

**NOVA SCOTIA UTILITY AND REVIEW BOARD**

**IN THE MATTER OF THE PUBLIC UTILITIES ACT**

- and -

**IN THE MATTER OF AN APPLICATION** of the **MUNICIPALITY OF THE COUNTY OF CUMBERLAND**, on behalf of the three existing water utilities (Parrsboro, Pugwash and Springhill) to amalgamate the three utilities into one utility named the Cumberland County Water Utility and to apply for an Order authorizing and approving a new Schedule of Rates and Charges for Water and Water Services and a Schedule of Rules and Regulations

**BEFORE:** Richard J. Melanson, LL.B., Panel Chair  
Bruce H. Fisher, MPA, CPA, CMA, Member  
Julia E. Clark, LL.B., Member

**APPLICANT:** **MUNICIPALITY OF THE COUNTY OF CUMBERLAND**  
Gerry Isenor  
G.A. Isenor Consulting Limited

Blaine Rooney  
Blaine S. Rooney Consulting Limited

Gregory Herrett  
Chief Administrative Officer

Deanna Pike  
Acting Director of Finance

Justin Waugh-Cress  
Director of Engineering and Operations

**HEARING DATE:** December 2, 2022

**DECISION DATE:** February 23, 2023

**DECISION:** **Amalgamation of the Parrsboro, Pugwash and Springhill Water Utilities into one utility named the Cumberland County Water Utility, approved.**

**Schedule of Rates and Charges and Schedule of Rules and Regulations, approved as amended, by the utility.**

## I SUMMARY

[1] The Municipality of the County of Cumberland (Municipality, Applicant) applied to the Nova Scotia Utility and Review Board (Board) on behalf of its three existing water utilities consisting of: Parrsboro Water Utility (Parrsboro Utility); Pugwash Water Utility (Pugwash Utility); and Springhill Water Utility (Springhill Utility). The application proposed to amalgamate the three utilities into one utility named the Cumberland County Water Utility, and to harmonize the existing rates, rules and regulations of the three utilities in a proposed new Schedule of Rates for Water and Water Services and Schedule of Rules and Regulations. The application is pursuant to the *Public Utilities Act*, R.S.N.S. 1989, c. 380 as amended (*Act*). The existing Schedule of Rates for Water and Water Services and Schedule of Rules and Regulations have been in effect since April 1, 2018 and April 1, 2017 (Parrsboro Utility); April 1, 2019 and April 1, 2018 (Pugwash Utility); and April 1, 2017 and July 1, 2015 (Springhill Utility).

[2] A rate study dated July 22, 2022 (Rate Study) was prepared by G.A. Isenor Consulting Limited, in association with Blaine S. Rooney Consulting Limited, and was submitted to the Board on July 29, 2022, with the application. Information Requests (IRs) were issued by Board staff on September 22, 2022. In response to the IRs, the Applicant filed a revised Rate Study on October 14, 2022 (Revised Rate Study). The Revised Rate Study included an amendment to the depreciation rate for the proposed capital addition of a generator in 2022/23 and the inclusion of capital additions in 2021/22 that were omitted in error. These changes in the Revised Rate Study have a minimal impact on rates proposed in the Rate Study. Further changes listed in Undertaking U-3 lead to

additional revisions, hence a third rate study filed in response to the Undertakings (Amended Rate Study).

[3] The application proposed rates for the fiscal years 2023/24, 2024/25, and 2025/26 (test years, test period), which are standardized for the amalgamated utility.

[4] The three existing utilities currently have different rates and varying levels of customer metering. The Parrsboro Utility's current rate structure is based upon 65 separate tap count rates, with no metered rates in place. The Springhill Utility has a few metered customers, with most residential customers unmetered. The Pugwash Utility is fully metered, with meter consumption data available for all customer classes. These variations make it difficult to present an accurate comparison of proposed rate impacts on existing customers of the three utilities in the first test year, when rates are standardized.

[5] Since the last Parrsboro Utility rate application, meters have been installed and a year of consumption data has been recorded, which was used to prepare the current rate study. The application is based upon eliminating the current tap count rates and billing the customers served by Parrsboro Utility according to their meter size and recorded consumption, beginning in the first test year, 2023/24.

[6] The application proposes that meters will be installed in the Springhill Utility in 2023/24, hence there will be no unmetered customers. The application is based upon unmetered, residential annual consumption of  $252\text{m}^3$  per customer in the first test year, and annual water consumption for the newly metered residential Springhill Utility customers of  $160\text{m}^3$  and  $140\text{m}^3$ , respectively, in each of the second and third test years.

An unmetered rate is proposed for all test years, based upon an annual consumption of 252m<sup>3</sup> per customer.

[7] In the first test year, the proposed percentage rate changes in average quarterly water bills for the various unmetered/metered customers in the Springhill and Pugwash Utilities were presented and compared. As the current rates for the Parrsboro Utility are not based upon meter sizes, a comparison of current to proposed quarterly water bills in 2023/24 is not available. The Applicant suggested it appears from the tap count data that the Parrsboro Utility customers would see a smaller increase in 2023/24 than the other two utilities. However, given the change in rate structure for the Parrsboro Utility, the Applicant added it is not possible to accurately determine the impact of the proposed rate changes in the first test year.

[8] For the Pugwash Utility, based upon average quarterly consumption for a 5/8" meter customer, a rate increase of 18.6% in 2023/24 is proposed in the Revised Rate Study. For all other metered customers, based upon the average quarterly consumption of each meter size, the proposed rate increases in the Revised Rate Study are between 13.2% and 34.2% in 2023/24.

[9] For the current Springhill unmetered residential customers, based upon quarterly consumption of 63m<sup>3</sup> per customer, a rate increase of 10.8% is proposed in 2023/24. Based upon average consumption for a 5/8" meter customer, a rate increase of 9.2% is proposed. For all other metered customers, based upon the average quarterly consumption of each meter size, the proposed rate increases are between 11.7% and 42.6% in 2023/24.

