DECISION **2023 NSUARB 164**
M11101

NOVA SCOTIA UTILITY AND REVIEW BOARD

IN THE MATTER OF THE PUBLIC UTILITIES ACT

- and -

IN THE MATTER OF AN APPLICATION by the **TOWN OF WOLFVILLE, ON BEHALF OF ITS WATER UTILITY** for approval of amendments to its Schedule of Rates and Charges for Water and Water Services and amendments to its Schedule of Rules and Regulations

BEFORE: Jennifer L. Nicholson, CPA, CA, Member

APPLICANT: **TOWN OF WOLFVILLE**
Gerry Isenor, P.Eng.
G.A. Isenor Consulting Limited

Blaine Rooney, CPA, CA
Blaine S. Rooney Consulting Limited

Mike MacLean
Director of Financial Services

Alex de Sousa, P. Eng.
Director of Public Works

HEARING DATE: August 16, 2023

FINAL SUBMISSIONS: **August 17, 2023**

DECISION DATE: **September 18, 2023**

DECISION: **Schedules of Rates and Charges effective October 1, 2023, April 1, 2024, and April 1, 2025, are approved, as amended by the Utility in Undertaking U-1.**

Schedule of Rules and Regulations effective October 1, 2023, is approved, as amended by the Utility.

I SUMMARY

[1] The Town of Wolfville applied to the Nova Scotia Utility and Review Board on behalf of its water utility to amend its Schedule of Rates and Charges for Water and Water Services and its Schedule of Rules and Regulations. The existing rates and charges have been in effect since April 1, 2020, while the Schedule of Rules and Regulations has been in effect since January 1, 2019.

[2] A rate study to support the application, dated April 3, 2023, was prepared by G.A. Isenor Consulting Limited, in association with Blaine S. Rooney Consulting Limited, and was submitted to the Board on April 25, 2023.

[3] Information Requests were issued by Board staff on June 2, 2023, and responses were filed by the utility on June 21, 2023.

[4] The rate study proposed amendments to rates for the fiscal years 2023/24, 2024/25, and 2025/26, for all customers. Based on average quarterly consumption for 5/8” meter customers, the proposed increases in each test year were 18.8% in 2023/24, 3.4% in 2024/25, and 4.2% in 2025/26. For all other metered customers, based on the average quarterly consumption of each meter size, the proposed rate increases were between 18.0% and 20.1% in 2023/24, 3.7% to 4.0% in 2024/25, and 4.8% to 5.0% in 2025/26.

[5] The utility also proposed amendments to the annual public fire protection charge paid by the Town for the provision of water for fire protection services. The total annual public fire protection charge, currently $396,023, was proposed to increase to $479,277 (a 21.0% increase) in 2023/24, to $515,668 (a 7.6% increase) in 2024/25, and to $542,271 (a 5.2% increase) in 2025/26.

[6] Following public notice, the Board held a hearing at the Town's Council Chambers on Wednesday, August 16, 2023. Gerry A. Isenor, P.Eng., of G.A. Isenor Consulting Limited, and Blaine Rooney of Blaine S. Rooney Consulting Limited represented the utility. In addition, the utility was represented by Mike MacLean, Director of Financial Services and Alex de Sousa, Director of Public Works.

[7] No members of the public requested to speak during the hearing, and the Board did not receive any letters of comment from utility customers.

[8] A revised rate study was filed in response to Board IRs, which included corrections to depreciation rates of some items in the test years' capital budgets; non-operating revenue (interest on arrears); the utility plant in service amount in 2021/22, which was carried forward in the test years; and the accumulated allowance for depreciation for 2022/23. The revised rate study was reviewed during the public hearing, and will be discussed in this decision, unless otherwise noted.

[9] A final rate study was filed in response to the undertakings on August 17, 2023. The final rate study is based upon updated information on water treatment (purification) operating expenses associated with increased chemical costs to treat acidic water from one of the utility's two supply wells. The utility over used its well which has water that closely meets Health Canada's acidity requirements, requiring it to use the other, more acidic production well. This resulted in increased water treatment costs to meet drinking water quality guidelines. This amendment, along with the corrections made in the rate study filed in response to the IRs, results in increases to the base charges for all meter sizes, consumption rates, and fire protection charges over the test period, from what was in the original rate study.

[10] Based on average quarterly consumption for 5/8” meter customers, the revised proposed increases in each test year are 27.8% in 2023/24, 4.5% in 2024/25, and 3.9% in 2025/26. For all other metered customers, based on the average quarterly consumption of each meter size, the proposed rate increases are between 26.1% and 32.1% in 2023/24, 5.1% to 5.2% in 2024/25, and 4.6% to 4.7% in 2025/26. The proposed increases in the public fire protection charges are 19.3% in 2023/24, 5.3% in 2024/25, and 5.4% in 2025/26.

