in excess of the amount of his advance. Refunds will be paid to the current registered owners of the properties on account of which the deposits were received. Any amount not used by the Utility for construction of the extension and not refunded at the end of five years from the date the advance was received by the Utility from the original applicant or applicants will be retained by the Utility and transferred to the "Deferred Capacity Reserve/Trust Fund" account. Thereafter additional customers will be connected without being required to pay the extension charge.

## **20. Winter Construction**

The Utility reserves the right to refuse to make extensions and install service pipe to a customer's property line under frost conditions in the winter months that would make the undertaking impractical or in the Utility's opinion, excessively costly.

## **21. Amendments to Tariff**

The rates and charges recorded in this tariff are the only lawful, enforceable and collectable rates and charges of the Utility, and shall not be amended without the consent of the Comptroller. The Comptroller, on his own motion, or on complaint of the Utility or other interested persons that the existing rates in effect and collected or any rates charged or attempted to be charged for service by the Utility are unjust, unreasonable, insufficient, unduly discriminatory or in contravention of the *Water Utility Act*, regulations or law, may, after investigation, determine the just, reasonable and sufficient rates to be observed and in force, and shall, by order, fix the rates.

The Utility may submit to the Comptroller, by letter of application together with full supporting documentation, proposed amendments to rates and charges, and other terms and conditions of service. After initial review of the application, the Comptroller may require the Utility to give an acceptable form of notice of the application to its customers and other interested persons. The notice will state a specific time period within which any interested persons may submit objections to the application to the Comptroller. After investigation of the application and any objections thereto, the Comptroller will decide the matter and notify all interested persons of his decision.

## **22. Disputes**

In case of disagreement or dispute regarding the application of any provision of these terms and conditions, or in circumstances where the application of the terms and conditions appears impracticable or unjust to either party, the Utility, or the applicant or applicants, may refer the matter to the Comptroller for adjudication.



**Schedule A****Water Service Connection**

The charges shown below apply to connections to a main (see page 2, section 1).

The connection charge (a) recovers the cost incurred by the Utility, and not otherwise recovered, of installing a service connection from the water main to a curb stop and, if required, a meter at the property line of the customer's premises or in the building. Cost herein includes any administrative overhead incurred.

Where, at a time prior to a customer's application for service, a service connection has been installed at no cost to the Utility or at a cost otherwise recovered by the Utility, then upon connection of the service pipe, the rate shown in (b) below shall be paid upon application for service.

<b>(a)</b>	Connection Charge:	<b>At Cost</b>
<b>(b)</b>	Connection of customer's service pipe to an existing curb stop:	<b>\$300.00</b>

**Schedule B****Contribution in Aid of Future Construction**

Where as a result of premises becoming qualified as authorized premises a greater number of units require or may require service from the utility, thus utilizing waterworks capacity presently or in the future, then, upon application for an extension of service, in addition to the connection charge and any main extension costs, the charge shown below shall be paid.

For each residential service premises  
qualifying as authorized premises

To be determined

**Notes:**

1. For other than a residential service premises, the charge shall be calculated on a single family residential equivalent basis.
2. Monies collected are to be deposited to the Utility's Deferred Capacity Reserve/Trust Fund and may only be released with the written authorization of the Comptroller of Water Rights.

**Schedule C****Residential Service Flat Rates**

Applicability: To residential service customers receiving service.

## Utility Services Rate:

\$ 80.00	per month, per SFRE effective May 1, 2024
\$ 103.00	per month, per SFRE effective May 1, 2025
\$ 133.00	per month, per SFRE effective May 1, 2026

## Replacement Reserve Fund Rate:

\$ 16.00	per month, per SFRE effective May 1, 2024
\$ 17.00	per month, per SFRE effective May 1, 2025
\$ 18.00	per month, per SFRE effective May 1, 2026

## Shareholder Loan Repayment Rate:

\$ 11.00	per month, per SFRE effective May 1, 2024
\$ 11.00	per month, per SFRE effective May 1, 2025
\$ 11.00	per month, per SFRE effective May 1, 2026

## Notes:

1. Amounts collected from the Replacement Reserve Fund Rate will be deposited into a Replacement Reserve Trust Fund and may only be released with the written authorization of the Comptroller of Water Rights.
2. Rates for residential premises greater than three bedrooms are to be based on the number of bedrooms in the building times 1/3 of the above SFRE rate.
3. Rate for bunkhouses is to be calculated based on the number of beds in the complex times 1/6 of the above SFRE rate.

**Schedule D****Commercial Flat Rates**

Applicability: To all commercial customers receiving service.

Rate: Payable monthly as per below:

## Utility Services Rate:

	Day Lodge	Low Commercial (Lift Maintenance Building, Cat Shop, Firehall & Tube Park)	Condominium Common
Effective May 1, 2024	\$3,992	\$88	\$88
Effective May 1, 2025	\$5,133	\$113	\$113
Effective May 1, 2026	\$6,600	\$145	\$145

## Replacement Reserve Fund Rate:

	Day Lodge	Low Commercial (Lift Maintenance Building, Cat Shop, Firehall & Tube Park)	Condominium Common
Effective May 1, 2024	\$816	\$18	\$18
Effective May 1, 2025	\$857	\$19	\$19
Effective May 1, 2026	\$901	\$20	\$20

## Shareholder Loan Repayment Rate:

	Day Lodge	Low Commercial (Lift Maintenance Building, Cat Shop, Firehall & Tube Park)	Condominium Common
Effective May 1, 2024	\$559	\$12	\$12
Effective May 1, 2025	\$551	\$12	\$12
Effective May 1, 2026	\$544	\$12	\$12

## Notes:

1. Amounts collected from the Replacement Reserve Fund Rate will be deposited into a Replacement Reserve Trust Fund and may only be released with the written authorization of the Comptroller of Water Rights.

**Schedule E****Meter Rates**

Applicability: To all customers with metered services.

Rate: Not applicable

## Notes:

- 1 From the rates collected, \_\_\_\_\_% or \$ \_\_\_\_\_ per customer will be deposited into a Replacement Reserve/Trust Fund and may only be released with the written authorization of the Comptroller of Water Rights.
- 2 Additional units within the same building are considered to be ½ of a residential service premises and are to pay ½ of the residential service or metered rate.
- 3 Seasonal users who request that their water service be shut off are to be charged at \_\_\_\_\_% of the residential service user rate while their service is disconnected and be subject to the shut-off and turn-on fees per sections 1(b) and 1(c) of the Tariff.

**Schedule F**

**Fire Hydrant & Standpipe Rates**

(Per Fire Protection Agreement)

Applicability: Within that portion of the utility's authorized service area in the \_\_\_\_\_ fire protection district or other recognized local fire protection authority.

Rates: Hydrants \$ Not Applicable \_\_\_\_\_  
Standpipes \$ Not Applicable \_\_\_\_\_

### **Schedule G**

#### **Availability of Service (Rent) Charges**

**Applicability:** To owners of the legal subdivision with Rent Charge Agreements eligible to be registered on title. The Rent Charge becomes effective and due and payable on the first day of the month following CPCN issuance and acceptance of certified as-built drawings (i.e., when lot or lots are eligible for subdivision registration).

**Availability:** All owners of the lots to which this Rent Charge is applicable shall pay the rate during the period they are not users of water service.

