NOVA SCOTIA UTILITY AND REVIEW BOARD

IN THE MATTER OF THE PUBLIC UTILITIES ACT

- and -

IN THE MATTER OF AN APPLICATION of the **TOWN OF WESTVILLE**, on behalf of its **WATER UTILITY**, for Approval of Amendments to its Schedule of Rates and Charges for Water and Water Services and to its Schedule of Rules and Regulations

BEFORE: Richard J. Melanson, LL.B., Member

APPEARING: TOWN OF WESTVILLE WATER UTILITY

Gerry Isenor, P.Eng.

G.A. Isenor Consulting Limited

Blaine Rooney, CPA, CA

Blaine S. Rooney Consulting Limited

Linda Sullivan Brown

Chief Administrative Officer

Brenda MacKay Financial Consultant

Sam Graham

Superintendent of Public Works

HEARING DATE: June 29, 2021

DECISION DATE: August 23, 2021

DECISION: The application is approved as amended.

I SUMMARY

- The Town of Westville (Town) applied to the Nova Scotia Utility and Review Board to amend its water utility's Schedule of Rates and Charges for Water and Water Services (Rates and Charges) and its Schedule of Rules and Regulations (Rules and Regulations). The application was made under the *Public Utilities Act*, R.S.N.S. 1989, c. 380 (*Act*). The utility's existing Rates and Charges have been in effect since April 1, 2012, and its Rules and Regulations have been in effect since February 1, 2011.
- The application was supported by a rate study dated February 3, 2021, which was prepared by G.A. Isenor Consulting Limited, in association with Blaine S. Rooney Consulting Limited. The rate study proposed rate increases for the fiscal years 2021/22, 2022/23, and 2023/24 (Test Years or Test Period). As originally filed, proposed average increases in each of the Test Years are 9.9%, 5.3%, and 5.4% respectively, for 5/8" metered customers. For all other metered retail customers, the proposed increases range from 7.5% to 12.3% in 2021/22, 5.9% to 7.5% in 2022/23, and 5.0% to 6.1% in 2023/24. The estimated rate changes for metered customers are based on average consumption.
- In addition to serving customers in the Town, the utility sells water to the Municipality of Pictou County (County) at a wholesale rate. The changes to the County's wholesale rate proposed in the utility's original application, based on projected consumption, are -11.2%, 6.5%, and 5.4% in 2021/22, 2022/23, and 2023/24, respectively.
- [4] The utility also proposed changes to the annual charge paid by the Town and the County for water for fire protection service. The current annual public fire

protection charge of \$340,543 is proposed to be set at \$305,383 for each of the three Test Years. This is a proposed decrease of 11.5% from the current rate.

- [5] Board staff issued Information Requests (IRs) to the utility on April 7, 2021. The utility filed its response to the IRs on April 28, 2021. Included in the response was a revised rate study that corrected an error in the 6" meter customer, by removing it as customer of the Town and adding it as a wholesale customer, located in the County. As well, the projected consumption volume of the County, with the addition of the 6" meter customer, was revised and proposed to remain constant throughout the Test Years, as opposed to the 1% annual increase in the original rate study. It is this revised rate study that was reviewed during the public hearing and is referred to in this decision.
- As a result of these changes, the proposed average increases for the 5/8" customers are 13.5%, 5.4%, and 5.5%, respectively, in each of the three Test Years. For all other metered retail customers, the proposed increases range from 12.6% to 15.7% in 2021/22, 6.5% to 7.4% in 2022/23, and 5.4% to 6.1% in 2023/24. The revised changes to the wholesale rate to the County are -5.4 %, 5.5%, and 4.4% in 2021/22, 2022/23, and 2023/24, respectively.
- Due to the COVID-19 pandemic, the public hearing of the matter was held by GoToWebinar videoconferencing on June 29, 2021, after due public notice. Gerry Isenor, P.Eng., of G.A. Isenor Consulting Limited, and Blaine Rooney, CPA, CA, of Blaine S. Rooney Consulting Limited, represented the utility. The utility was also represented by Municipal staff: Linda Sullivan Brown, Chief Administrative Officer; Brenda MacKay, Financial Consultant; and Sam Graham, Superintendent of Public Works.
- [8] There were no formal intervenors in the proceeding. The Board received two letters of comment, and one request to speak during the hearing. The request to

speak related to the concerns of the owner of the Westville Mobile Wash, which was the subject of one of the letters of comment.