[10] In the Revised Rate Study, unmetered rates for the amalgamated utility are proposed to increase by 21.4% in 2024/25 and 9.2% in 2025/26. Although the amalgamated utility is projected to be fully metered by 2024/25, the Applicant included unmetered rates in the application for the transition to metering in Springhill and for situations that may arise where metering is not possible due to exposure to freezing. The rates for a 5/8" meter customer, based upon average quarterly consumption, are proposed to increase by 28.1% in 2024/25 and 3.0% in 2025/26. For all other metered customers, based upon the average quarterly consumption of each meter size, the proposed rate increases are 16.5% to 25.3% in 2024/25; and 5.4% to 12.0% in 2025/26.

[11] The application also proposes an increase to bulk water rates. Currently only the Springhill Utility has a bulk water rate for water provided by the fire department or a hydrant. The current bulk water rate in the Revised Rate Study is proposed to increase from \$3.62 per m<sup>3</sup> to \$4.71 per m<sup>3</sup> in 2023/24, \$6.34 per m<sup>3</sup> in 2024/25 and \$7.11 per m<sup>3</sup> in 2025/26.

[12] The application also proposes amendments to the annual public fire protection charge to be paid to the utility by the Municipality for the provision of water for fire protection service. The Pugwash Utility does not provide public fire protection and there is no proposal to provide public fire service in the test years. The total combined annual public fire protection charges currently paid to the Springhill and Parrsboro Utilities is \$596,951. In the Revised Rate Study, the annual public fire protection charge is proposed to increase by 0.7%, 13.6% and 9.3%, respectively in each of 2023/24, 2024/25 and 2025/26.

[13] The public hearing of the matter was held by videoconference on December 2, 2022, after public notice in accordance with the Board's rules. The utility was represented by Gerry A. Isenor, of G.A. Isenor Consulting Limited, and Blaine S. Rooney, of Blaine S. Rooney Consulting Limited. The utility was also represented by Municipal staff: Gregory Herrett, Chief Administrative Officer; Deana Pike, Acting Director of Finance; and Justin Waugh-Cress, Director of Engineering and Operations.

[14] There were no formal intervenors in the proceeding and no requests to speak. The Board did not receive any letters of comment.

[15] In response to Undertaking U-3 received December 13, 2022, the Applicant filed further revisions to the Revised Rate Study, leading to the Amended Rate Study. The projected 2021/22 depreciation expense was replaced with the actual depreciation expense from the audited financial statements of the three current utilities. This 2021/22 amount became the basis for the additional depreciation expense associated with budgeted capital additions in 2022/23 and in each of the test years. The IR responses identified a distribution system replacement capital project that was budgeted in 2022/23 in the original Rate Study. It will be rescheduled for a future year. The Rate Study filed in response to Undertaking U-3 adjusted the timing of the proposed capital works associated with the Parrisboro distribution system. These amendments resulted in slight decreases to the rates proposed for customers and the proposed public fire protection rates, in each of the test years, from those proposed in the Revised Rate Study.

[16] The Board approves the proposed amalgamation of the Springhill, Pugwash, and Parrisboro Utilities to form the Cumberland County Water Utility as requested by the Applicant.

[17] The Schedule of Rates are approved, as amended, as requested by the Applicant in response to the Undertakings.

[18] The Schedule of Rules and Regulations are approved, as amended, and requested by the Applicant.

## **II INTRODUCTION**

[19] Prior to 2015, the Municipality did not own or operate any public water utilities regulated by the Board. The Parrisboro Utility was operated by the Town of Parrisboro, and the Springhill Water Utility was operated by the Town of Springhill. These stand-alone utilities were taken over by the Municipality when the towns were dissolved in 2015. The Pugwash Utility was developed by the Municipality and commissioned in 2019/20.

[20] The Parrisboro Utility was developed in the late 1800's. Its source of supply is from three production wells located north of the community. The water treatment process consists of pH adjustment and chlorination. The treated water is pumped to an earthen reservoir with a floating cover, with a capacity of approximately 750,000 gallons. The distribution system consists of cast iron, ductile iron, and PVC mains, ranging in size from 2" to 14" in diameter. The Parrisboro Utility has approximately 721 metered customers, of which 707 customers are residential. As noted above, these customers are currently being billed based upon a tap rate structure, which is proposed to be replaced with metered rates in the application.

[21] The Pugwash Utility is a new water utility that was developed by the Municipality in consultation with the community, because of water quality issues with



private wells. The Municipality applied to the Board in 2017 for an Order approving the service territory of the new utility, and approval of an interim schedule of rates, charges, rules, and regulations. The Pugwash Utility's source of supply is a wellfield, consisting of three production wells, located about 8 km from Pugwash. Water from the wells is disinfected and treated for iron; and has any manganese removed. The treated water is fed to a reservoir where it is gravity fed through the transmission and distribution system to the service area. At the time of the 2017 application to the Board, it was projected that the new utility would serve 331 out of an available 386 customers, by 2019/20. Due to commissioning issues, the Pugwash Utility was not operational until late 2019/20, with no customers billed until the following year. The Pugwash Utility currently has 193 metered customers, of which 188 customers are residential.

[22] The Springhill Utility was developed in the late 1800s. It has a surface water source of supply from the Leamington Brook Watershed. The raw water is treated and chlorinated at the Dissolved Air Flootation Water Treatment Plant before being pumped approximately 6 km to a concrete water storage tank, with a capacity of 2 million gallons. Water is then distributed to consumers through two separate distribution systems, either from the storage tank or the treatment plant. An upgraded pressure zone serving approximately one-third of the Springhill Utility customers was created in 2000/01. The Springhill Utility has approximately 1,553 customers, consisting of 1,502 unmetered residential customers and 51 metered commercial customers.

[23] The amount of non-revenue water in each of the Parrsboro and Pugwash systems is estimated to be approximately 50% to 55%; and 30%, respectively, of the total production volume in each utility. As most customers in the Springhill Utility are currently



unmetered, the non-revenue water cannot be calculated; however, the Applicant suggested that, based on the age of the system, the figure would most likely be in the 50% range. The magnitude of non-revenue water in each of the Parrsboro and Springhill systems is mainly due to leaks in the approximately 130-year-old pipes. The Pugwash Utility has few customers and many dead-end mains, which causes stagnant water. The amount of non-revenue water for Pugwash, which is high for a new system, is due mainly to flushing of dead-end mains to maintain the necessary chlorine residual.