**Rate:** Not Applicable

**Notes:**

1. For other than residential services lots, the Rent Charge shall be calculated on a SFRE basis.
2. From the rates collected, 22% per year will be deposited into a Replacement Reserve/Trust Fund and may only be released with the written authorization of the Comptroller of Water Rights.
3. Once a customer has received approval to connect to the Utility's waterworks, has passed inspection and has been accepted by the Utility as a customer, this Rent Charge will no longer apply to the portion of the property connected to the Utility's waterworks while service is being received. A pro-rated refund of the Rent Charge will be credited to the customer's account, if applicable. If service is temporarily shut-off (e.g., seasonal use), the customer shall pay a minimum of the Rent Charge payable on a pro-rated basis while disconnected or a greater amount if specified in another rate schedule(s) of this Tariff, but not both.
4. For the purposes of this Schedule, townhouses and side- by-side duplexes are equivalent to one (1) single family residential premises.
5. Any arrears of Rent Charges shall bear interest from the due date until payment at a rate of 18% per annum accruing daily, and shall be a charge upon the Lands or Future Lot or Lots in question in the same manner as the Rent Charge charged on the Lands.

**APPENDIX 2-B**

**Water Tariff – Proposed**

**Blackline Version**



***WATER UTILITY ACT***

**WATER TARIFF NO. 34**

**RATES AND TERMS AND CONDITIONS  
FOR WATER SERVICE**

**at:**

**Hemlock Valley**

**By**

**Hemlock Utility Services Ltd.**

#210 – 8399 200<sup>th</sup> Street, Langley BC V2Y 3C2

[rberezan@berezan.ca](mailto:rberezan@berezan.ca)

**Contact Person(s)**

Ralph Berezan

604-882-0808

This Tariff is available for public inspection at:

20955 Hemlock Valley Road

Accepted for Filing by the Comptroller of Water Rights on \_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_.

Effective Date: \_\_\_\_\_

\_\_\_\_\_  
Secretary to the Comptroller of Water Rights

## Definitions

In this tariff the following definitions shall apply:

- a) "**authorized premises**" means premises which are entitled to, and authorized for, service in accordance with the Certificate of Public Convenience and Necessity of the Utility;
- b) "**business day**" means a day during which normal business is conducted and usually includes Monday through Friday. A statutory holiday is not considered a Business Day.
- c) "**Comptroller**" means the Comptroller of Water Rights under the *Water Sustainability Act* and includes a Deputy Comptroller or a person appointed by the Minister as Acting Comptroller;
- d) "**customer**" means any person who is the owner or lessee of an authorized premises;
- e) "**multi-residential service**" means Condominiums;
- f) "**premises**" means land and buildings thereon;
- g) "**rate**" includes:
  - (1) a general, individual or joint rate, fee, charge, rental or other compensation of the Utility,
  - (2) a schedule or tariff respecting a rate;
- h) "**residential service**" means in-house use plus lawn & garden sprinkling to a maximum area of 1/10 of an acre;
- i) "**service**" shall include:
  - 1) the supply of water provided by the Utility to the customer,
  - 2) the plant, equipment, apparatus, appliances, property and facilities employed by or in connection with the utility in providing the supply of water to the property line of the premise.
- j) "**single family residential equivalent (SFRE)**" 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 townhouse and side-by-side duplex up to 3 bedrooms per unit.
- k) "**unit**" means a building of accommodation occupied separately or to be occupied separately by an owner or lessee and, which either separately or jointly with other units, receives service from a connection to the Utility's waterworks and, without restricting the generality of the foregoing, includes the separate units of accommodation in all dwellings.
- l) "**Utility**" means *Hemlock Utility Services Ltd.*

## Terms and Conditions

### 1. *Application for Service*

For authorized premises, charges for service are intended to recover the Utility's costs. The following charges are applicable depending upon the circumstances:

- (a) At the time an application is made for service to premises which had not previously been connected for service, the applicable charge shown in Schedule "A (a)" and/or "A (b)" of this tariff shall be paid by the applicant.
- (b) A turn-on fee of ~~\$75.00~~ 200.00 shall be applicable when:
  - (i) a turn-on of a valve at an existing curb-stop is made at a date after the service connection was installed;
  - (ii) a customer becomes re-connected after service has been shut-off at the request of the customer, for non-payment of rates, or for violation of these terms and conditions.
- (c) A service shut-off charge of ~~\$25.00~~ 200.00 shall be applicable when service has been temporarily shut-off at the request of the customer, or for non-payment of rates, or for violation of these terms and conditions.
- (d) At the time an application for service is made by a new customer, an administration charge of \$25.00 shall apply. This charge is not only applicable for a new connection, but also when a new customer, either owner or lessee of the premises, commences receiving service to an existing authorized premises.

### 2. *Billing and Payment*

All bills are issued ~~Quarterly~~ Monthly (except for Availability Charges, which are issued annually) and are due and payable within fifteen business days of the date of issue. Flat rates (and flat rate portion of metered rates) are billed in ~~arrears~~ advance of service. For metered rates, consumption is billed in arrears. If the amount due on any bill has not been paid in full within fifteen business days from the date of issue a further bill will be rendered to include the overdue amount plus a late payment charge of \$25.00.

If a cheque is returned by the customer's financial institution an administration fee of \$40.00 will be charged.

### **3. Service Shut-Off Due to Non-Payment**

When an account becomes one month overdue, service may be shut off upon 15 business days' written notice. A notice sent by registered mail to the last known postal address of the customer shall be deemed good and sufficient notice. A collection charge of \$50.00 shall be paid each time a Utility representative attends a customer's premises to disconnect service, following the issuance of a shut-off notice.

Service will not be turned on until all outstanding charges against the service, including the collection charge, shut-off charge and turn-on fee (Sections 1(b) and 1(c)) have been paid.

### **4. Discontinuance of Service**

- a) Customers must give at least two working days' notice in writing at the office of the Utility when requesting discontinuance of service and shall be liable for payment for all service until such service has been discontinued.
- b) Any customer who desires to discontinue the use of water for any of the purposes stated in his application for service shall give notice of his intention, in writing, at the office of the Utility, and shall further show that any fittings used for the supply of water for such purposes have been disconnected.
- c) The Utility may discontinue service to any customer who contravenes the terms and conditions contained in this tariff. In the event of further contravention of the tariff, the Utility may detach the service connection from the customer's premises and, upon re-application for service, the customer shall be liable to pay the Utility's cost of performing the said detachment and re-connection in addition to other applicable rates and charges.

### **5. Access to Premises**

A condition of service shall be the customer's consent, upon reasonable notice, for representatives of the Utility to enter onto the customer's property for the purposes of making connections/disconnections, taking water quality samples, reading meters, inspecting pipes and appurtenances, checking on the use or waste of water or determining compliance with these terms and conditions.

### **6. Interruption of Service and Liability**

The Utility will endeavor to provide a regular and uninterrupted supply of Water but does not guarantee a constant supply of Water or the maintenance of unvaried frequency and will not be responsible or liable for any loss, injury, damage or expense caused by or resulting from any interruption, termination, failure or defect in the provision of Water, whether caused by the negligence of the Utility, or its representatives or agents or otherwise, except to the extent that the loss, injury, damage or expense results directly from the willful misconduct of the Utility or its representatives or agents, provided, however, that neither the Utility, nor any of its representatives or agents is responsible for any loss of profit, consequential damages, loss of revenue, or other economic loss, even if the loss or damage arises directly from the willful misconduct of the Utility or its representatives or agents.

The Utility reserves the right to Terminate Service (including by Disconnection) at any time to prevent fraudulent use of Water, to protect its property, or to protect Service to other Customers, or if the Customer fails to comply with the terms of the tariff, or if the Utility is ordered by a competent government authority to Terminate such Service. The Utility may also temporarily Disconnect a Premises to make repairs or improvements to its water system or in the event of fire, flood or other sudden emergency. The Utility will, whenever practicable, give notice of such Disconnection to the Customer and will restore Service as soon as reasonably possible. Neither the Utility nor any of its representatives or agents will be liable for any loss, injury, damage or expense caused by or arising out of any such Disconnection.