During the proceeding, the utility noted that it intended to allocate the tax expense as 100% to the base charge in the determination of the rates to the Town customers, instead of the allocation used in the application. In response to Undertaking U-1, the utility corrected this allocation, revised the proposed effective date of the Rules and Regulations, and prorated the proposed fire protection charge in 2021/22, based upon the revised effective date. This change had a minimal impact on the proposed rates to the Town customers and no impact on the wholesale rate to the County.

[10] The Board approves the Rates and Charges, and the Rules and Regulations as was filed by the utility in its response to Undertaking U-1.

II INTRODUCTION

The utility purchases treated water at a wholesale rate from the Town of New Glasgow water utility, that is supplied via County water mains. The water is metered as it enters the Town and, prior to distribution to the utility's customers, is stored in a one-million-gallon capacity reservoir, where there is a chlorine booster pump station with continuous chlorine residual monitoring. When the reservoir is filled, the New Glasgow pumps are turned off, and the water is gravity fed to the utility's customers through its distribution system. The utility's distribution system also supplies water to the community of Alma, in the County, that is metered at Hamilton Road. The utility does not pump water through its system.

[12] The utility currently serves 1,454 customers, in addition to the County, which is a wholesale customer. The rate study projects, based upon recent activity in the utility's

service area, and the history since the last rate study, that the number of utility customers will remain constant throughout the Test Years.

- [13] The rate study indicated that the average consumption for a 5/8" meter customer has been decreasing since the last rate application. Based upon current consumption levels, the rate study includes a 1% annual decline in consumption in each of the Test Years for the 5/8" metered customers.
- The utility stated that its amount of non-revenue water is approximately 46.5%, which it attributes to leaks in the system, as well as slow moving older meters, which do not accurately reflect the amount of water being consumed. The revenue requirements in the current application include capital and operating costs associated with the replacement of older distribution mains, which are prone to leaks; the replacement of older meters; and leak detection efforts, to aid in the reduction of the magnitude of non-revenue water.
- At the time of its last rate application, the utility had recently analyzed and revised the cost allocations between the Town and the utility. The utility noted that these allocations were reviewed in preparation of the current application. While there were no changes to these allocations, several changes were made in the allocations within the utility, mainly to take into consideration the lack of utility pumping costs, and minimal water treatment activities carried out by utility staff.
- [16] The application is based upon the necessity to adjust utility rates to cover increased operating costs, and to fund the projected capital program.

III SUBMISSIONS - LETTERS OF COMMENT / PUBLIC SPEAKER

[17] Prior to the public hearing, the Board received a letter of comment from Gary MacLaughlin, a resident of Westville, who formerly served on Town Council. He expressed his concerns with an increase in water rates, due to the negative impact on the Town's residents, that includes a high percentage of senior citizens, as well as the impact on commercial businesses. He referred to a water/wastewater project in the 1990's that had significant cost overruns, and at that time, water meters were installed throughout the Town and a "pollution tax" on water was implemented. The letter further questioned why a customer with a small water line to a residence should pick up costs of larger water consumption volumes such as those associated with hydrant flushing and fire protection. In conclusion, he asked that the Board deny the utility's request for a rate increase.

[18] Another letter of comment was received from Mark Salter, the owner of Westville Mobile Wash. Mr. Salter noted that while he does not oppose the rate increase, he opposes the methodology used in the determination of the proposed rates. He explained that his business is most likely among the largest water consumers in the Town, receiving water through a 2" meter. He questioned why his business is charged more for water used though his 2" meter than a residential customer using the same amount of water, with a 5/8" meter.

[19] Mr. Salter's brother, Eric Salter, spoke on his behalf at the public hearing. He explained that after the letter of comment was received by the Board, there was a meeting with the Mayor of Westville and Ms. Brown in which some additional information was provided to him and his brother. He reviewed some of the proposed rate increases and questioned what the proposed rates are for a 2" meter size. He concluded by noting

that their position with the application is to get some clarity on the rate increases proposed for commercial customers in comparison with residential customers.

As discussed in this decision, the revenue requirements of the utility are based upon the projections of necessary operating and capital expenses in the Test Years. Most water utilities are metered to accurately reflect water consumption, and to charge for that consumption. The Board does not regulate "pollution taxes" or wastewater charges of the Town. During the hearing further information was provided on the allocation of the revenue requirements to various charges, including the base and consumption charges, as set out below.