[24] The budgets in the application include costs associated with engaging leak detection contractors to identify leaks, which is done on a regular basis in Parrsboro and Springhill. In addition, water consumption data obtained through universal metering in both the Parrsboro and Springhill Utilities will provide useful information to assist in the reduction of non-revenue water in these two systems. The budgets include the procurement of auto flushers for Pugwash that will reduce the amount of water that is currently being used on a manual basis to maintain chlorine residuals on the dead-end mains.

[25] The Applicant confirmed that the proposed amalgamated utility will serve only the areas which are currently served by the existing three utilities, with no plans to expand the services.

[26] It is projected in the application that the utility will have an annual increase of ten residential customers in each of the test years. All the expected growth is associated with the Pugwash Utility.

[27] The application was presented to the Board based upon the need for rate adjustments to provide funds for projected operating cost increases and necessary capital

improvements. It further provides for standardized rates, rules, and regulations, with the proposed amalgamation of the three existing utilities to form the Cumberland County Water Utility.

### **III AMALGAMATION OF THE PARRSBORO, PUGWASH AND SPRINGHILL WATER UTILITIES**

[28] The Applicant explained the rationale for the proposed amalgamation of the Parrsboro, Pugwash and Springhill Utilities, which are all operated by the Municipality. It noted that as the three utilities are currently separate entities, they each have their own set of rates, rules, and regulations, which can create confusion for both Municipal staff and the utilities' customers. The proposed amalgamation will provide standardization of the services and rates for all water utility customers that are served by the Municipality. It will further provide one set of rules and regulations for all customers, which will aid in the administration of the system.

[29] As noted, the lack of meters in Springhill and the change in rate structure proposed for Parrsboro, means a lack of certainty in the magnitude of the proposed rate impacts in the first test year for the customers of these utilities. This makes it difficult to compare proposed rate increases among the three utilities. However, given that the utilities have differing rates coming into the proposed amalgamation, there will be differences in the increases for the customers of each of the three utilities in the first test year. The Applicant explained that amalgamations of separate utilities can sometimes result in one-time adjustments in rates, meaning some customers pay more, while others pay less. When the utilities are combined, the capital and operating budgets and rate adjustments will be based upon one utility and one rate structure.

[30] The separate financial statements for each of the three utilities for 2021/22, were filed with the Board prior to the public hearing. The statements indicate that as of that date, the Parrisboro Utility and the Springhill Utility had accumulated operating surpluses of \$500,969 and \$2,356,005, respectively. Due to delays in commissioning, and a lower than projected number of customers, the Pugwash Utility had an accumulated operating deficit of \$503,885 for 2021/22. Given the differences among the three utilities, the Board questioned the Applicant on the sustainability of each of the three systems if the amalgamation did not occur. In response to Undertaking U-1, the Applicant provided a copy of a report to Municipal Council, dated July 15, 2022 (Report), prepared by Gerry Isenor and Blaine Rooney that provided information on each of the three separate utilities and the proposed amalgamation.

[31] The Report outlined significant required capital investments in the upcoming years for watermains, service laterals, and the upgrade or replacement of the reservoir, for the 130 plus year old Parrisboro system. It projected that, based upon the age and condition of the Parrisboro Utility's infrastructure, funding the necessary capital improvements will deplete its depreciation fund in 2023/24, and borrowing will be required. This will result in increased rates over the next 10 years. The Report projected average residential quarterly rates for a stand-alone Parrisboro Utility for each of the three test years of the application. In 2025/26, the final test year, this rate is projected at \$124.84, compared with approximately \$155 rate proposed in the application for the amalgamated utility. The Report noted that the total estimated capital expenditures for a stand-alone Parrisboro Utility, in addition to those included in the application and the

estimated rate above, is \$10,000,000 between 2026/27 and 2032/33, or approximately \$1,430,000 per year, beyond the test years in the application.

[32] With respect to the Springhill Utility, the Report noted that, while it currently has an operating surplus and a reasonable depreciation fund balance, given its age it needs significant capital improvements in the next few years. The Report described the need to replace aging infrastructure relating to watermains, water services and the reservoir, and upgrades to the water treatment plant. The Report projected average residential quarterly rates for a stand-alone Springhill Utility for each of the three test years of the application. Two scenarios were outlined: proceeding with fully metering the Springhill Utility and keeping residential customers unmetered. In 2025/26, the final test year, the unmetered rate is projected at \$158.83, and the projected metered rate is \$146.74. Conversely, a rate of approximately \$155 is proposed in the application for the amalgamated utility, with Springhill metered. The Report noted that the water treatment plant upgrades and the reservoir replacement have a combined total estimated cost of \$6,000,000 over the next four to seven years. In addition to funds included in the two scenarios and the application, there is an additional \$11,000,000 in estimated expenditures for a stand-alone Springhill Utility.

[33] The Pugwash Utility's current rates were approved by the Board in 2018, based upon phasing-in its depreciation expense over time. The assumption was that the number of customers would significantly increase. The lower-than-expected number of customers has resulted in annual operating losses every year since the commissioning of the utility. The Report stated that because of this, water rates for the Pugwash Utility will need to significantly increase to pay off the accumulated deficit, fully fund the

depreciation rate, and cover future increases in operating costs. As a stand-alone Pugwash Utility, the Report calculates the estimated average residential quarterly rates in each of the test years as \$312.21, \$414.18, and \$507.06, respectively. These would be the highest water rates regulated by the Board in the Province.

[34] The Report noted that because the Pugwash Utility is new, it is expected to have minimal capital expenditures in the next 10 to 15 years, resulting in significant increases in its depreciation fund balance. If the three existing utilities are amalgamated, depreciation funds from the Pugwash Utility, of approximately \$300,000 per year, could be used to aid in funding the necessary infrastructure upgrades in the Parrsboro and Springhill areas. This would reduce the required debt funding in each of the Parrsboro and Springhill Utilities, resulting in lowering revenue requirements and rates.

[35] Mr. Isenor summarized the situation during the hearing:

So one -- two of them need a lot of money, and they're sitting flush right now but they're going to run out of money shortly. The other one is short of money, but it's got great potential to earn depreciation that it doesn't need for the first few years. It will need them in 10 to -- oh, probably 15 to 20 years from now it'll start eating into the depreciation fund over there.

[Transcript pp. 65-66]

[36] The Municipality further noted that it has received little feedback on the proposed amalgamation and rates.