#### Liability of Other Utilities

Service under the Water Tariff is sometimes provided by the Utility through the use of property and services provided by or shared with other utilities. It is a condition of Service that any loss or damages, direct or indirect, that the Customer may suffer by reason of any defect in Service under the Water Tariff or any interruption in or failure to provide Service, whether or not caused by negligence, will not be recoverable from such other utilities, and that the Customer will not take proceedings of any kind against any such utilities by reason of any defect in the Service or any interruption in or failure to provide Service to the Customer by the Utility.

~~The Utility intends to maintain at all times an adequate and continuous supply of water at suitable pressures but accepts no liability for interruptions due to circumstances beyond its control. However, f~~

~~For service~~ interruptions in excess of 48 hours, a proportionate rebate will be allowed to customers served on flat rates.

### **7. Restriction of Use of Water**

The Utility may restrict or prohibit the use of water for gardening, sprinkling, air conditioning, the filling of swimming pools, or other purposes when, in its opinion, such action is necessary to conserve the water supply or to maintain water pressure. A customer who contravenes water use restrictions may receive one warning notice per calendar year before a fine for contravention applies. A notice delivered to the customer's premises shall be deemed good and sufficient notice of a contravention. A further contravention during the calendar year is subject to a \$200 fine, and each subsequent contravention during the calendar year is subject to a \$500 fine. For each subsequent contravention during the calendar year, a \$50.00 fine is applicable.

### **8. Limits on Water Use**

No customer shall sell or dispose of any water or permit same to be carried away, or use water or allow it to be used in premises, or for purposes other than those stated in the customer's application for service.

The Utility may, if in its opinion an undue amount of water is used at any time by any customer being served under a flat rate, install a water meter and thereafter charge the customer in accordance with the meter rates included in this tariff. All such meters shall remain the property of the Utility.

**9. Multiple Dwellings**

In the case of apartment houses, duplexes or houses containing one or more suites, each such accommodation, whether or not self-contained, shall **not** be considered as a separate customer unless it is *so* specified in a schedule of this Tariff other than side-by-side duplexes.

**10. Work to be done by the Utility**

No person, who is not an agent or employee of the Utility, shall make any connections with or alterations to or tamper with any of the Utility's waterworks, including any water meter belonging to the Utility, nor turn on or off any valve or curb stop of the Utility, without prior authorization by the Utility in writing.

**11. Minimum Size of Services**

The minimum size of pipe used to serve any one premises shall be 3/4" (19 mm) nominal diameter. The type and diameter of pipe used on the customer's premises should be selected with due consideration of pressure losses from friction.

**12. Minimum Earth Cover Over Services**

All services on the customer's premises shall be buried below the maximum depth of frost penetration but in any event at a minimum depth of 6 feet below the surface of the ground.

### **13. Ownership of Service**

All water service pipes and fittings carrying water from the main to the customer's property line shall be the property of the Utility.

### **14. Stop Cock**

The customer shall provide a shut-off valve (stop cock) inside each of the customer's buildings in which water is used, for the use of the customer in case of leaky or defective pipes or fixtures, or in case the premises is vacated.

### **15. Customer's Service Pipes**

Service connection materials installed on the customer's premises shall be rated by the manufacturer to sustain a minimum working pressure of 160 psi (1100 kilopascals). No service pipe or fitting shall be covered until they have been inspected and approved by the Utility.

### **16. Dangerous Cross-Connections**

The customer shall not permit the plumbing on their premises to be connected to any source of water supply other than the Utility's, or to any potential source of contamination, without first obtaining the Utility's permission in writing. Any back-flow preventers deemed necessary by the Utility to prevent the entry of contaminants shall be installed at the customer's expense, in the time frame provided by the Utility. Discovery of an unauthorized cross-connection, or cross-connection that is not suitably protected by a certified backflow preventer, may result in immediate shut-off of water service without notice by the Utility. The water shall not be turned on again until such repairs have been made to the satisfaction of the Utility, and the charges paid as provided for in clauses 1 and 4(c) of this tariff. No person whose water supply is shut off pursuant to this section shall have any claim against the Utility for discontinuance of supply.

### **17. Condition of Customer's Pipes and Fixtures**

All customers at their own risk and expense shall keep their pipes, stop cocks and other fixtures in good working order and shall protect them from frost and other damage. The Utility shall, within a reasonable time notify the customer of any leaky pipes and fixtures that are evident on the premises. If the necessary repairs are not made within two (2) working days after such notice has been given, or when the condition of the pipes or fixtures is such as to cause damage to property or material waste of water or damage to property, then without further notice the Utility may shut off the water supply. The water shall not be turned on again until such repairs have been made to the satisfaction of the Utility, and the charges paid as provided by clauses 1 and 4(c) of this tariff. No person whose water supply is shut off pursuant to this section shall have any claim against the Utility for discontinuance of supply.

### **18. Notice of Service Shut-off**

The Utility shall have the right at all times to shut off the water supply temporarily to any premises in order to make repairs, replacements, alterations and extensions to the Utility's waterworks as shall, in the opinion of the Utility, be deemed necessary. Whenever possible the Utility will give reasonable advance notice of shut-off, and, in all cases where the Utility expects service to be interrupted for 24 hours or more, the Utility shall give advance notice to its customers.

### **19. Application for Extension of Service**

For lots not authorized for service, all applications for extension of water service shall be made in writing by the owner or lessee of the premises to which the application refers, or by the owner's duly authorized agent. All applications for service shall state:

- a) the purpose(s) for which the service is to be used (i.e., domestic, commercial, irrigation, etc.);
- b) the legal description of the property;
- c) the number and location of the premises to be served.

Charges for extension of service are intended to recover the Utility's costs. For each application, an initial deposit of \$200 is required to be paid at the time of application. Additional costs incurred by the Utility for legal, engineering and other fees, including Utility staff time, will be payable by the applicant and may require further deposits prior to undertaking certain aspects of the application process.

Each application for extension of service requires an amendment to the Utility's Certificate of Public Convenience & Necessity (CPCN) to include the lot(s) within its authorized service area. In response to each application, the Utility will detail the terms and conditions of service including all rates and charges applicable. Prior to the issuance of an amended CPCN, confirmation is required that either a deposit into the Utility's Deferred Capacity Reserve/Trust Fund under Schedule B of this tariff has been made or that additional works have been constructed and contributed to the Utility by the applicant as required by the Comptroller of Water Rights.

If the application for extension of service does not proceed within one year of paying the deposit into the Deferred Capacity Reserve/Trust Fund under Schedule B of this tariff, the Utility will refund the amount plus interest to the applicant. Any costs directly associated with the application incurred by the Utility in excess of the \$200 initial deposit can be recovered from the monies paid into the Deferred Capacity Reserve/Trust Fund before issuing the refund to the applicant.

Once the amended CPCN is issued, and while the lot(s) are not receiving service, Availability of Service (rent) charges under Schedule G of this tariff will be applicable.

Additional applications shall be made for all extensions of service to additional premises and for additional purposes.



## **Water Main Extensions**

### **General Provisions**

- 19.1 Any waterworks installed pursuant to an application for extension of service shall be the sole property of the Utility.
- 19.2 The size, type, quality of materials, and their location will be specified by the Utility and the actual construction will be done by the Utility or by a construction agency acceptable to it.
- 19.3 In arriving at the length of the main extension necessary to render service to any point, the distance from such point to the nearest distribution main shall be considered along lines of proper construction and common practice in the location of public waterworks, due consideration being given to the general layout of the Utility's system. The length of the extension shall be measured along the lines of proper construction from the nearest distribution main to the middle of the furthest property to be served.
- 19.4 The Utility will not be required to make extensions where road grades have not been brought to those established by public authority.
- 19.5 Where an extension must comply with a law, statute, bylaw, ordinance, regulation, specification or order of a public authority, the estimated cost of the extension shall be based upon the waterworks required to comply therewith.