IV REVENUE REQUIREMENTS

(A) Operating Expenditures

The utility estimates that its revenues will exceed its expenses by \$486 in the 2020/21 fiscal year, and that its accumulated operating surplus will be \$66,880. Without a rate adjustment, however, the utility expects an annual revenue deficiency of \$136,824 in the final Test Year, and that it will have an accumulated deficit of \$212,567 at the end of 2023/24.

The rate study noted that the allocation of salaries and benefits was reviewed by the utility in preparation of the application, resulting in adjustments. The response to the IRs detailed the changes and noted that the reallocation of salaries and benefits from water treatment and source of supply expense line items to transmission and distribution, and administration and general expense categories, better reflects the utility's operations. This is due to the utility purchasing all its water from the New Glasgow water utility, and therefore it does not have traditional water treatment activities as would be carried out by a water utility which has its own source of raw water supply. A further Document: 285771

adjustment was made to remove power and pumping as a separate operating expense line item, and to include any pumping expenses in the water treatment category, as the there are no pumps in the system, other than an injector pump for chlorine at the utility's reservoir.

In response to the IRs, the applicant provided a table comparing the operating expense categories in the utility's 2019/20 financial statements to the amounts in the rate study for 2019/20, the latest actual figures that were available at the time of preparing the rate study. The applicant explained that the utility's 2019/20 financial statements is based upon grouping by the auditors that does not reflect the utility's current operations. During the public hearing, the utility confirmed that these changes will be reflected in the preparation of future financial statements.

In response to the IRs, the utility explained its operating budget process, which is zero based and constructed beginning in January of the prior fiscal year. The completed budget is compared to a trend analysis of prior years' data, with adjustments made prior to the budget presentation to Council, with the goal of Council approval by April of the current year.

The applicant provided explanations for variations in several operating expense line items between 2019/20 (actual) and 2020/21 (estimated). Between these two years, the water treatment expense, is estimated to increase by 13%, which the utility indicated was to allow for increased chlorine and operating supplies, power, and an allowance for miscellaneous items that was not used in 2019/20. The transmission and distribution expense is estimated to decrease slightly in 2020/21 due to the inclusion in the previous year of items which were a one time cost and not carried forward. The administration and general expense is estimated to increase by 10% due in part to the

addition of the full year of salary for the CAO position, which was not occupied for six months of the previous year.

The rate study projects a 3% annual increase in each of the Test Years for operating expenses. The applicant explained that the source of supply line item, 'Water Purchased from New Glasgow', is budgeted to increase annually in each of the Test Years by 3%, even though the utility's consumption is projected to decrease, to allow for an increase in the rates charged by the New Glasgow water utility, which have been in place for four years. It further noted that, due to non-revenue water, a decrease in consumption volume does not necessarily mean a decrease in the amount of water purchased.

Included in the transmission and distribution expense is a line item 'Leak Detection and Repair', which is projected to increase annually by 3%. The applicant explained that while the leak detection budget is a part of the maintenance budget, when overnight usage, as monitored by the SCADA system, increases past 25 gallons per minute, a contractor is brought in to perform a system wide survey. The utility has further retained the services of a consultant to assist with leak detection. The priority items identified to aid in the reduction of non-revenue water are the calibration, or replacement, of the master meter at the reservoir, as well as the need to replace plastic service laterals which are showing signs of premature failure. The utility noted that the consultant has indicated that once the reservoir's master meter is providing more reliable data, it will be easier to identify the priority issues to be addressed in the effort to reduce the amount of non-revenue water. The applicant noted that meter upgrades and replacements are included in the rate study's proposed capital budget.

[28] At the time of the utility's last rate application, the cost allocations between the Town and the utility had recently been reviewed and revised. The applicant confirmed that these allocations were reviewed in preparing the current rate application and no changes were made. In response to the IR-17, the utility explained:

Cost allocations between the Town and the Utility are based on actual time and/or estimated usage. Public Works Direct Labour is allocated at 35% and labour hours are tracked and tested to ensure that this percentage continues to be realistic. For administration, Accounts Payable is costed based on total expenses for the Utility as a percent of total expenses overall. Billing and Collections are considered as 50% with the Utility having double the billings considered as offsetting the additional time for the Tax Sale process and overall administration calculates to be 35% and this is the rate used for admin and facility related costs. Public Works indirect costs includes Public Works Management and it is estimated that on average 40% of the time is spent on Utility related work and PW indirect costs are allocated at 40%.