### **Findings**

[37] The Board understands that the amalgamation of utilities often results in varying degrees of rate impacts among those utilities. In this case, it is difficult to accurately assess the impacts, given the different levels of metering. However, it is clear that rate increases will be significant and will also vary among the three existing utilities.

[38] This matter has some unique characteristics in that one utility has residential meters in place providing some basis for consumption data. However, its

current rates are based upon estimations using tap rates. One utility currently has an unmetered rate using an assumed consumption level but plans to meter during the test years. The third utility, which is significantly smaller than the others, is fully metered. However, it has not reached its expected level of customer connections. All these factors add some level of uncertainty and risk to the projections. They also add uncertainty about the revenue which the proposed amalgamated utility will receive.

[39] At first glance, because two of the utilities are in an operating surplus position (Parrsboro and Springhill), and one utility has an operating deficit (Pugwash), it may appear that the Pugwash Utility is benefitting from the amalgamation at the expense of the other utilities. However, a review of the impact of the proposed amalgamation on the three current utilities needs to also look beyond the test years. With an amalgamated utility, the growing depreciation fund of the newer Pugwash Utility can provide a source of funds for the necessary capital improvements of ageing infrastructure in Parrsboro and Springhill. Additionally, the proposed amalgamation mitigates the substantial rate pressure which currently exists with the Pugwash Utility. There are trade-offs, but on balance, the evidence shows there are benefits of amalgamation for each of the existing three utilities.

[40] The Municipality further indicated that the proposed amalgamation would aid in its goal of ensuring that its water utility customers, regardless of their location in the Municipality, will pay the same rate for the same services. The Board is satisfied that, in addition to the financial impacts discussed previously, the proposed amalgamation should reduce customer confusion over varying water rates throughout the Municipality. The

proposed amalgamation should further help in the administration of the Municipality's water system through the standardization of rates, rules, and regulations.

[41] The Board notes that it received no comments from customers with respect to the proposed amalgamation and rate increases.

[42] The Board therefore approves the amalgamation, as proposed by the Applicant, to form the Cumberland County Water Utility. Assumptions were made on the level of consumption volumes, including changes to consumption with billing on metered rates, rather than tap count rates. As such, the Board expects the utility will closely monitor its financial health, with a view to preparing a timely future rate application, if necessary.

#### **IV REVENUE REQUIREMENTS**

##### **a) Operating Expenditures**

[43] The operating expenses of the proposed amalgamated utility contained in the application are the combined expenses of the three existing utilities. The Revised Rate Study contains projected (2021/22), budgeted (2022/23) and projected (test years) expenses for the amalgamated utility. At the time of preparing the Revised Rate Study, the 2021/22 financial statements were not finalized. The Applicant noted that based upon a preliminary review, there should not be a significant change from the projections for 2021/22 shown in the Revised Rate Study.

[44] The 2021/22 financial statements were filed prior to the public hearing, and an Amended Rate Study was filed in response to the Undertakings. Based upon the actual 2021/22 results, the only change to the projected operating expenses during the



test years was lowering the annual depreciation expense. All the other projected operating expenses remain at the amounts originally projected.

[45] In 2021/22, the combined utility had an excess of revenues over expenditures of \$64,484, and an accumulated operating surplus balance of \$2,353,090. With the correction to the annual depreciation expense as contained in the Revised Rate Study, it is projected that at current rates, expenditures will increasingly exceed revenues, resulting in an accumulated operating surplus for the amalgamated utility of \$889,067 in 2022/23.

[46] The Applicant explained that there are no projected operational efficiencies from amalgamation in the test years. The three existing systems are not interconnected and are not changing. The same financial structure will be maintained for management purposes. Reduced operational expenses are not the basis for the application.

[47] The Applicant provided explanations for variations in several operating expense line items between 2021/22 and 2022/23. These are partly due to increased expenses associated with the addition of a full-time employee for the Springhill Water Treatment Plant, and changes made after a review of cost allocations. During the hearing, Mr. Herrett noted the Municipality's limited experience with operating water utilities since 2015. He stated that relying on budgeted figures from the last three or four years would be risky. Mr. Waugh-Cress explained that the Municipality has tried to understand how costs are being allocated to the utilities and tries to ensure that the allocations are current and consistent.

[48] The Applicant described the increases in the Transmission and Distribution Operations expenses. They relate to several items, including: a revision in employee

wage allocations to more accurately reflect hours worked; costs associated with unidirectional flushing and leak detection to aid in the reduction of non-revenue water; and costs related to lead lateral identification. The Applicant further explained that in 2022/23, after a review of cost allocations, it was decided to add a portion of Council Honorariums as a new annual expense line item under Administration.

[49] The Applicant explained that in the first test year some expenses are increasing more than 3%, while others are decreasing, based upon known or projected changes. In the final two test years operating expenses are generally budgeted to increase by 3% annually, with the 3% figure representing an average for all expenses.

[50] The Applicant described its on-going budgeting process. A budget is prepared by staff and submitted to Council for review and approval. Once the budget is reviewed, it is monitored throughout the year for any variations.

[51] The Applicant noted that the allocation costs between the Municipality and the amalgamated utility will continue in a similar way as is done currently with the individual utilities. Direct costs are allocated to each utility based on usage, and indirect costs are allocated based upon percentages or customer base. The Applicant explained that some costs will be allocated to the amalgamated utility. Other costs will continue to be allocated to individual operations for management purposes.

[52] The Applicant provided a percentage breakdown of Municipal employees currently assigned to the three utilities. Further detail was provided in response to Undertaking U-2 on the percentages and dollar amounts of Municipal staff and Council (Honorariums) that are allocated to the utility for the 2022/23 projections in the Rate

Study. The Applicant further noted that the amounts for the test years are based upon the amounts in the Undertaking response plus a 3% annual increase.

[53] The depreciation expense projected in each of the test years is based upon the depreciation associated with the capital additions, at rates set out in the *Water Utility Accounting and Reporting Handbook (Accounting Handbook)*. For the proposed capital additions that are not specifically identified in the *Accounting Handbook*, the Applicant provided information in support of the rates used in the Rate Study. The application proposes to delay expensing the depreciation associated with the cost of the 2023/24 meter installation in Springhill until the following year. Mr. Isenor explained that this delay is proposed for rate design purposes, as 2023/24 is the first test year after amalgamation, and it was decided:

...not to have anything more piled up on top of that year.