### **Method of Allocating Advances and Refunds**

- 19.6 Advances by original applicants:  
When more than one applicant is involved and an advance is required in payment for a main extension the amount of the advance shall be divided equally or as otherwise agreed among the applicants are made known to the Utility.
- 19.7 Advances by subsequent customers:  
An extension charge equal to a pro-rata share of the original cost of the main extension shall be collected by the Utility from each additional customer who connects to the original main extension within five years. The extension charge collected above shall be refunded equally **or as otherwise agreed** to the customers who already have advances deposited with the Utility as a result of connection to the extension, so that in the result all subscribers will have paid their pro-rata share or as otherwise agreed by them and made known to the Utility.

19.8 Advances which may be required from applicants in payment for extensions will be held by the Utility without interest. Refunds will be made in accordance with these rules and no *person* will have refunded to him an amount in excess of the amount of his advance. Refunds will be paid to the current registered owners of the properties on account of which the deposits were received. Any amount not used by the Utility for construction of the extension and not refunded at the end of five years from the date the advance was received by the Utility from the original applicant or applicants will be retained by the Utility and transferred to the "Deferred Capacity Reserve/Trust Fund" account. Thereafter additional customers will be connected without being required to pay the extension charge.

## **20. Winter Construction**

The Utility reserves the right to refuse to make extensions and install service pipe to a customer's property line under frost conditions in the winter months that would make the undertaking impractical or in the Utility's opinion, excessively costly.

## **21. Amendments to Tariff**

The rates and charges recorded in this tariff are the only lawful, enforceable and collectable rates and charges of the Utility, and shall not be amended without the consent of the Comptroller. The Comptroller, on his own motion, or on complaint of the Utility or other interested persons that the existing rates in effect and collected or any rates charged or attempted to be charged for service by the Utility are unjust, unreasonable, insufficient, unduly discriminatory or in contravention of the *Water Utility Act*, regulations or law, may, after investigation, determine the just, reasonable and sufficient rates to be observed and in force, and shall, by order, fix the rates.

The Utility may submit to the Comptroller, by letter of application together with full supporting documentation, proposed amendments to rates and charges, and other terms and conditions of service. After initial review of the application, the Comptroller may require the Utility to give an acceptable form of notice of the application to its customers and other interested persons. The notice will state a specific time period within which any interested persons may submit objections to the application to the Comptroller. After investigation of the application and any objections thereto, the Comptroller will decide the matter and notify all interested persons of his decision.

## **22. Disputes**

In case of disagreement or dispute regarding the application of any provision of these terms and conditions, or in circumstances where the application of the terms and conditions appears impracticable or unjust to either party, the Utility, or the applicant or applicants, may refer the matter to the Comptroller for adjudication.

**Schedule A****Water Service Connection**

The charges shown below apply to connections to a main (see page 2, section 1).

The connection charge (a) recovers the cost incurred by the Utility, and not otherwise recovered, of installing a service connection from the water main to a curb stop and, if required, a meter at the property line of the customer's premises or in the building. Cost herein includes any administrative overhead incurred.

Where, at a time prior to a customer's application for service, a service connection has been installed at no cost to the Utility or at a cost otherwise recovered by the Utility, then upon connection of the service pipe, the rate shown in (b) below shall be paid upon application for service.

(a)	Connection Charge:	<b>At Cost</b>
(b)	Connection of customer's service pipe to an existing curb stop:	<del>\$100.00</del> <b><u>300.00</u></b>

**Schedule B****Contribution in Aid of Future Construction**

Where as a result of premises becoming qualified as authorized premises a greater number of units require or may require service from the utility, thus utilizing waterworks capacity presently or in the future, then, upon application for an extension of service, in addition to the connection charge and any main extension costs, the charge shown below shall be paid.

For each residential service premises  
qualifying as authorized premises

To be determined

**Notes:**

1. For other than a residential service premises, the charge shall be calculated on a single family residential equivalent basis.
2. Monies collected are to be deposited to the Utility's Deferred Capacity Reserve/Trust Fund and may only be released with the written authorization of the Comptroller of Water Rights.

## Schedule C

### Residential Service Flat Rates

Applicability: To residential service customers receiving service.

Utility Services Rate: \$ ~~180.00~~ per quarter, per SFRE effective September 1, 2019

~~\$ 234.00~~ per quarter, per SFRE effective May 1, 2020

\$ 80.00 per month, per SFRE effective May 1, 2024

\$ 103.00 per month, per SFRE effective May 1, 2025

\$ 133.00 per month, per SFRE effective May 1, 2026

Replacement Reserve Fund Rate:

\$ 16.00 per month, per SFRE effective May 1, 2024

\$ 17.00 per month, per SFRE effective May 1, 2025

\$ 18.00 per month, per SFRE effective May 1, 2026

Shareholder Loan Repayment Rate:

\$ 11.00 per month, per SFRE effective May 1, 2024

\$ 11.00 per month, per SFRE effective May 1, 2025

\$ 11.00 per month, per SFRE effective May 1, 2026

Notes:

- Amounts collected from the Replacement Reserve Fund Rate ~~From the rates collected, 15% per customer starting September 1, 2019 and 20% per customer starting May 1, 2020~~ will be deposited into a Replacement Reserve Trust Fund and may only be released with the written authorization of the Comptroller of Water Rights.
- Rates for residential premises greater than three bedrooms are to be based on the number of bedrooms in the building times 1/3 of the above SFRE rate.
- ~~Rate for bunkhouses is to be calculated based on the number of beds in the complex times 1/6 of the above SFRE rate. Currently, Bunkhouse rate is equivalent to 17.5 SFREs.~~

**Schedule D****Commercial Flat Rates**

Applicability: To all commercial customers receiving service.

Rate: Payable ~~quarterly~~ monthly as per below:

<u>Effective September 1, 2019</u>	
Day Lodge	\$ 8,956.00
Low Commercial	
— Lift Maint Building, Cat Shop, Firehall & Tube Park	197.00
Condominium Common Areas	197.00

<u>Effective May 1, 2020</u>	
Day Lodge	\$11,642.80
Low Commercial	
— Lift Maint Building, Cat Shop, Firehall & Tube Park	256.00
Condominium Common Areas	256.00

**Utility Services Rate:**

	<u>Day Lodge</u>	<u>Low Commercial (Lift Maintenance Building, Cat Shop, Firehall &amp; Tube Park)</u>	<u>Condominium Common</u>
<u>Effective May 1, 2024</u>	<u>\$3,992</u>	<u>\$88</u>	<u>\$88</u>
<u>Effective May 1, 2025</u>	<u>\$5,133</u>	<u>\$113</u>	<u>\$113</u>
<u>Effective May 1, 2026</u>	<u>\$6,600</u>	<u>\$145</u>	<u>\$145</u>

**Replacement Reserve Fund Rate:**

	<u>Day Lodge</u>	<u>Low Commercial (Lift Maintenance Building, Cat Shop, Firehall &amp; Tube Park)</u>	<u>Condominium Common</u>
<u>Effective May 1, 2024</u>	<u>\$816</u>	<u>\$18</u>	<u>\$18</u>
<u>Effective May 1, 2025</u>	<u>\$857</u>	<u>\$19</u>	<u>\$19</u>
<u>Effective May 1, 2026</u>	<u>\$901</u>	<u>\$20</u>	<u>\$20</u>

**Shareholder Loan Repayment Rate:**

	<u>Day Lodge</u>	<u>Low Commercial (Lift Maintenance Building, Cat Shop, Firehall &amp; Tube Park)</u>	<u>Condominium Common</u>
<u>Effective May 1, 2024</u>	<u>\$559</u>	<u>\$12</u>	<u>\$12</u>
<u>Effective May 1, 2025</u>	<u>\$551</u>	<u>\$12</u>	<u>\$12</u>
<u>Effective May 1, 2026</u>	<u>\$544</u>	<u>\$12</u>	<u>\$12</u>

**Notes:**

- ~~Amounts collected from the Replacement Reserve Fund Rate From the rates collected, 15% per customer starting September 1, 2019 and 20% per customer starting May 1, 2020~~ will be deposited into a Replacement Reserve Trust Fund and may only be released with the written authorization of the Comptroller of Water Rights.