[Exhibit W-5, p.10]

The rate study noted that the depreciation expense carried from 2019/20 has been reduced in 2020/21 by \$17,712 to account for the asset classes of meters and GIS system being fully depreciated in 2019/20. 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 capital additions where the projected useful life differs from the Accounting Handbook, or where no specific depreciation rate is indicated, the utility has provided an explanation for the depreciation rates used in the rate study.

The utility indicated in response to the IRs that with the proposed rates in place, it is projecting an operating surplus of \$66,880 in each of the Test Years. Mr. Rooney confirmed that this projection is based upon the original submission to the Board, with an effective date for the rate increase of July 1, 2021, which was revised by the applicant to October 1, 2021. The applicant noted that this delay will result in a decrease in the surplus by approximately \$20,000, which Mr. Rooney noted will be dependent upon the actual results for the 2020/21 fiscal year.

Findings

In preparing the rate study, the applicant has revised the allocation of expenses, in particular the allocations of salaries and benefits, to the various operating expense line items. As well, the separate operating expense line item for pumping has been eliminated. Based upon the description of the utility's system, the Board finds these revisions to be reasonable, and expects that they will continue to be applied on a go forward basis in the preparation of the utility's financial statements.

[32] The utility provided an explanation for the estimated changes in operating expenses between 2019/20 and 2020/21, which the Board accepts. The operating expenses over the Test Years are based upon an annual increase of approximately 3%, including the source of supply expense for the purchase of water from the New Glasgow water utility, which the Board finds to be reasonable.

Included in the operating expenses are leak detection costs to aid in reducing the utility's amount of non-revenue water. The Board sees this as an important initiative, given the significant amount of water that is purchased from the New Glasgow water utility that does not make it to the utility's customers, representing an increased utility expense. The Board expects that the utility will continue with its leak detection efforts, which along with the meter replacement program contained in the capital budget, should aid in reducing the amount of water recorded as lost in the system.

[34] The Board accepts the allocation of costs between the Town and the utility, which is not proposed to differ from the current practice. The Board reminds the applicant to continue to review these allocations on a periodic basis to help ensure accuracy.

[35] The Board accepts the depreciation expenses projected by the utility for the Test Years, including the reduction in the depreciation expense associated with two asset

classes reaching the end of their depreciation lives. The Board further accepts the utility's explanation for the rates used in the rate study that differ from, or are not included in, the *Accounting Handbook*.

(B) Capital Budget and Funding

The utility projects capital additions in 2020/21 totaling \$220,000, consisting of distribution mains (\$150,000), transportation equipment (\$50,000), SCADA equipment (\$10,000), and the water rate study (\$10,000), funded entirely through the utility's depreciation fund.

The utility's capital budget in each of the Test Years is in the amounts of \$420,000, \$220,000, and \$170,000, respectively. In 2021/22, the capital projects include tools and work equipment (\$150,000), distribution mains (\$250,000), and meters (\$20,000). Distribution mains are included in each of 2022/23 and 2023/24 in the amounts of \$200,000 and \$150,000, respectively. Meters are included, in the amount of \$20,000 in each of 2022/23 and 2023/24.

[38] The response to the IRs provided details of the budgeted distribution main capital expenses. The utility further noted that Council has adopted an asset management plan to provide informed guidance on future replacement of the distribution system to help in the reduction of non-revenue water.

The utility explained that it attributes part of the measured magnitude of non-revenue water to be due to slow moving older meters that do not accurately reflect a customer's water consumption. To deal with this issue, beginning in 2021/22, the utility has dedicated \$20,000 annually from reserve funds to replace these older meters. Mr. Isenor noted that, based upon a cost of \$500 per meter replacement, this equates to replacing 40 residential meters per year.

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The proposed funding for the utility's capital budget in the Test Years is through depreciation and long-term debt. The depreciation fund is proposed to fund the entire amount, \$420,000, of the 2021/22 capital budget, \$50,000 of the 2022/23 capital budget and \$75,000 of the 2023/24 capital budget. The remainder of the 2022/23 and 2023/24 capital budgets, in the amounts of \$170,000 and \$95,000, respectively, are proposed to be funded through long-term debt.