[Transcript, p. 100]

[54] The depreciation rate for the generator, contained in the 2022/23 capital budget was corrected to 5% from 20% in the Revised Rate Study. The Revised Rate Study also included capital additions of \$262,197 in 2021/22, and the associated depreciation, that were omitted in error in the original Rate Study.

[55] In the previous rate application for the new Pugwash Utility, the Board approved the proposed deferral of depreciation of the plant in service. The annual depreciation expense on the assets was calculated as \$328,098, but only \$38,991 is currently being expensed annually. The application proposes to phase-in the remaining \$289,099 in equal additions of \$96,366 over each of the three test years. This will bring the Pugwash Utility's annual depreciation to its full annual amount of \$328,098.

[56] As noted previously, the utility filed an Amended Rate Study in response to the Undertakings that used the actual depreciation expense in 2021/22 as a basis for the projected depreciation expense in the test years. The Amended Rate Study filed in response to the Undertakings also changed the timing and magnitude of some proposed capital expenditures, discussed later. This resulted in a decrease in the annual depreciation expense in each of the test years.

### **Findings**

[57] The Applicant has done a review of cost allocations for the utility, resulting in changes that it believes to be more accurate than past practices. Explanations were provided for the estimated increases in operating expenses between 2021/22 and 2022/23, which the Board accepts. The operating expenses over the test years are generally based upon an annual increase of approximately 3%, which the Board finds to be reasonable, and accepts.

[58] Included in the operating expenses are costs related to leak detection and flushing to aid in the reduction of non-revenue water. The Board encourages the utility to continue with these efforts to aid in more efficiently operating the water system.

[59] The Board accepts the allocation of costs between the Municipality and the amalgamated utility, which is not expected to differ significantly from the current practice. The Board reminds the Applicant to review these allocations on a periodic basis to help ensure accuracy.

[60] The Application proposes continuing the phase-in of the deferred annual depreciation expense associated with the Pugwash Utility over the test years. This will bring the annual depreciation expense to its full amount, to be added to the depreciation

fund balance. The additional depreciation can be used for funding necessary capital improvements for the aging infrastructure of the Parrsboro and Springhill Utilities. The Board approves the phase-in as proposed. The Board further approves the proposed one-year delay, to 2024/25, in depreciating the cost of meters.

[61] The utility corrected the annual depreciation expense in the Revised Rate Study and in the response to the Undertakings. The rate study filed with the Undertakings uses the most current information as a basis for the projected depreciation. It includes the correction to the depreciation expense from the Revised Rate Study, and further amends the annual depreciation due to changes in timing of budgeted capital projects. These changes result in a decrease in the annual depreciation expense in each of the test years of \$23,615, \$13,940, and \$11,205, respectively, from the amounts in the Revised Rate Study.

[62] The depreciation rates used in the amendments contained in the Undertaking response follow the *Accounting Handbook* guidelines. The Board accepts the annual depreciation expense in each of the test years as budgeted in the Amended Rate Study filed in response to the Undertakings.

**b) Capital Budget and Funding**

[63] The Revised Rate Study shows the amalgamated utility's 2021/22 projected capital projects, totalling \$262,197, which were omitted from the original Rate Study. The Amended Rate Study, filed in response to Undertaking U-3, used the actual depreciation expense amount for 2021/22 from the financial statements and did not include the 2021/22 capital budget. The Revised Rate Study also includes the amalgamated utility's 2022/23 capital budget, totalling \$1,392,248. The Applicant noted that the 2022/23

budget includes a distribution main replacement project in the amount of \$795,248, which will be rescheduled for a future year. This project was removed from the 2022/23 capital budget in the rate study filed in the Undertaking response.

[64] The capital budgets for each of the test years are included in the Revised Rate Study. All the capital work budgeted in the test years is associated with the Springhill and Parrsboro Utilities, with no capital projects associated with the Pugwash Utility in the test years. The Revised Rate Study includes capital projects totalling \$4,818,670 in 2023/24, \$1,663,547 in 2024/25 and \$1,457,957 in 2025/26. The projects in 2023/24 include a Pump (\$16,000), Services (\$40,000), Meters (\$850,000) and Distribution Mains (\$3,912,670). The projects in 2024/25 include Services (\$40,000) and Distribution Mains (\$1,623,547). In 2025/26, the capital budget in the Revised Rate Study includes Services (\$40,000), Purification Equipment (\$250,000) and Distribution Mains (\$1,167,957).

[65] The Applicant provided further details on the major projects included in the capital budgets in each of the test years. The distribution main projects in each of the test years relate to various projects in Springhill, and years two, three and four, of a watermain replacement project in Parrsboro. The capital item identified as Services, in the amount of \$40,000 in each of the test years, relates solely to the replacement of lead service lines. The Applicant noted that both the Parrsboro and Springhill Utilities have lead service lines, with about 10% of the service laterals in Parrsboro and 20% of the services laterals in Springhill estimated to be lead. The lead service line replacements are expected to be done in conjunction with street/utility work in the area, with work continuing beyond the test years. Mr. Isenor noted that there are approximately 350 to 500 lead service laterals, in total, in the Parrsboro and Springhill water systems. The

budgeted annual \$40,000 amount would probably cover the cost to replace eight to ten of these laterals. Eliminating them will take some time.

[66] The 2023/24 capital budget includes an amount of \$850,000 for the installation and replacement of meters in Springhill. The response to IRs broke down the cost to include the installation of 1,502 5/8" meters (\$662,382), the replacement of 51 mainly larger size meters (\$70,273) and software and contingencies (\$117,345). Mr. Waugh-Cress explained the metering program will be done by contractors. Based upon experience with metering in each of Parrsboro and Pugwash, completion of the metering program in Springhill will probably take three to four months.

[67] Mr. Herrett noted that the Municipality's normal budgeting philosophy is to minimize debt. No new debt is projected in the test years to fund the capital budgets, with funding proposed to come from outside sources and depreciation. In the Revised Rate Study, the depreciation funding in each of the test years is \$1,953,181, \$1,206,300, and \$1,151,469, respectively. Outside funding is forecast at \$2,865,489, \$457,247, and \$306,488, respectively, in each of the test years. With this projected use of depreciation funds, based upon the assumptions of the Revised Rate Study, the depreciation fund balance will decrease from \$2.2 million at the beginning of 2023/24 to \$223,081 at the end of the 2025/26.