**Schedule E****Meter Rates**

Applicability: To all customers with metered services.

Rate: Not applicable

**Notes:**

- 1 From the rates collected, \_\_\_\_\_% or \$ \_\_\_\_\_ per customer will be deposited into a Replacement Reserve/Trust Fund and may only be released with the written authorization of the Comptroller of Water Rights.
- 2 Additional units within the same building are considered to be ½ of a residential service premises and are to pay ½ of the residential service or metered rate.
- 3 Seasonal users who request that their water service be shut off are to be charged at \_\_\_\_\_% of the residential service user rate while their service is disconnected and be subject to the shut-off and turn-on fees per sections 1(b) and 1(c) of the Tariff.

**Schedule F**

**Fire Hydrant & Standpipe Rates**

(Per Fire Protection Agreement)

Applicability: Within that portion of the utility's authorized service area in the \_\_\_\_\_ fire protection district or other recognized local fire protection authority.

Rates: Hydrants \$ Not Applicable \_\_\_\_  
Standpipes \$ Not Applicable \_\_\_\_



### **Schedule G**

#### **Availability of Service (Rent) Charges**

**Applicability:** To owners of the legal subdivision with Rent Charge Agreements eligible to be registered on title. The Rent Charge becomes effective and due and payable on the first day of the month following CPCN issuance and acceptance of certified as-built drawings (i.e., when lot or lots are eligible for subdivision registration).

**Availability:** All owners of the lots to which this Rent Charge is applicable shall pay the rate during the period they are not users of water service.

**Rate:** Not Applicable

**Notes:**

1. For other than residential services lots, the Rent Charge shall be calculated on a SFRE basis.
2. From the rates collected, 22% per year will be deposited into a Replacement Reserve/Trust Fund and may only be released with the written authorization of the Comptroller of Water Rights.
3. Once a customer has received approval to connect to the Utility's waterworks, has passed inspection and has been accepted by the Utility as a customer, this Rent Charge will no longer apply to the portion of the property connected to the Utility's waterworks while service is being received. A pro-rated refund of the Rent Charge will be credited to the customer's account, if applicable. If service is temporarily shut-off (e.g., seasonal use), the customer shall pay a minimum of the Rent Charge payable on a pro-rated basis while disconnected or a greater amount if specified in another rate schedule(s) of this Tariff, but not both.
4. For the purposes of this Schedule, townhouses and side- by-side duplexes are equivalent to one (1) single family residential premises.
5. Any arrears of Rent Charges shall bear interest from the due date until payment at a rate of 18% per annum accruing daily, and shall be a charge upon the Lands or Future Lot or Lots in question in the same manner as the Rent Charge charged on the Lands.

# **APPENDIX 3**

## **Depreciation Study**

Wedler Engineering LLP  
204 – 2790 Gladwin Road  
Abbotsford, BC V2S 4S8  
T: 604-746-0300 | F: 604-746-0301



**WEDLER**  
ENGINEERING

March 20, 2020

File Ref: A20-0879/A

Berezan Hospitality Group  
210 – 8399 200th Street  
Langley, BC, V2Y 3C2

Attention: Angela Roy

Dear Angela

**Reference: Hemlock Utility Services Ltd.  
Water Utility Asset Depreciation Schedule, Hemlock Valley Water System, Agassiz, BC**

Our assessment of asset depreciation rates for the above referenced water utility system has been completed.

Please find herewith:

- Appendix 'A' – Hemlock Valley Water Utility – Depreciation Schedule
- Appendix 'B' – Hemlock Valley Water Utility – Replacement Cost Estimate and Assumptions

Appendix 'A' has been produced from the Microsoft excel spreadsheet of "Standard Depreciation Rates for Private Water Utilities in BC" (August 2015 version) provided by the Ministry of Forests Lands and Natural Resource Operations (MFLNRO) on the BC Provincial government's website. The individual line item cost estimates in Appendix 'A' were obtained from the replacement cost estimates calculated in Appendix 'B'.

Accordingly the required Annual Replacement Reserve Fund Contribution is estimated to be \$130,875.23.

Should you or MFLNRO require the information to be reviewed or re-formatted to meet the requirements of the current water rates approval agreement, please don't hesitate to contact the undersigned.

In addition, please be advised that the Depreciation Schedule in Appendix 'A' was completed as though the infrastructure is at the beginning of its design life. We will leave the utility company and Province to determine how and whether to account for the financial implications of incremental design life expired to date. If required, we would be pleased to assist by undertaking further calculations and discussions with you and Provincial personnel on this subject.

Yours truly,  
Wedler Engineering LLP,  
Per:

Reviewed by:

Frazer Drury, Civil Engineering Project Manager  
[fdrury@wedler.com](mailto:fdrury@wedler.com)

Reg Leffers, Eng.L, Partner\*  
[rleffers@wedler.com](mailto:rleffers@wedler.com)

\*Wedler Engineering LLP is a partnership of corporations.



APPENDIX 'A'  
HEMLOCK VALLEY WATER UTILITY

Date: 11-Mar-20  
Printed: 11-Mar-20  
Estimator: TRC / FID  
Reviewed: RL  
Wedler Project Number: A20-0879/A

DEPRECIATION SCHEDULE - As per Schedule 'A' Standard Depreciation Rates for Private Water Utilities in BC (August 2015 version)