The utility estimates the balance of its depreciation fund at \$498,341 for the year ending March 31, 2021. Based on its projected expenses, the utility expects the fund's balance to be \$208,605 at the end of the Test Period. The applicant described the projected depreciation fund as reasonable, given the utility's size and the fact that it does not own a water treatment plant. It further noted that the combination of depreciation funds and borrowing are being used for funding to maintain a reasonable depreciation fund balance.

Findings

- [42] The Board has considered the information presented with respect to the proposed capital projects and associated funding.
- [43] The Board accepts the utility's asset replacement program, and its continuing practices to reduce the amount of non-revenue water in the system through replacement of the utility's aging distribution mains, and the meter replacement program to more accurately reflect the amount of water consumed. The Board finds the proposed capital budget to be reasonable.
- The Board notes that the balance in the utility's depreciation fund at the end of the Test Period will decrease from the current amount. The applicant has explained that the combination of depreciation fund and long-term debt was used to balance the Document: 285771

rate increase while maintaining a reasonable depreciation fund balance for a utility of this size. The Board accepts the proposed funding of the utility's capital budget.

[45] The utility is reminded that the inclusion of proposed capital projects in the rate study is not Board approval of these projects. Separate Board approval is required for projects exceeding \$250,000, as set out in s. 35 of the *Act*.

(C) Non-Operating/Other Revenues and Expenditures

The utility's projected revenue requirements for the Test Years includes estimated non-operating revenues and expenditures. For non-operating revenue, the utility projects interest and other income, in the annual amount of \$3,000 in each of the Test Years. It further projects other revenue, in the annual amount of \$2,800 in each of the Test Years, consisting of Sundry (\$2,000) and Sprinkler Service (\$800).

The estimated non-operating expenditures in 2020/21 is \$20,703, related to the existing debt charges for waterlines and water equipment. In the first Test Year, 2021/22, the debt charges remain relatively constant at \$20,306, as no new debt is projected to fund the capital budget. For 2022/23 and 2023/24, the utility projects non-operating expenditures of \$34,727, and \$42,610, respectively, that include debt charges for existing and new debt associated with capital additions. The actual amount of interest paid for existing debt is included in the rate study, while an interest rate of 6% is used for new debt. The applicant explained that the 6% interest rate is consistent with that used in other water rate applications and provides a slight cushion in case the capital spending does not come in at budgeted levels, which is often the case. It was further noted that any difference between the projected and actual rate will be adjusted at the time of the utility's next rate application.

The utility calculates its return on rate base using its non-operating expenditures less non-operating and other revenue. Using the assumptions and projections in the rate study, this amounts to 0.60% in 2020/21, and 0.52%, 0.98% and 1.21% in each of the Test Years, respectively. The utility explained that the calculated rate of return on rate base increases over the Test Period due to the additional debt, but it remains low because of the small amount of existing and proposed debt.

Findings

[49] The Board finds the utility's non-operating revenue over the Test Period to be reasonable and accepts it as presented in the rate study.

The Board also finds the non-operating expenditures in each of the Test Years to be reasonable. The Board notes that the interest rate of 6% used in the rate study, for new debt only, is consistent with other rate applications recently approved by the Board. The Board accepts the non-operating expenditures related to new and existing debt in each of the Test Years, as presented in the rate study.

[51] The Board finds the utility's proposed return on rate base over the Test Years to be reasonable.

V REVENUE REQUIREMENT ALLOCATION

(A) Public Fire Protection

[52] The rate study calculates the public fire protection charge, using a methodology that is consistent with the *Accounting Handbook*. This results in an allocation of overall utility plant in service to public fire protection of 44.2%, 44.7%, and 44.9%, respectively, in each of the Test Years. Mr. Isenor noted that this is a slight decrease from the previous rate application, which had an allocation of approximately

45%. However, due to the corrected operating expense allocations, as discussed above, using these utility plant in service allocations results in a decrease in the calculated fire protection charge from the current amount of \$340,543, to \$274,473, \$291,806, and \$305,383, in each of the Test Years, respectively.

[53] The utility has requested that the fire protection charge be set at \$305,383 for each of the Test years, to avoid the rate going down and then up again. Mr. Isenor added that the request will lower the rate impact to the utility's customers, as it will result in a decrease of approximately \$30,000 from the revenue requirement to be recovered from customers' rates in the first Test Year.