[68] The Board questioned the utility about the risk of depleting the depreciation fund balance to that level. Mr. Isenor noted that it should not present a risk, as the amalgamated utility will be annually contributing about \$900,000 to the depreciation fund balance. He added that generally, in preparing rate applications, he attempts to have the depreciation fund balance at a level where pumping equipment, or a treatment plant part,



can be purchased. He said this can be done with the projected balance in the application. He concluded that the \$223,081 balance is reasonable from a rate-making point of view.

[69] The Applicant explained that the budgeted outside funding source for the water distribution projects in each of the test years is the Investing in Canada Infrastructure Program (ICIP). No formal response on that funding has been received to date. Mr. Herrett noted that if external funding is not received, the utility will have to re-evaluate priorities, as the scope of some of the budgeted capital projects are so significant that they could not be completed without government funding assistance.

[70] The Board questioned approving rates that are contingent upon the receipt of government funding. Mr. Herrett responded that given the age and condition of the infrastructure in both Parrsboro and Springhill, if a surplus occurred due to a change in the projected capital program, there would be no shortage of projects to spend the surplus on, so there is next to no risk of overcharging customers in the next five-to-ten-year window.

[71] In addition to delaying the distribution main project in 2022/23 to future years, and using the actual 2021/22 depreciation expense, the Amended Rate Study filed in response to the Undertaking U-3 revised the amount and timing of the distribution main projects. The response stated:

The attached revised rate study includes information from the 2021/22 Financial Statements on B-1 and B-3 and as the starting point for fiscal year 2022/23. Capital budget has been adjusted by staff by moving proposed capital works related to the Parrsboro distribution system forward one year. The proposed capital works in the Parrsboro distribution system for the final test year (2025/26) included in the rate study presented at the hearing will be moved to a future year.

[Exhibit C-5, Response to Undertaking U-3]

[72] In the Amended Rate Study, the total amount of budgeted capital projects in the test years has increased from \$7,940,1784 (Revised Rate Study) to \$8,317,465.

This is composed of projects totaling \$4,262,900, \$2,391,018, and \$1,663,547, respectively in each of the test years. Most of this increase is proposed to be funded through operating surplus. In the Amended Rate Study, the depreciation funding in each of the test years is \$1,804,957, \$1,200,317, and \$1,106,300, respectively. Outside funding is proposed as \$2,457,943, \$990,701, and \$457,247, respectively in each of the test years. Funding from operating surplus is projected at \$200,000, in 2024/25, and \$100,000 in 2025/26. With this projected use of depreciation funds, based upon the assumptions of the Amended Rate Study, the depreciation fund balance will decrease from \$2.1 million at the beginning of 2023/24 to \$294,983 at the end of the 2025/26.

### **Findings**

[73] The Board considered the information presented with respect to the proposed capital projects and associated funding. The Amended Rate Study filed in response to the Undertakings is based upon the most up to date information. It uses the 2021/22 financial statements as a 'starting point' for depreciation expenses and depreciation fund balance, defers a project included in the original application, and amends the timing of other capital projects. This changes the proposed funding amounts each year from the depreciation fund and outside sources and adds funding from operating surplus. The Board notes that the projected depreciation fund balance in the Amended Rate Study is greater than projected in the Revised Rate Study. The projected operating surplus, with proposed rates in place, at the end of the test years in the Revised Rate Study is \$2,321,197, compared with \$1,973,304 in the Amended Rate Study. The rates proposed in the Amended Rate Study are slightly less than those proposed in the Revised Rate Study.

[74] Most of the costs included in the test years' capital budgets relate to distribution main projects in Springhill and Parrsboro. As noted, these systems have significant amounts of non-revenue water, due mainly to the age and condition of the mains. Metering in the Springhill Utility should provide the Applicant with more accurate information on water loss. These are positive steps to aid in the utility's efforts to reduce the volume of non-revenue water.

[75] Based upon the information provided, the Board accepts the proposed capital projects and funding, as presented in the responses to the Undertakings, from outside sources, depreciation, and operating surplus. It accepts that the amalgamated utility should have a reasonable depreciation fund balance to be used to fund future capital replacements and additions.

[76] Outside funding makes up a significant portion of the proposed funding in the test years in both the Revised Rate Study and the Amended Rate Study filed. It is uncertain whether all that funding can be secured. Further, the Board understands that there is significant capital work to be done in both the Parrsboro and Springhill Utilities. If the outside funding is not received in the amounts proposed, revisions to the capital budgets in the test years will be necessary. If capital projects are unable to proceed, the Board suggests that the utility put aside the equivalent of the depreciation expense for those projects in a reserve account for future capital works, as opposed to adding it to an operating surplus for a given year.

[77] It is suggested the utility apply to the Board for permission to set up such a capital reserve. Based on subject 3080 of the *Accounting Handbook*, an application to the Board must contain at least the following:

- The purpose of the reserve;
- The term, including estimated termination date;
- The treatment of interest and income earned in the reserve;
- The amount, frequency, and source of payments into the reserve;
- The qualified disbursements from the reserve; and
- The type and frequency of financial reporting of transactions related to the reserve.

Regardless, the Board expects that the utility will closely monitor capital budgets to ensure that timely rate reviews are made.

[78] The Board further encourages the utility to periodically review its lead service line replacement program, with a view to expediting its schedule of replacing all lead service lines.

[79] The Board notes that the inclusion of proposed capital projects in the Rate Study does not constitute the Board's formal approval of these projects. Separate Board approval is required for projects costing more than \$250,000 as set out in s. 35 of the *Act*.

### **c) Non-Operating Revenues and Expenditures**

[80] The test years' revenue requirements identified in the Rate Study include projections of other operating revenue, non-operating revenues, and non-operating expenditures. The non-operating revenues and expenditures were the same in the Rate Study, Revised Rate Study and Amended Rate Study.

[81] The other operating revenue consists of Sprinkler Service revenue and other revenue related to connection fees and other miscellaneous charges, in the annual amounts of \$6,800 and \$6,315, respectively in each of the test years. The only non-operating revenue is identified as Interest in the annual amount of \$14,985 in each of the test years. The Applicant explained that the interest revenue is interest on overdue

accounts, which is projected to remain constant in the test years because the volume of overdue accounts is not expected to change.