NARUC Acct No.	Account Title	Prescribed Service Life SL [Years]	Prescribed Depreciation Rate DR = 100/SL [% per Year]	Estimated Costs EC [\$]	Annual Depreciation <sup>2</sup> AD = EC*DR/100 [\$]	Actual Costs <sup>3</sup> AC [\$]	Annual Depreciation <sup>4</sup> AD = AC*DR/100 [\$]
<b>A</b>	<b>Source of Supply Plant</b>						
304	<b>Structures and Improvements</b>						
304.1	Wood Frame	30	3.3%	\$5,775.00	\$192.50		
304.2	Steel	40	2.5%	\$18,711.00	\$467.78		
304.3	Cement Block	40	2.5%				
304.4	Reinforced Concrete or Brick	50	2.0%				
304.5	Miscellaneous	25	4.0%				
305	<b>Collecting and Impounding Reservoirs</b>						
305.1	Wood Structures	35	2.9%	\$1,617.00	\$46.20		
305.2	Earth Fill Structures	60	1.7%				
305.3	Concrete Structures	75	1.3%	\$75,033.62	\$1,000.45		
306	<b>Lake, River and Other Intakes</b>						
306.1	Wood Structures	35	2.9%				
306.2	Concrete Structures	60	1.7%	\$8,974.29	\$149.57		
307	<b>Wells and Springs</b>						
309	<b>Supply Mains</b>						
309.1	PVC AWWA C900	75	1.3%				
309.2	HDPE AWWA C906	75	1.3%				
309.3	Ductile/Cast Iron	60	1.7%	\$17,151.75	\$285.86		
309.4	Steel, Cement Lined	50	2.0%				
309.5	Concrete	50	2.0%				
309.6	Sub-Marine Mains	20	5.0%				
339	<b>Other Misc. Water Source Plant</b>	25	4.0%				
<b>B</b>	<b>Pumping Plant</b>						
304	<b>Structures and Improvements</b>						
304.1	Wood Frame	30	3.3%				
304.2	Steel	40	2.5%				
304.3	Cement Block	40	2.5%				
304.4	Reinforced Concrete or Brick	50	2.0%				
304.5	Miscellaneous	25	4.0%				
310	<b>Power Generation Equipment</b>						
311	<b>Pumping Equipment</b>						
311.1	Electric Pumping Equipment	25	4.0%				
311.2	Diesel Pumping Equipment	25	4.0%				
311.3	Other Pumping Equipment	25	4.0%				
339	<b>Other Miscellaneous Pumping Plant</b>	25	4.0%				
<b>C</b>	<b>Water Treatment Plant</b>						
304	<b>Structures and Improvements</b>						
304.1	Wood Frame	30	3.3%	\$61,352.49	\$2,045.08		
304.2	Steel	40	2.5%				
304.3	Cement Block	40	2.5%	\$11,444.59	\$286.11		
304.4	Reinforced Concrete or Brick	50	2.0%	\$206,929.16	\$4,138.58		
304.5	Miscellaneous	25	4.0%				
	Site Preparation/ Site servicing	60	1.7%	\$207,304.53	\$3,455.08		
320	<b>Treatment Equipment</b>						
320.1	Sand & Other Media Filtration Equipment	30	3.3%				
320.2	Membrane Filtration Equipment	15	6.7%				
320.3	Chlorination	15	6.7%				
320.4	Other Water Treatment Equipment	20	5.0%	\$331,196.16	\$16,559.81		
339	<b>Other Miscellaneous Treatment Plant</b>	25	4.0%	\$177,191.89	\$7,087.68		
<b>D</b>	<b>Transm. and Distribution Plant</b>						
304	<b>Structures and Improvements</b>						
304.1	Wood Frame	30	3.3%				
304.2	Steel	40	2.5%				
304.3	Cement Block	40	2.5%				
304.4	Reinforced Concrete or Brick	50	2.0%				
304.5	Miscellaneous	25	4.0%				
330	<b>Distribution Reservoirs</b>						
330.1	Concrete (underground)	60	1.7%				
330.2	Steel (above ground)	50	2.0%	\$171,350.27	\$3,427.01		
331	<b>Transmission and Distribution Mains</b>						
331.1	PVC AWWA C900	75	1.3%	\$257,016.97	\$3,426.89		
331.2	HDPE AWWA C906	75	1.3%				
331.3	Ductile/Cast Iron	60	1.7%	\$1,369,877.91	\$22,831.30		
331.4	Steel, Cement Lined	50	2.0%	\$2,598.75	\$51.98		
331.5	Concrete	50	2.0%				
331.6	Sub-Marine Mains	20	5.0%				
333	<b>Services</b>						
333.1	Concrete	50	2.0%	\$612,265.50	\$12,245.31		
334	<b>Meters and Meter Installations</b>						
334.1	Concrete	25	4.0%				
335	<b>Hydrants / Standpipes</b>						
335.1	Steel	50	2.0%	\$188,496.00	\$3,769.92		
339	<b>Other Transm. and Distribution Plant</b>	25	4.0%				
<b>E</b>	<b>General Plant</b>						
304	<b>Structures and Improvements</b>						
304.1	Wood Frame	30	3.3%				
304.2	Steel	40	2.5%				
304.3	Cement Block	40	2.5%				
304.4	Reinforced Concrete or Brick	50	2.0%				
304.5	Miscellaneous	25	4.0%				
340	<b>Office Furniture and Equipment</b>						
340.1	Office Furniture	20	5.0%				
349	<b>Computer Equipment</b>						
349.1	Computer Equipment	5	20.0%				
341	<b>Transportation Equipment</b>						
341.1	Transportation Equipment	7	14.3%				
342	<b>Stores Equipment</b>						
342.1	Stores Equipment	20	5.0%				
343	<b>Tools, Shop and Garage Equipment</b>						
343.1	Tools, Shop and Garage Equipment	15	6.7%				
344	<b>Laboratory Equipment</b>						
344.1	Laboratory Equipment	15	6.7%				
345	<b>Power Operated Equipment</b>						
345.1	Power Operated Equipment	15	6.7%				
346	<b>Communication Equipment</b>						
346.1	Communication Equipment - SCADA	10	10.0%				
346.2	Other Communication Equipment	10	10.0%				
347	<b>Miscellaneous Equipment</b>						
347.1	Miscellaneous Equipment	20	5.0%				
<b>F</b>	<b>Other Tangible Plant</b>						
348	<b>Other Tangible Plant</b>						
348.1	PRV Chambers	50	2.0%	\$1,016,400.00	\$20,328.00		
348.2	Reservoir Valving Chamber	50	2.0%	\$23,003.72	\$460.07		
348.3	Air Valve Chambers	50	2.0%	\$39,501.00	\$790.02		
348.4	Blow Off Chambers	50	2.0%	\$20,674.50	\$413.49		
<b>G</b>	<b>Intangible Plant</b>						
301	<b>Organization</b>	100	1.0%				
302	<b>Franchises and Consents</b>	100	1.0%				
<b>a</b>	<b>Subtotal Construction Cost [\$]</b>			\$4,823,866.11		0	
<b>b</b>	<b>Total Annual Depreciation [\$]</b>				\$103,458.68		0
<b>c</b>	<b>Composite Depreciation Rate [%], = b / a * 100</b>		2.1%				
<b>d</b>	<b>Engineering Cost<sup>5</sup> at 10% * a</b>			\$482,386.61			
<b>e</b>	<b>Annual Engineering Cost Component [\$] = d * c / 100</b>				\$10,345.87		0
<b>f</b>	<b>Contingency<sup>7</sup>, at 15% * a</b>			\$795,937.91		n/a	
<b>g</b>	<b>Annual Contingency Cost Component [\$] = f * c / 100</b>				\$17,070.68		n/a
<b>h</b>	<b>Total Annual Cost = Annual RRF<sup>8</sup> Contribution Going Forwards = b + e + g</b>				\$130,875.23		0

Notes:

- Estimated Costs at CPCN application/pre-construction stage, in CAD \$, from CPCN Application Guide - Appendix 6 - Capital Cost Estimate Form
- Annual Depreciation based on Estimated Costs at CPCN stage.
- Actual Costs at post-construction approval stage, in CAD \$, from CPCN Application Guide - Appendix 6 - Capital Cost Estimate Form
- Annual Depreciation based on Actual Costs at post-construction approval stage; for establishing the final Water Tariff
- List any applicable items such as Valve Chambers, PRV Stations etc.
- Total engineering fees including survey cost, (see CPCN Application Guide - Appendix 6 - Capital Cost Estimate Form)
- Contingency allowance at CPCN application/pre-construction stage, (see CPCN Application Guide - Appendix 6 - Capital Cost Estimate Form)
- RRF - Replacement Reserve Fund, equals rows b + e + g





**APPENDIX 'B'**  
**HEMLOCK VALLEY WATER UTILITY**  
**REPLACEMENT COST ESTIMATE AND ASSUMPTIONS**

Date: **27-Feb-20**  
 Printed: **27-Feb-20**  
 Estimator: **TRC / FID**  
 Reviewed: **RL**  
 Wedler Project Number: **A20-0879/A**