[11] The Board approves the rates and charges as filed in response to Undertaking U-1 for each of the test years.

II INTRODUCTION

[12] The utility’s source of supply is from two wells located within the town boundaries. Groundwater from the wells is pumped to the utility’s water treatment facility, with the treated water stored in a 2.6 million imperial gallon in ground concrete storage reservoir on the same property. The treated water is provided to utility customers through a gravity fed distribution system. An exploration study and budgeting are currently being undertaken by the utility to add a third supply well to address concerns with capacity and redundancy.

[13] At the time of its last rate application in 2018, the utility’s non-revenue water was 35% to 40% of total volume of treated water, which the utility indicated has not dropped since that time. The utility is currently replacing flow meters with more accurate instruments to provide a specific measurement of non-revenue water. It further has an ongoing capital program to replace aging mains and detect leaks.

[14] The utility currently has approximately 1,600 service connections, with a projected annual increase of two residential, 5/8” meter size customers over the test years. The rate study includes a 1.2% per year reduction in consumption volume for residential customers over the test years, based on historical consumption volume levels.

[15] The utility applied to adjust rates to meet increased operating costs and to fund the utility’s proposed capital program.

III REVENUE REQUIREMENTS

a) Operating Expenditures

[16] The utility’s financial information for the year ended March 31, 2022, the most recent actual information available at the time of preparing the rate study, indicated that its expenses exceeded its revenues by $138,352 with an accumulated surplus of $426,050. Without a rate increase, the utility expects a revenue deficiency of $357,404 in the final test year, and an accumulated deficit of $595,916 at the end of 2025/26. With the revisions made to the rate study filed in response to Undertaking U-1, as discussed below, the projected revenue deficiency in the final test year is $426,363, and an accumulated deficit of $796,825.

[17] In response to Undertaking U-2, the applicant filed the utility’s audited financial statements for the year ended March 31, 2023. Mr. Isenor noted that the utility’s financial position is slightly better than what was projected in the rate study. A budgeted dividend of $20,000 to the Town was not paid which improved the situation. The annual budget amount has been set at $50,000 since the 2020/21 year, consistent with the 2018 rate application. When the fiscal 2022/23 year end forecast indicated a possible deficit, the utility reduced the budgeted dividend.

[18] The utility's operating budget was prepared by the Director of Finance based upon historical costs and current regulations and was then reviewed by the Director of Engineering and Public Works. The draft budget was presented to Town Council and reviewed by staff, with the final budget prepared by staff and approved by Town Council in a formal motion. The utility indicated that there have been no changes to its budgeting process since the last rate application.

[19] There have also been no changes to the methodology to allocate costs between the Town and the utility, with only small changes to the ratio percentages. The response to the IRs set out details on the percentages used, noting that only common costs that are not directly attributable to a fund are included in the allocations based upon the described percentages. It further explained that, when possible, costs that can be directly attributed to an operation are posted directly to that fund.

[20] The operating expenses in the rate study come from the utility's budgets, which are based upon a 3% annual increase in each of the Test Years. Any significant deviations in annual operating expense increases from 3% were explained by the applicant in IR responses. All salary and wage expenses are projected to increase by 3.5% to 4% annually in anticipation of slightly higher costs. There has been higher than normal staff turnover due to retirements since the last rate application.

[21] The projected annual depreciation expense is based upon the addition of planned infrastructure in each of the test year's capital budgets. The depreciation rates used are as set out in the *Water Utility Accounting and Reporting Handbook* (*Accounting Handbook*), with the applicant explaining any deviations, based upon the asset's expected useful life.

[22] In response to the IRs, the applicant explained the key cost drivers affecting the utility in the test years:

> Key cost drivers now include inflation which has increased significantly beyond previous decade. This has an impact on internal wages as well as cost of supply. The post-COVID economy appears to have resulted in supply chain issues, and price escalations that surpass regularly published inflation rates. Level of new customers has not yet impacted costs, however the Utility is looking into a possible 3rd operating well to ensure adequacy of supply (increased redundancy) and future demand from development expected within the coming decade. The impact of the development not likely to be material for another 5 years.
>
> [Response to IR-27, Exhibit W-4]

[23] The utility filed an amended rate study in response to Undertaking U-1 that updated the water treatment – operational equipment and supplies expense line-item to cover the increased cost of chemical supplies. Mr. Isenor explained that the utility over used its well, which has water that closely meets Health Canada's acidity requirements, requiring it to use the other, more acidic production well. The impact of this is an increase in the rate study's expense in 2023/24 from $55,000 to $120,000, increasing annually by 3% in each of 2024/25 and 2025/26. Mr. Isenor noted that this amendment will result in an approximate $5.00 to $6.00 increase per quarter for an average residential customer from the rates proposed in the rate study filed in response to the IRs. He added that even with this increase, the Wolfville water utility will continue to have one of the lowest water rates in the province.