After the total fire protection charge is calculated, it is allocated to the Town and the County using a methodology that has been previously approved by the Board. The application of the methodology results in the total fire protection charge being allocated 80.7% to the Town and 19.3% to the County.

Findings

[55] The Board accepts the applicant's explanation for the request to set the fire protection charge in each of the Test Years at \$305,383, the amount calculated in the final Test Year using the methodology set out in the *Accounting Handbook*.

[56] The Board further accepts the methodology used to allocate the public fire protection charge between the Town and the County, which is consistent with that previously approved by the Board.

(B) Wholesale Rate to the County

1. Allocation of Expenses to Joint Use

The remaining revenue requirement, after the allocation to fire protection charges, is to be recovered from the utility's customers. To determine how much of the revenue requirement should be allocated to the County, the utility identifies the assets that are jointly used, and expenses jointly incurred, to provide service to both the County and the utility's other customers.

[58] Expenses relating to the source of supply and water treatment are considered to have been 100% jointly incurred to provide service to the County and retail customers.

[59] For expenses relating to transmission and distribution, the utility determined that 43.0% are jointly incurred to supply service to the County and retail customers, based upon the length of pipe used to deliver water to the County, as a percent of the overall water system. The utility stated that this percentage is taken from the previous rate application, as there have been no changes in the overall system since then.

[60] The utility considers only part of its administration and general expenses as jointly incurred to supply service to the County and retail customers. The utility deducts all costs associated with meter reading and collection and half of all other costs, with the remainder considered joint costs. For the Test Period, this amounts to 35.5% of all administration and general costs in each of the three Test Years.

[61] In calculating joint depreciation expenses, the utility includes the depreciation of the transmission and distribution assets that are jointly used, as discussed above, and the depreciation associated with the reservoir and purification equipment assets. Based on this methodology, 34.82% of the utility's total depreciation expense is

jointly incurred to provide service to the County and retail customers in each of the Test Years. This is the same methodology used by the utility in its previous rate application.

[62] A joint use allocation of 35.56% for taxes has been calculated for each of the Test Years. This is based on taking the total tangible plant and deducting the amounts associated with transportation equipment, the river intake, hydrants, meters, and services. The resulting amount is multiplied by 43%, relating to the joint use transmission and distribution mains, and is divided by the total tangible plant to arrive at the joint use percentage. This methodology is consistent with the utility's previous rate application.

The calculation of the portion of the return on rate base considered jointly incurred is based on the annual debt servicing costs for the loan for the utility's reservoir and distribution mains, compared to the return on rate base determined in the rate study. This calculation results in joint use return on rate base allocations of 60.19%, 51.62%, and 40.10% in each of the Test Years, respectively.

Findings

The rate study provided supporting calculations to identify jointly incurred expenses, using a methodology that was consistent with the previous application. The Board accepts the joint use expenses presented in the revised rate study and finds them to be reasonable for each of the Test Years.

2. Allocation of Joint Use Expenses

The joint use expenses are allocated between the County and the utility's other retail customers based on the amount of water sold to the County, compared to the amount sold to the utility's other customers plus unaccounted water attributed to the Town.

In the original application, it was projected that there would be an annual 1% increase in the water sold to the County over the Test Period. The revised rate study filed in response to the IRs removed this 1% increase and projected the volume sold to the County to remain constant throughout the Test Period. The utility explained that this is due to the correction of removing the 6" meter customer as a retail customer and including it within the County, which has resulted in a higher consumption for the County. It noted that given the inclusion of this additional flow, it is difficult to make a reliable projection of growth in sales to the County during the Test Period. The utility stated that as it is not aware of any upcoming growth initiatives in the County, the revised rate study is based on the volume of water sold to the County to remain constant in each of the Test Years.

The utility explained that the inclusion of an allocation of unaccounted for water in the joint use consumption calculation differs from the utility's previous rate application, which did not include this allocation. It noted that the effect of this methodology, which is consistent with the methodology used in other utilities where wholesale rates are calculated, is that unaccounted for water is allocated more fairly to the wholesale customer. As a result, in this case, it has the effect of lowering the allocation to joint use for the County than would have been calculated using the prior methodology. The joint costs are allocated to the County in each of the Test Years as 4.65%, 4.67%, and 4.7%, respectively.