FACTOR 1.10  
 WATERWORKS

MMCD	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	ITEM PRICE	COST FACTOR	ITEM PRICE FACTORED	GROUPED PRICES FACTORED	TAXES (5%)	TOTALS C/F TO DEPRECIATION SCHEDULE	PIPE LENGTH RATIO
<b>WATER MAINS DI</b>											
	<i>Imported Backfill 0-2m Depth</i>										
02666	100mm DI	lin.m.	330.0	\$170	\$56,100.00	1.1	\$ 61,710.00				
02666	150mm DI	lin.m.	2693.6	\$180	\$484,848.00	1.1	\$ 533,332.80				
02666	200mm DI	lin.m.	1778.0	\$195	\$346,706.10	1.1	\$ 381,376.71				
02666	250mm DI	lin.m.	683.0	\$220	\$150,260.00	1.1	\$ 165,286.00	\$ 1,141,705.51	\$57,085.28	\$ 1,198,790.79	Ductile Iron 0.82282112
	<b>5484.6</b>										
<b>WATER MAINS PVC</b>											
	<i>Imported Backfill 0-2m Depth</i>										
02666	100mm PVC	lin.m.	271.0	\$170	\$46,070.00	1.1	\$50,677.00				
02666	150mm PVC	lin.m.	910.0	\$180	\$163,800.00	1.1	\$180,180.00	\$230,857.00	\$11,542.85	\$ 242,399.85	PVC 0.17717888
	<b>1181.0</b>										
<b>APPURTENANCES</b>											
<i>Tees</i>											
02666	150mm	each	15.0	\$450	\$6,750.00	1.1	\$ 7,425.00				
02666	200mm	each	9.0	\$720	\$6,480.00	1.1	\$ 7,128.00				
02666	250mm	each	1.0	\$1,400	\$1,400.00	1.1	\$ 1,540.00				
<i>Bends</i>											
02666	100mm	each	11.0	\$295	\$3,245.00	1.1	\$ 3,569.50				
02666	150mm	each	31.0	\$350	\$10,850.00	1.1	\$ 11,935.00				
02666	200mm	each	20.0	\$420	\$8,400.00	1.1	\$ 9,240.00				
02666	250mm	each	4.0	\$590	\$2,360.00	1.1	\$ 2,596.00				
<i>Gate Valves</i>											
02666	100mm	each	9.0	\$650	\$5,850.00	1.1	\$ 6,435.00				
02666	150mm	each	21.0	\$800	\$16,800.00	1.1	\$ 18,480.00				
02666	200mm	each	10.0	\$1,350	\$13,500.00	1.1	\$ 14,850.00				
02666	250mm	each	3.0	\$2,100	\$6,300.00	1.1	\$ 6,930.00				
<i>Crucifixes</i>											
02666	150mm	each	1.0	\$1,050	\$1,050.00	1.1	\$ 1,155.00				
02666	250mm	each	1.0	\$1,700	\$1,700.00	1.1	\$ 1,870.00				
<i>Caps / Blind Flanges</i>											
02666	100mm	each	6.0	\$175	\$1,050.00	1.1	\$ 1,155.00				
<i>Reducers</i>											
02666	150mm - Maximum Dia.	each	5.0	\$240	\$1,200.00	1.1	\$ 1,320.00				
02666	200mm - Maximum Dia.	each	3.0	\$280	\$840.00	1.1	\$ 924.00				
02666	250mm - Maximum Dia.	each	1.0	\$380	\$380.00	1.1	\$ 418.00				
<i>Robar Couplings</i>											
02666	150mm	each	2.0	\$600	\$1,200.00	1.1	\$ 1,320.00	\$ 98,290.50	\$4,914.53	\$ 103,205.03	
<b>BLOW-OFFS, AIR VALVES, BLOW-DOWNS, TEST POINTS</b>											
<i>Blow-offs</i>											
	50mm	each	4.0	\$2,100.00	\$8,400.00	1.1	\$ 9,240.00				
	100mm - Abbotsford City Standards	each	2.0	\$4,750.00	\$9,500.00	1.1	\$ 10,450.00	\$ 19,690.00	\$984.50	\$ 20,674.50	
<i>Air Valves</i>											
02666	75mm c/w Fittings, Vent & MH Chamber	each	1.0	\$15,000	\$15,000.00	1.1	\$ 16,500.00				
	25mm	each	6.0	\$3,200.00	\$19,200.00	1.1	\$ 21,120.00	\$ 37,620.00	\$1,881.00	\$ 39,501.00	
<b>SERVICE CONNECTIONS</b>											
<i>Residential</i>											
	25mm service	each	279.0	\$1,900.00	\$530,100.00	1.1	\$ 583,110.00	\$ 583,110.00	\$29,155.50	\$ 612,265.50	
<b>MISCELLANEOUS</b>											
	Hydrant - c/w new DI lateral and valve	each	24.0	\$5,600.00	\$134,400.00	1.1	\$ 147,840.00				
	Decommission existing hydrant	each	24.0	\$1,200.00	\$28,800.00	1.1	\$ 31,680.00	\$ 179,520.00	\$8,976.00	\$ 188,496.00	
02666	Water Main Testing & Sterilization	lin.m.	6665.6	\$5.00	\$33,327.90	1.1	\$ 36,660.69	\$ 36,660.69	\$1,833.03	\$ 38,493.72	
	PRV Station c/w 150mm PRV & 75mm Bypass	each	8.0	\$110,000	\$880,000.00	1.1	\$ 968,000.00	\$ 968,000.00	\$48,400.00	\$ 1,016,400.00	
02666	Concrete Thrust Blocks	each	127.0	\$300	\$38,100.00	1.1	\$ 41,910.00	\$ 41,910.00	\$2,095.50	\$ 44,005.50	
02666	Suspended Casing 300 dia. W/M c/w SCH40 Casing	lin.m.	15.0	\$150	\$2,250.00	1.1	\$ 2,475.00	\$ 2,475.00	\$123.75	\$ 2,598.75	
<b>DAM &amp; INTAKE WORKS</b>											
<b>Wood Frame</b>											
	Wood Frame Shelter over intake chamber	LS	1.0	\$5,000.00	\$5,000.00	1.1	\$ 5,500.00	\$ 5,500.00	\$275.00	\$ 5,775.00	
<b>Steel</b>											
	Proposed catwalk decking	lin.m	32.4	\$500.00	\$16,200.00	1.1	\$ 17,820.00	\$ 17,820.00	\$891.00	\$ 18,711.00	
<b>Wood Structures - Impoundment</b>											
	Stop logs	ea.	14.0	\$100.00	\$1,400.00	1.1	\$ 1,540.00	\$ 1,540.00	\$77.00	\$ 1,617.00	
<b>Concrete Structures - Impoundment</b>											
	Excavation / rock removal	cu.m.	11.7	\$200.00	\$2,332.80	1.1	\$ 2,566.08				
	Excavation / rock removal - 50% contingency for replacement d/s at wider x-section	cu.m.	5.8	\$200.00	\$1,166.40	1.1	\$ 1,283.04				
	Reinforced Concrete - Frndn	cu.m.	11.7	\$1,225.00	\$14,287.50	1.1	\$ 15,717.24				
	Reinforced Concrete - Main Wall	cu.m.	8.4	\$1,225.00	\$10,290.00	1.1	\$ 11,278.58				
	Reinforced Concrete - Base Slab Below Buttresses	cu.m.	5.7	\$1,225.00	\$6,945.75	1.1	\$ 7,640.33				
	Reinforced Concrete - Buttresses	cu.m.	6.9	\$1,225.00	\$8,467.50	1.1	\$ 9,314.25				
	Reinforced Concrete - Nibs and projections	LS	1.0	\$1,500.00	\$1,500.00	1.1	\$ 1,650.00				
	Reinforced Concrete - 50% contingency for replacement d/s at wider x-section	cu.m.	16.3	\$1,225.00	\$19,987.50	1.1	\$ 21,987.16	\$ 71,460.59	\$3,573.03	\$ 75,033.62	
<b>Intakes</b>											
	Reinforced Concrete - Walls	cu.m.	3.8	\$1,225.00	\$4,655.00	1.1	\$ 5,119.50				
	Reinforced Concrete - Base	cu.m.	0.5	\$1,225.00	\$612.50	1.1	\$ 673.75				
	Screens	LS	1.0	\$2,500.00	\$2,500.00	1.1	\$ 2,750.00	\$ 8,546.95	\$427.35	\$ 8,974.29	
<b>Pipes and Valving</b>											
02666	200mm	each	1.0	\$1,350	\$1,350.00	1.1	\$ 1,485.00				
02666	450mm	each	1.0	\$12,500	\$12,500.00	1.1	\$ 13,750.00				
	Piping	LS	1.0	\$1,000.00	\$1,000.00	1.1	\$ 1,100.00	\$ 16,335.00	\$816.75	\$ 17,151.75	
<b>WATER TREATMENT PLANT</b>											
<b>Site Prep / servicing / ground works</b>											
	Site Prep / servicing / ground works	LS	1.0	\$179,483.44	\$179,483.44	1.1	\$ 197,432.88	\$ 197,432.88	\$9,871.64	\$ 207,304.53	
<b>Wood Frame</b>											
	Building lumber and fit out	LS	1.0	\$53,118.04	\$53,118.04	1.1	\$ 58,430.94	\$ 58,430.94	\$2,921.55	\$ 61,352.49	
<b>Cement Block</b>											
	cement block	LS	1.0	\$9,907.74	\$9,907.74	1.1	\$ 10,899.61	\$ 10,899.61	\$544.98	\$ 11,444.59	
<b>Reinforced Concrete or Brick</b>											
	Reinforced Concrete	LS	1.0	\$179,158.45	\$179,158.45	1.1	\$ 197,075.40	\$ 197,075.40	\$9,853.77	\$ 206,929.16	
<b>Other Miscellaneous Treatment Plant M&amp;E</b>											
	Internal mechanical / electrical	LS	1.0	\$153,411.89	\$153,411.89	1.1	\$ 168,754.18	\$ 168,754.18	\$8,437.71	\$ 177,191.89	
<b>Water Treatment</b>											
	Water purification	LS	1.0	\$286,748.92	\$286,748.92	1.1	\$ 315,424.91	\$ 315,424.91	\$15,771.25	\$ 331,196.16	
<b>BALANCING RESERVOIR</b>											
<b>Distribution Reservoirs</b>											
	Excavation only	cu.m.	700.0	\$8.00	\$5,600.00	1.1	\$ 6,160.00				
02224	Waste Material - Disposal Off-Site, maximum 10 km Haul	cu.m.	700.0	\$10.00	\$7,000.00	1.1	\$ 7,700.00				
02224	Imported Embankment Fill (Gran Fill up to SG Elev)	cu.m.	35.0	\$35.00	\$1,225.00	1.1	\$ 1,347.50				
	Subgrade Preparation	sq.m.	100.0	\$1.40	\$140.00	1.1	\$ 154.00				
	Reinforced Concrete Base	cu.m.	3.5	\$1,225.00	\$4,287.50	1.1	\$ 4,716.25				
	Steel above Ground - sides	sq.m.	183.3	\$302.00	\$55,356.60	1.1	\$ 60,886.20				
	Steel above Ground - base	sq.m.	49.3	\$302.00	\$14,878.09	1.1	\$ 16,365.90				
	Steel above Ground - roof	sq.m.	51.7	\$302.00	\$15,621.99	1.1	\$ 17,184.19				
	Insulation / Cladding @ \$21/m2 + \$129/m2	sq.m.	235.0	\$150.00	\$35,251.53	1.1	\$ 38,776.69	\$ 153,290.74	\$7,664.54	\$ 160,955.27	
<b>Valve Chamber</b>											
02666	150mm bends	each	3.0	\$350	\$1,050.00	1.1	\$ 1,155.00				
02666	150mm gate valves	each	3.0	\$800	\$2,400.00	1.1	\$ 2,640.00				
	150mm check valves	each	1.0	\$1,450	\$1,450.00	1.1	\$ 1,595.00				
02666	150mm tees	each	2.0	\$450	\$900.00	1.1	\$ 990.00				
	Pipes / fittings misc.	LS	1.0	\$3,000.00	\$3,000.00	1.1	\$ 3,300.00				
	Reinforced Concrete	cu.m.	5.8	\$1,225	\$7,115.00	1.1	\$ 7,828.30				
02725	1350 mm manhole top and risers	each	1.0	\$4,000	\$4,000.00	1.1	\$ 4,400.00	\$ 21,908.30	\$1,095.42	\$ 23,003.72	
<b>Reservoir Drainage</b>											
02731	0 - 2 m perforated drain tile - 100mm dia.	lin.m.	30.0	\$180.00	\$5,400.00	1.1	\$ 5,940.00				
02721	0 - 2 m reservoir drainline solid pipe - 150mm dia.	lin.m.	20.0	\$140.00	\$2,800.00	1.1	\$ 3,080.00				
02666	150mm gate valve and box on drain line	each	1.0	\$800	\$800.00	1.1	\$ 880.00	\$ 9,900.00	\$495.00	\$ 10,395.00	
<b>TOTAL WATER WORKS</b>											
				\$4,176,507.46			\$4,594,158.20	\$4,594,158.20	\$229,707.91	\$4,823,866.11	
<b>TOTAL WATER WORKS w/ ADJUSTMENT FACTOR</b>							\$ 4,594,158.20				