[24] The utility continues to have issues with non-revenue water. In addition to the replacement of flow meters and an ongoing capital program to replace mains, Mr. de Sousa explained that staff are working to improve the geographic information system (GIS) data base. This involves logging information when breaks occur which will be used to inform the capital replacement program. He noted that while the utility's goal is to reduce the magnitude of non-revenue water, no specific target for reduction has been set,

as it is not known how the addition of more accurate flow meters will impact the measurements.

Findings

[25] The operating expenses over the Test Years are based upon an annual increase of 3%, and the utility explained the reasons for the items that differed. The utility filed a revised rate study in response to the undertakings to update water treatment costs due to the need to use its secondary production well which required additional treatment to meet drinking water quality guidelines.

[26] The Board accepts the operating expenses, including the depreciation expenses, projected by the utility for the test years in the amended rate study filed in response to Undertaking U-1.

[27] The Board accepts the allocation of costs between the town and the utility. The Board reminds the utility to review these allocations on a periodic basis to ensure accuracy.

[28] The utility's amount of non-revenue water continues to be a concern, especially given the increased treatment costs with the use of the utility's second production well. The Board understands that the replacement of flow meters should provide a more accurate estimate of non-revenue water which will aid in benchmarking water loss data. The Board encourages the utility to continue its water loss reduction efforts.

b) Capital Budget and Funding

[29] The rate study included the utility's proposed capital additions in each of the test years of $864,300, $540,000 and $620,000, respectively. Transmission mains are included in each of the test year's capital budgets in the amounts of $360,000, $400,000

and $495,000, respectively. The applicant explained the transmission main replacement program is based on available data, such as age, pipe material and breakage history, with prioritization influenced by the necessity to provide additional capacity, redundancy, and/or resiliency to the system. This information is then incorporated into the Town's Ten-Year Capital Investment Plan, and where there are street projects where infrastructure replacement needs align. It added that, if necessary, water utility infrastructure work is scheduled without the benefit of alignment with other town projects.

[30] Included in the capital budget are costs related to exploration/development and new infrastructure construction for a third supply water production well, which was discussed during the public hearing. Mr. de Sousa explained that there is currently little redundancy in the system, which was highlighted recently when one of the two wells was over-stressed. Consulting engineers have been engaged by the utility to study the aquifer to identify target areas for potentially locating the third well. This work also relates to the utility's source water protection plan update, budgeted in 2023/24. Mr. de Sousa noted that there is a small amount budgeted in the test years for the new production well project, as details about the project will become clearer as the project progresses over the years.

[31] The table below summarizes the proposed funding of the test year's capital budgets:

	2023/24	**2024/25**	**2025/26**
Depreciation Fund	$372,100	$170,000	$225,000
Long Term Debt	$399,900	$300,000	$325,000
Capital out of Revenue	$ 70,000	$ 70,000	$ 70,000
Capital from Surplus	$ 22,300		
Total	**$864,300**	**$540,000**	**$620,000**

[32] The estimated terms of the long-term debt are 6% over 20 years. The utility noted the purpose of the proposed capital out of revenue funding source is to fund smaller

capital/shorter life span projects and to reduce the need for long term debt. When accumulated surplus levels have exceeded the level that staff believe is necessary to ensure financial stability, it has been used to fund capital projects. This reduces reliance on long term debt and relieves pressure for rate increases. Fiscal 2023/24 is the last planned year for this approach, as the surplus has been continually decreasing.

[33] Based on projected expenses and funding, the utility expects the balance of its depreciation fund to be $116,648 at the end of the test period. The utility noted that it considers this balance to be adequate to handle any unforeseen expense.

Findings

[34] The Board has reviewed the proposed capital projects and sources of associated funding included in the rate study. The Board finds the proposed capital budget to be reasonable and necessary for the replacement of aging infrastructure, including mains, and meters and other items to aid in the reduction of non-revenue water. The Board recognizes the need for a third production well, with the initial costs associated with this project included in the test years' budgets. The Board accepts the proposed funding sources for the proposed capital projects.