The expenses to be recovered by the utility from the County are then split into base and consumption (or commodity) charges to be paid by the County. Expenses relating to the source of supply, water treatment, and transmission and distribution are allocated to the County's commodity charge, while administration and general,

depreciation, and tax expenses are allocated to the base charge. Return on rate base is allocated as 40% to the County's base charge and 60% to the commodity charge. These allocations are consistent with the calculations approved by the Board in the previous application.

Findings

[69] The Board accepts the methodology used to allocate the joint use expenses, based on consumption volume, and including an allocation of unaccounted for water, which is consistent with that recently approved by the Board for other utilities with wholesale rates. The Board also accepts the projected consumption volume of the County, noting that due to the correction to include the 6" meter customer within the County, which increases the County's consumption, it is difficult to determine a historical trend upon which to base future water consumption volumes.

[70] The further allocation of the revenue required from the County to base and commodity charges is generally consistent with the utility's last application and with other utilities in Nova Scotia.

[71] Based on the evidence presented in the rate study submitted with the response to the IRs, the Board approves the allocation of the revenue requirement to the County.

(C) Retail Customer Revenue Requirement

[72] After allocating part of the utility's revenue requirement to charges for fire protection and for water service to the County, the remaining revenue requirement must be recovered from the Town's retail customers.

[73] The methodology used in the rate study to allocate the remainder of the revenue requirement to determine the various components of customer rates are the Document: 285771

same as indicated in the *Accounting Handbook*, except for source of supply and taxes. In the *Accounting Handbook* source of supply expense is allocated 100% to production (consumption charge), which is consistent with the utility's last rate application. The rate study allocates source of supply expense as 32% to the base charge and 68% to the production charge. The applicant explained that this is based on the utility purchasing its water from the New Glasgow water utility, with the most recent billing showing 32% of the total bill is for base charges and 68% for consumption charges.

Taxes in the rate study are allocated as 40% to the base charge and 60% to the consumption charge (30% to delivery and 30% to production), which is consistent with the last rate application, while the *Accounting Handbook* methodology allocates taxes as 100% to the base charge. In response to the IRs, the utility noted that taxes should have been allocated as 100% to the base charge, as set out in the *Accounting Handbook*. This was revised in the revised rate study filed in response to Undertaking U-1.

[75] In addition to the changes noted above between the current application and the last application, the transmission and distribution expense allocation has been amended to be consistent with the *Accounting Handbook*, at 100% to delivery. In the previous application, this allocation was 40% to base and 60% to delivery (consumption charge).

[76] In response to Mr. Salter's question with respect to increased charges for an increase in meter sizes, Mr. Isenor explained capacity ratios in the calculation of base charges:

...given Mr. Salter's question about how rates are calculated, I will go into the capacity ratio. Because what we do in each one of these is we take the capacity ratio of the meter. So a five-eighths-inch meter is assigned a capacity of one, and all the other meters are tested to see how much water they can safely put through them versus that five-eighths. So a three-quarter-inch can put one and a half times as much water. A two-inch

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can put eight times as much water, and of course you get up to a six inch. You can put 50 times as much water through the meter as you can through the five-eighth-inch meter.

So that capacity ratio is used on the next page, which is page 44 and Worksheet C-5, to calculate the base rates. We determined on Worksheet C-3 how much money we needed from base rates and now what we do is we assign a base charge, which in the case of the first year is \$195.26 to the five-eighths-inch meter and then if we go down you'll see that the three-quarter-inch is one and a half times that. The one inch is two and a half times that and so on.

[Transcript pp. 20, 21]

[77] Mr. Isenor added that the methodology used is reflective of the rate structure previously approved by the Board, with the capacity ratios established by the American Water Works Association (AWWA), recognized as the standard setting organization for the water industry in North America. He further noted a small portion of the base charge is assigned as a customer charge to reflect billing and meter reading, with this portion of the charge the same for all meter sizes.

During the hearing, the Board questioned Mr. Isenor on the need to use capacity factors in the calculation of base charges. Mr. Isenor responded that the system must be built with the proper size infrastructure to meet the demands of the customer to withdraw water. He stated that a 6" meter could act like fifty 5/8" customers, which is addressed through the capacity ratio, with the meter reading how much water a customer takes.

[79] The utility currently has 1,454 retail customers, which is less than the 1,466 customers at the time of the last rate application. The utility noted that while the number of residential customers has decreased since the last application, the number of customers in the other classes has slightly increased. The application projects no change in the number of customers during the Test Period.