[82] The Rate Study includes projected non-operating expenditures related to the principal and interest charges on existing debt, totaling \$204,601, \$192,100, and \$185,975, respectively in each of 2023/24, 2024/25 and 2025/26. The Applicant described the existing debt as relating to the Springhill Utility's water treatment plant, and the establishment of the Pugwash Utility after accounting for the contributions. The Springhill Utility debt will be retired in 2027, and the Pugwash Utility debt will be retired in 2043.

[83] The return on rate base calculated in the Revised Rate Study is 0.52%, 0.48% and 0.46%, respectively in each of the test years. The amendments to utility plant in service and depreciation, as set out in the Undertaking response, resulted in no material change to the return on rate base calculated in each of the test years.

### **Findings**

[84] Given the information presented in this proceeding, the Board accepts the projected non-operating and other revenues, and non-operating expenditures, as presented in the rate study filed in response to the Undertakings. The Board further accepts the calculated return on rate base, as presented in the Undertaking response.

#### **d) Allocations of Revenue Requirement**

##### **1. Public Fire Protection**

[85] The allocations used in the Rate Study in the calculation of the public fire protection charge are generally in accordance with the *Accounting Handbook* and are the same as those used in the previous rate applications for Parrsboro and Springhill. The calculation of the public fire protection charge in each of the test years is based upon the

projected capital additions in those years, which all relate to Parrsboro and Springhill systems. The Pugwash Utility was not built to provide public fire protection, and it is not included in the calculation of the public fire protection charge.

[86] The combined public fire protection charge in 2020/21 is \$596,951. The annual public fire protection charges calculated in the Revised Rate Study are \$601,038, \$682,980, and \$746,783, respectively in each of the test years. These rates are slightly less than those proposed in the original Rate Study due to the correction in the annual depreciation expense. Mr. Isenor explained the proposed increases in the public fire protection charges relate primarily to the distribution main replacements budgeted for the Springhill and Parrsboro Utilities in the test years.

[87] The changes made in the Amended Rate Study, result in the calculation of annual fire protection charges of \$596,951, \$670,948, and \$737,898, respectively in 2023/24, 2024/25 and 2025/26.

### **Findings**

[88] Amendments to the original Rate Study, as set out in the previous section, impact the calculation of the proposed public fire protection charge. The Board notes that the Amended Rate Study results in a decrease in the proposed public fire protection charge in each of the test years from that proposed in the Revised Rate Study. This is due to the reduction in depreciation expense, and the shifting of capital works in the test years' capital budgets.

[89] The Undertaking response is based upon the most up to date information and proposes public fire protection rates calculated using the *Accounting Handbook* methodology. The Board approves the fire protection charge, as proposed in the Amended Rate Study.

## 2. Utility Customers

[90] The remaining revenue requirement, after the allocation to fire protection charges, must be recovered from the customers of the utility. The response to the IRs explained the differences in allocations in the current application from the previous rate studies of each of the utilities, noting that there is no change in allocations from the previous rate study for the Springhill Utility. The response to the IRs further noted the only allocation that differs in the application from the *Accounting Handbook* guidelines is with respect to depreciation expense.

[91] The Applicant explained that the changes from the previous rate studies and the *Accounting Handbook* are proposed for rate design purposes with the objective of having approximately 41% of the utility's total revenue from customer base charges. It added that this was done as a risk management effort for a small utility through providing revenue stability while giving the customer the ability to influence their bill through reducing consumption.

[92] The application projects an annual increase of 10 residential customers in each of the test years, all associated with the Pugwash Utility, which is anticipating more eligible customers to connect.

[93] The residential customers in Springhill are currently unmetered and are charged an unmetered rate based upon an assumed annual consumption volume of 272m<sup>3</sup>. Mr. Isenor noted that the annual 272m<sup>3</sup> assumption is from a study completed in Saint John, New Brunswick in the late 1990's, and appears to be too high for current conditions. The application is based upon annual unmetered consumption of 252m<sup>3</sup> in the first test year. The utility plans to meter all unmetered customers in 2023/24 and bill metered rates in the final two test years. The application assumes annual water



consumption for newly metered Springhill residential customers of 160m<sup>3</sup> in the first test year and 140m<sup>3</sup> in the second test year. Mr. Isenor explained that the assumed annual consumption volumes of 160m<sup>3</sup> and 140m<sup>3</sup> are based on experience with metering residential customers in other water utilities such as in the towns of Amherst and Pictou.

[94] The Board raised concerns about the impact on the utility if not all the customers in Springhill are metered in 2023/24, and they continue to be charged an unmetered rate. Mr. Rooney noted that this will result in more revenue to the utility, as the unmetered rate is based upon a higher annual consumption volume of 252m<sup>3</sup>. The Applicant proposes to maintain an unmetered rate in each of the test years, based on a consumption volume of 252m<sup>3</sup> to be used for the metering transition in Springhill, and in cases where meters cannot be installed due to installations that expose the meter to freezing.

[95] The Parrsboro Utility's customers are currently charged for water based upon 65 Customer Class ID Numbers (tap rates). Mr. Isenor noted that as these rates are based upon tap counts that were done in the 1990's, many customers currently do not pay the correct rates. Meters have been installed in Parrsboro since its last rate application, with a one-year record of consumption used in the application to establish the proposed rate structure. In response to the IRs, the Applicant provided the customer numbers based upon the meters installed. This indicated that the Parrsboro Utility's 721 customers consist of 707 customers with a 5/8" size (residential) meter, four with a 1" meter, four with a 1.5" meter and six with a 2" meter. The Applicant proposes to charge the Parrsboro Utility customers the meter rates, based upon the meters installed, in each of the test years.

[96] Both the Revised Rate Study and the Amended Rate Study resulted in minor changes to the rates proposed in the application. They did not change any of the allocations used in the determination of the base and consumption charges, or any of the projections with respect to the number of customers and consumption volumes.

### **Findings**

[97] The Board approves the methodology used by the Applicant in the calculation of customer rates for each of the test years, based upon the allocations used in the determination of the base and consumption charges, and the projected consumption volumes, including the assumed changes in consumption associated with metering in the Springhill Utility. This same methodology was used in the Amended Rate Study.