[35] The Board reminds the utility that the inclusion of proposed capital projects in the rate study is not Board approval of these projects. The utility needs separate Board approval for projects exceeding $250,000, as set of in s. 35 of the *Public Utilities Act.*

a) Non-Operating/Other Revenue and Expenditures

[36] The utility identified other annual operating revenue in each of the test years in the rate study for sprinkler services and miscellaneous charges at $10,800 and $12,000, respectively. The rate study includes non-operating revenue of interest on

arrears, investment income and job cost billing in the annual amounts of $1,600, $6,500, and $6,000 respectively, in each of the test years. The utility explained that the revenue from job cost billing relates to fees to hook-up water service.

[37] Non-operating expenses in each of the test years includes current debt payments associated with funding of the underground water distribution and transmission line work from 2017, as well as debt charges related to funding the capital budgets in each of the test years. Other debt charges related to the difference between the debenture proceeds and the face value of the debenture are included in each of the test years.

[38] Also included as non-operating expenses in each of the test years is capital out of revenue in the annual amount of $70,000, used to fund the capital budgets, and a dividend in the annual amount of $50,000. The applicant explained the dividend to owner, in the annual amount of $50,000 was previously approved by the Board as part of the utility's last rate application.

[39] 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, the utility's rate of return on rate base is estimated as 1.28% in 2023/24, 1.35% in 2024/25 and 1.42% in 2025/26.

Findings

[40] The Board finds the utility's other operating revenues and non-operating expenditures over the Test Period to be reasonable and accepts them as presented in the rate study. The Board finds the utility's proposed return on rate base over the Test Years to be reasonable.

IV REVENUE REQUIREMENT ALLOCATION

a) Public Fire Protection

[41] The methodology used in the Rate Study for the determination of the public fire protection charge is in accordance with the *Accounting Handbook* and is consistent with that used in the previous rate application.

[42] The allocation of utility plant in service to public fire protection is calculated in the rate study as 51.0% in 2023/24 and 50.9% in each of 2024/25 and 2025/26 which is consistent with the utility's previous rate application.

[43] While there is no change to the utility plant in service percentages, the revisions made to the water treatment operating expense in the rate study filed in response to Undertaking U-1 results in an increase to the proposed public fire protection charges from those originally proposed,

[44] Based upon the revised rate study filed in response to Undertaking U-1, the annual fire protection charge is proposed to increase from the current amount of $396,000 to $472,660 (19.3% increase) in 2023/24, $497,557 (5.3% increase) in 2024/25 and $524,633 (5.4% increase) in 2025/26.

[45] The utility advised that although system testing and reporting specific to fire flow capabilities has not been completed, it typically performs an annual Uni - Directional Flushing program. The response to the IRs attached a recent copy of this report, showing available hydrant flows at the time of testing. The utility further noted that a more comprehensive distribution system computer model is currently being undertaken by engineering consultants, which will highlight any areas of concern with respect to fire flow capacities.

Findings

[46] The methodology used to determine the public fire protection charge conforms to that set out in the *Accounting Handbook*. The Board finds the utility's proposed fire protection charges for each of the test years, as presented in the rate study filed in response to Undertaking U-1, to be reasonable.

[47] The application proposes rates effective October 1, 2023, which is six months after the start of the 2023/24 fiscal year. The Board approved annual public fire protection charge for the first test year is based upon six months at the current rate ($396,000) and six months at the proposed rate ($472,660), in the amount of $434,330.

b) Utility Customers

[48] The remaining revenue requirement, after the allocation to fire protection charges, is to be recovered from the customers of the utility.

[49] The applicant noted that the allocations used for base charge, customer charge, delivery, and production are consistent with the guidelines set out in the *Accounting Handbook* and are consistent with the allocations used in the utility's previous rate study.

[50] The application projects annual growth of two residential (5/8" meter size) customers in each of the test years. In response to the Board's concern that the projected growth may be too conservative Mr. Isenor explained that he believes that it is not conservative. He added that as each new residential customer represents approximately $400 per year in additional revenue, if growth occurs sooner, the utility may see a modest surplus. In response to the IRs, the applicant explained that it considers it prudent

budgeting to have consistency of conservative growth assumptions. It further noted that although actual growth exceeded the projected growth since the last rate study, future growth is not guaranteed at a higher rate.

[51] The rate study includes a 1.2% per year reduction in water consumption for residential customers in each of the test years. Mr. Isenor noted that utility's residential consumption has decreased annually on average by approximately 1.2% since the last rat application, and there is room for this rate of decrease to continue.