**ASSUMPTIONS AND NOTES:**

- Replacement works cost estimate based exclusively on quantity take off of existing assets as represented by drawings, photographs, measurements and cost data provided by Owner
- Watermain and service installation includes all surface restoration per MMCD Section 31 23 01 - Sub-section 3.6, except asphalt pavement restoration.
- All roads are assumed to be gravel surfaced and restored after trenching and backfilling to match existing.
- Replacement distribution system alignment assumed to be installed parallel to existing to maintain continuity of service while new system is installed.
- Existing obsolete pipework and structures generally assumed to be abandoned in place, except that existing hydrants would be decommissioned and removed.
- Replacement works for intake, dam, balancing reservoir and treatment works assumed to be directly adjacent to existing sites having equivalent grading and servicing as the existing facilities.
- All works are assumed to be accessible by machine; no allowance has been made for handworking.
- It is assumed that curved alignments indicate deflected pipe (as noted on DWG. 20.07, Sheet 3 of 3, "Pipe curvature to have a radius not less than 65m") and angles indicate bends.
- No rock removal is allowed for except at foundation of replacement dam.
- Waterworks on condominium property included.
- It is assumed all water services to individual lots are to be upgraded to FVRD Bylaw Requirements.
- Cost estimates for hydrants, blow-offs, air valves and the like are assumed to include ancillary appurtenances such as valves, bends, etc.
- Unit price for hydrants includes hydrant assembly, lateral connection from watermain and valve per MMCD standard drawing W4.
- Water Treatment Plant Replacement costs based on 2014-2016 receipt records provided by owner for the construction of the existing plant.
- Price adjustment Factor of 1.1 applied due to the following:
  - Water Treatment Plant Replacement costs have been factored up by 1.1 to allow for approximate compound inflation since construction during 2014 to 2016.
  - Elsewhere unit rates are current for the Fraser Valley; the 1.1 adjustment factor has been applied due to travel and freight haul distance and time from centers of population and industry.
- No allowances have been made for system upgrades to address existing operational or capacity deficiencies or to comply with regulatory requirements, professional guidance or current bylaws, except:
  - Steel safety walkway allowed for on replacement dam at intake works.
  - Individual 25mm residential services allowed to single family lots.
- No allowance has been made for environmental mitigation works.