The rate study includes a projection that its 5/8" customers will reduce their average consumption by 1% in each of the Test Years, based upon declining consumption levels since the last rate application, with no changes in consumption for any other metered customers. The utility noted that the decline in the 5/8" meter size consumption since the last rate application, 11 years ago, is approximately 1.3% per year. It explained that the 1% was used to allow for the levelling out of the rate decline, based upon the current housing stock.

Findings

[81] The Board accepts the methodology used by the utility to distribute expenses to base, customer, delivery, and production charges, which is consistent with the *Accounting Handbook*, except for source of supply and taxes. The utility does not have its own source of supply, as is common in most water utilities, but purchases water from the New Glasgow water utility. Given this characteristic of the utility, the Board accepts the utility's explanation for the allocation of source of supply expenses. The revised rate study filed in response to Undertaking U-1 uses the allocation for taxes that is consistent with the *Accounting Handbook*, which the Board accepts.

[82] Mr. Isenor provided further detail on the calculation of base charges using capacity factors in response to Mr. Salter's request for clarity on the increases in base charges as meter sizes increase.

[83] The Board finds the projected decrease of 1% of consumption per year for 5/8" metered customers to be reasonable. The projected consumption volume is used in the determination of the consumption charge, which is applied to each of the retail customer's metered consumption.

VI SCHEDULE OF RATES AND CHARGES

[84] The utility proposed amendments to its Rates and Charges, other than to the rates charged to its customers and the fire protection charges, discussed above. The utility's response to IR-42 outlined these proposed revisions.

The application proposes to amend the interest rate charged on late payments from 1.17% per month to 1.25% per month for consistency with the interest rate charged by the Town on late payments for Municipal taxes. In addition, the rates charged for water supplied from fire hydrants, re-establishing water service, the creation of an account and disconnection of service, are proposed to be amended to reflect the actual cost of service. The utility further proposes to add a fee to allow the utility to charge for a collection visit.

[86] The utility submitted updated Schedules A, B, and C as part of its response to Undertaking U-1. The updated schedules prorated the fire protection charge in Schedule A, based upon an effective date of October 1, 2021, and provided the proposed rates to the Town and County customers with the revised allocation of taxes to 100% to the base charge, as discussed above.

Findings

[87] The Board finds the proposed changes to the utility's miscellaneous charges, based upon the cost to supply the service, to be reasonable and accepts them as proposed.

[88] The Board accepts and approves Schedules A, B, and C, as filed in response to Undertaking U-1.

VII SCHEDULE OF RULES AND REGULATIONS

[89] In response to IR-46, the utility listed the proposed amendments to its Rules and Regulations. Mr. Isenor stated that the main reason for the proposed revisions is to update the Regulations and make them comparable to other water utilities in the province, as they have not been revised in over ten years.

[90] In addition to amendments to the existing Regulations, the application proposes the addition of three new Regulations: Reselling of Water; Water Conservation Directives; and Curb Stop/Control Valve Service Box. Each of these three Regulations are common in other water utility regulations in the province.

[91] In response to Undertaking U-1, the utility provided as Schedule D, the utility's Schedule of Rules and Regulations, with a revised effective date of October 1, 2021.

Findings

[92] The Board finds that the proposed amendments to the Rules and Regulations are reasonable and approves the Rules and Regulations as filed with the rate study, with an effective date of October 1, 2021.

VIII CONTINGENCY PLANNING

[93] In response to IR-53, the applicant provided general information on its efforts related to contingency planning and emergency preparedness for the utility. It noted that risk assessments are included in the utility's asset management plan, and that contingency plans have been in place since 2011 for several utility items, which are included in the Operations Manual provided to the utility's two Chief Operators. It added

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that, while no tabletop exercises have been performed, staff review the Operations Manual, including the contingency plans, annually.

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

IX CONCLUSION

[95] The Board approves the Rates and Charges, effective October 1, 2021, April 1, 2022, and April 1, 2023, as shown in Schedules A, B, and C, as received by the Board in response to Undertaking U-1.

[96] The public fire protection charge in 2021/22 is to be prorated at six months at the new rate and six months at the current rate.

[97] The Board approves the Rules and Regulations as shown in Schedule D in the rate study, effective October 1, 2021.

[98] An Order will issue accordingly.

DATED at Halifax, Nova Scotia, this 23rd day of August, 2021.

Richard J. Melanson