[98] The Board approves the customer rates, including the unmetered rate, as presented in the Amended Rate Study filed in response to the Undertakings.

### **e) Schedule of Rates**

[99] In addition to the rates for water supply to its customers, the application proposed miscellaneous rates and charges. The Applicant noted that there are no changes proposed to the miscellaneous charges in the existing Schedules of Rates for each of the three utilities.

[100] There is a change proposed to the bulk water rate. The Applicant noted that there are no bulk water stations, but bulk water is currently provided in the Springhill Utility from the fire department, or a hydrant. The Applicant stated that in the past any revenue from bulk water sales was included in meter sales or other revenue, however, it intends to establish a separate account for bulk water sales revenue in the future.

[101] The Applicant confirmed that the methodology used to calculate the bulk water rate is the same as approved by the Board in the past for other water utilities. Based upon the changes made in the Amended Rate Study, the bulk water rate decreased slightly in each of the test years from the rates proposed in the Revised Rate Study to a per cubic metre rate of \$4.71, \$6.34, and \$7.11, respectively in each of the test years.

### **Findings**

[102] The Board approves the utility's Schedule of Rates, including the bulk water rate, as filed in response to the Undertakings.

#### **f) Schedule of Rules and Regulations**

[103] The application proposed a Schedule of Rules and Regulations for the amalgamated utility. The Applicant noted that the Pugwash Utility's Schedule of Rules and Regulations, the most current of the three utilities, was used as the basis for the amalgamated utility. Mr. Isenor explained that in preparing the proposed Schedule, the Applicant sought consistency with the other recently approved rules and regulations of water utilities in the Province.

[104] The Applicant provided a list, with explanations, of the proposed changes in rules and regulations for each of the three utilities. It was noted that there was an error in the meter testing charge in the Rate Study, which was corrected in the Revised Rate Study. The IR responses noted that the reference to monthly billing in Regulation 8, Billing, could be removed. It further identified a typo in Regulation 38, Pressure Relief Valves. These were changed in the Amended Rate Study filed in response to the Undertakings.

[105] With respect to Regulation 11, Water to be Supplied by Meter, the Applicant proposed to delete the following clause from the current Pugwash Utility Regulations:

Any building occupied by more than one tenant may have a separate meter with appropriate isolation valves for each tenant. With the Utility's approval, such building may be serviced by one meter provided the landlord is the customer.

In response to Undertaking U-6, the Applicant confirmed there are no buildings with multiple meters currently served by the Pugwash Utility that would be impacted by removing the wording and the Regulation as proposed is correct.

[106] In conjunction with the utility's lead service line replacement program, the application proposes the addition of Regulation 26, Lead Service Connection Replacement, which currently does not exist in any of the three utilities' Regulations. The Applicant explained that there were discussions with Halifax Water staff on the subject, and the proposed Regulation is based upon Halifax Water's Lead Service Connection Replacement Regulation that was approved by the Board in 2022.

[107] Proposed Regulation 26 includes several clauses. Regulation 26.4 refers to lead service connections being done on a priority basis. The Applicant described that lead service line replacements will occur in areas where there is infrastructure work, and priority will be given to locations that have higher lead concentrations, based on ongoing testing.

[108] Regulation 26.6 refers to the utility paying an amount up to a maximum of \$5,000 for replacements, which the Applicant described as reasonable. During the hearing, Mr. Waugh-Cress confirmed that the \$5,000 amount should be sufficient to cover costs in most conditions that lead laterals are found.

[109] Regulation 26.9 gives the utility the authority to suspend service in cases where the customer refuses consent for the utility to replace the customer - owned lead service line connection, and the utility determines that this refusal may result in an

increase in lead levels in the customer's drinking water. When questioned by the Board, Mr. Isenor noted that the Applicant does not have much experience with lead service line replacements, and this clause was taken directly from Halifax Water's Regulations.

[110] The Applicant further confirmed that any lead service line replacements that have been done to date at the customer's expense would not be eligible for the reimbursement that is set out in Regulation 26.7.

### **Findings**

[111] The Board finds that the proposed Schedule of Rules and Regulations are reasonable and are generally consistent with those of other water utilities. The Board approves the Schedule of Rules and Regulations, including Regulation 26, Lead Service Connection Replacement, as filed in response to the Undertakings. The Board expects the utility will communicate with customers in cases where there are issues with obtaining consent to replace customer owned lead service lines, due to costs or other reasons, prior to commencing a suspension of service.

#### **g) Contingency Planning**

[112] In response to Board IRs, the Applicant provided general information on its efforts related to contingency planning and emergency preparedness for the utility. During the hearing, the Board questioned the Applicant's statement that it currently has no formal procedures in place for training staff in the event of an emergency, and that no tabletop exercises have been conducted to test such plans. Mr. Herrett responded that a new emergency management coordinator has recently been hired and it is expected that the Municipality's All Hazards Plan will be updated, and will include contingency planning for the utility.

[113] The Board reminds the utility of the importance of maintaining and updating its contingency and emergency preparedness strategies and the associated communication plans.

**V CONCLUSION**

[114] The Board has considered the information presented and approves the amalgamation of the Parrsboro, Pugwash and Springhill water utilities to form the Cumberland County Water Utility.

[115] The Board approves the Schedule of Rates for Water and Water Services as proposed by the Applicant in the rate study filed in response to the Undertakings, with effective dates of April 1, 2023, April 1, 2024, and April 1, 2025.

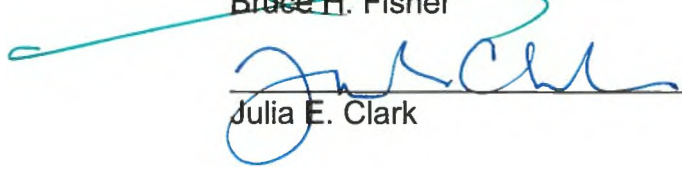
[116] The Board further approves the Schedule of Rules and Regulations as amended and proposed in the response to the Undertakings, with an effective date of April 1, 2023.

[117] An Order will issue accordingly.

**DATED** at Halifax, Nova Scotia, this 23<sup>rd</sup> day of February, 2023.

  
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Richard J. Melanson

  
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Bruce H. Fisher

  
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Julia E. Clark