Findings

[52] Based upon the information provided, the Board accepts the projected annual growth of two residential customers in each of the test years. The Board further accepts the 1.2% annual decrease in residential consumption volumes, which follows consumption trends in most water utilities in the province.

[53] The Board accepts the methodology used in the calculation of base and consumption rates for each of the test years.

V SCHEDULE OF RATES AND CHARGES

[54] The utility proposed amendments to its Rates and Charges, other than the rates charged to its customers and the fire protection charge, discussed above. The utility's response to the IRs outlined these proposed revisions.

[55] The application proposes to increase the rates charged for re-establishing water service, account creation fee, disconnection fee, special service charge and charge for non-negotiable cheques.

[56] The utility explained that the amendments and additions are to reflect the utility's cost of providing the service.

[57] In the recent Town of Stellarton water utility rate application, there was discussion of some water utilities' confusion related to the determination of the "return on rate base" portion of the public fire protection formula. The formula is used to calculate the annual public fire protection charge in years following a rate study's test years. To address the confusion, the Board approved for rate-making purposes, the definition of return on rate base for allocating fire protection charges to be non-operating expenses less non-operating revenue and other operating revenue.

[58] In response to an IR, the utility revised the application's wording of the proposed formula to calculate the public fire protection charge, to be consistent with the recently approved return on rate base definition.

Findings

[59] 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. The Board further accepts the revised wording provided in the response to the IRs for the formula to calculate the annual public fire protection charge after the test year period.

VI SCHEDULE OF RULES AND REGULATIONS

[60] In response to IRs, the utility indicated that the only change proposed to the Schedule of Rules and Regulations relates to Regulation 20 – Service Pipes. The utility noted that the flat rate charge for supplying and laying the service pipe, backfilling and

replacement of the street and sidewalk services from the main to the street line is proposed to increase from $3,000 to $6,500. The proposed change is to reflect the estimated actual average cost of the work.

[61] The utility indicated during its 2018 rate application that it had not yet implemented an active cross connection control and backflow prevention program (Regulation 26). As an update, the utility explained in response to an IR that it requires all new residential installations to have a certified check valve backflow prevention (BFP) device. For larger services, BFP devices are designed and verified by the customer's mechanical engineer. It added that although no formal program is in place for annual re-certifications of BFP's for service, this is currently being reviewed by staff.

Findings

[62] The Board finds that the proposed Rules and Regulations are reasonable and consistent with other water utilities in the province. The Board approves the Rules and Regulations, as filed in the application, with an effective date of October 1, 2023.

VII CONTINGENCY PLANNING

[63] In response to IRs, the utility provided general information about its efforts related to contingency planning and emergency preparedness for the utility. The utility is currently reviewing all operations and is beginning to take steps to address risk areas. In addition, a formal Operation and Maintenance (O&M) Manual with updated standard operating procedures tied to the water utility assets is being developed with support from an external engineering consultant. The same consultant has been engaged by the utility to update the source water protection plan, which was last updated in 2008.

[64] The Board is encouraged by the utility's efforts. It is important for utilities to have contingency planning and an emergency preparedness plan. Upon completion of the O&M Manual, the Board encourages the utility to review its procedures to test contingencies, including formal staff training and exercise, and to continue to review its emergency prepared procedures on a regular basis.

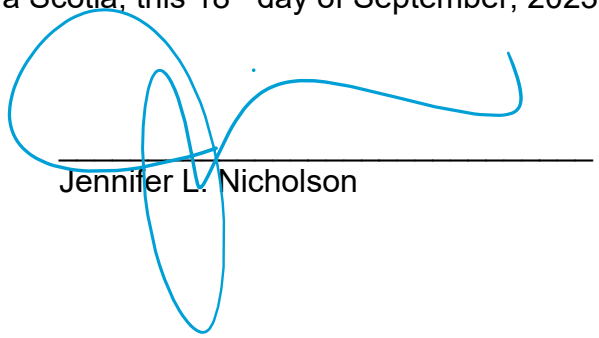
VIII CONCLUSION

[65] The Board approves the Rates and Charges, including the public fire protection charge, effective October 1, 2023, April 1, 2024, and April 1, 2025, as shown in Schedules A, B, and C, as received by the Board in the revised rate study filed in response to Undertaking U-1. As noted above, the approved public fire protection charge is based on six months at the current rate and six months at the rate calculated for 2023/24 in the rate study filed in response to undertaking U-1.

[66] The Board approves the Rules and Regulations, effective October 1, 2023, as requested by the applicant and shown in Schedule D.

[67] An Order will issue accordingly.

DATED at Halifax, Nova Scotia, this 18th day of September, 2023.



Jennifer L. Nicholson