


**NOVA SCOTIA UTILITY AND REVIEW BOARD**

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

- and -



**IN THE MATTER OF AN APPLICATION** by the **MUNICIPALITY OF THE COUNTY OF CUMBERLAND**, for an Order approving the service territory of the proposed **PUGWASH WATER UTILITY**, and for approval of an Interim Schedule of Rates and Charges for Water and Water Services and Schedule of Rules and Regulations

**BEFORE:** Steven M. Murphy, MBA, P.Eng., Member

**APPEARING:** **MUNICIPALITY OF THE COUNTY OF CUMBERLAND**

Gerry Isenor, P.Eng.  
G.A. Isenor Consulting Limited

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

Justin Waugh-Cress, P.Eng.  
Director of Engineering and Operations

Andrew MacDonald, CPA, CGA  
Director of Finance

**INTERVENORS:** Dale Mills  
Marilyn Sexton

**HEARING DATE:** November 3, 2017

**UNDERTAKINGS:** November 10, 2017

**DECISION DATE:** **January 26, 2018**

**DECISION:** **Interim Schedule of Rates and Charges, and Schedule of Rules and Regulations, as amended by the Utility, approved for a two-year period, subject to Board review after one year. Utility Service Territory approved.**

## I SUMMARY

[1] The Municipality of the County of Cumberland (Municipality, County, Applicant) applied to the Nova Scotia Utility and Review Board (Board) for an Order approving the service territory of the proposed Pugwash Water Utility (Utility), as well as the Utility's Interim Schedule of Rates for Water and Water Services and its Schedule of Rules and Regulations pursuant to the *Public Utilities Act*, R.S.N.S. 1989, c. 380 as amended (*Act*). The Utility is new and will be established by the Municipality, which also currently owns and operates water utilities in Parrsboro and Springhill.

[2] A rate study (Rate Study) to support the Application dated June 5, 2017, was prepared by G.A. Isenor Consulting Limited, in association with Blaine S. Rooney Consulting Limited, and was submitted to the Board on June 16, 2017. The Application, Motion of Council and Affidavit attached to the Rate Study were subsequently amended and refiled on July 11, 2017. This was done to clarify that the Municipality was not only seeking Board approval of the Utility's interim rates and rules and regulations, but was also requesting Board approval to establish the Utility. In a separate filing, dated July 20, 2017, the Applicant revised the proposed effective date of the initial interim rates from October 1, 2017 to January 1, 2018. However, due to construction delays associated with the new Pugwash water system, the start-up of the system has been postponed until the Spring of 2018. As such, in response to the Undertakings, the Schedule of Rates for Water and Water Services was further revised by the Applicant to reflect an effective date for interim rates of April 1, 2018.

[3] In a letter to the Applicant dated July 28, 2017, the Board clarified it is not within its legislated mandate to approve the establishment of a utility, but it does have the

authority to approve the service territory of a utility. The letter further explained that the Board's review of this matter will be limited to the issues of the proposed service territory and the Interim Schedule of Rates and Charges for Water and Water Service and Rules and Regulations.

[4] Information Requests (IRs) were issued by Board staff on July 31, 2017. There were two formal intervenors in the proceeding: Dale Mills and Marilyn Sexton, each acting on their own behalf. Mr. Mills and Ms. Sexton issued IRs to the Applicant on August 22 and August 23, 2017, respectively. Responses to all IRs were filed by the Applicant on September 6, 2017. In response to Board IRs, the Applicant filed a revised Rate Study (Revised Rate Study) which corrected errors in the original filing. These included corrections to the calculation of the annual depreciation expense, the classification of capital additions, and the description of the funding sources for the capital projects. The Revised Rate Study further amended the proposed Regulation dealing with Service Pipes.

[5] The Application proposed interim rates for fiscal years 2017/18, 2018/19, and 2019/20 (Test Years, Test Period). For 5/8" meter residential customers, based upon estimated quarterly water consumption, the Application proposed an average quarterly bill in 2017/18 of \$113.101, with proposed increases in each of 2018/19 and 2019/20 of 2.1%, and 1.4%, respectively. For all other metered customers (i.e., 1", 1.5" and 2"), based upon estimated consumption volumes for each meter size, the Application proposed average quarterly water bills in 2017/18 ranging from \$277.41 to \$880.18, depending on the meter size. The Application proposed increases in these rates ranging from 3.2% to 3.5% in 2018/19 and 2.6% to 2.8% in 2019/20.

[6] Corrections included in the Revised Rate Study resulted in increases to the annual depreciation expense and base charges in each of 2018/19 and 2019/20. As a result of these amendments, the proposed increases in the average bill for the Utility's customers were more than had been originally proposed and advertised for each of the second and third Test Years. These proposed increases range from 5.7% to 6.9% in the second Test Year and 10.0% to 11.2% in the third Test Year. Unless otherwise indicated, it is the Revised Rate Study which is referenced in this Decision.

[7] The Utility does not have fire protection capability, and, therefore, no rates for public fire protection were proposed.

[8] A public hearing was held at the Municipality's Council Chambers in Upper Nappan on November 3, 2017, after due public notice. During the hearing, the Applicant noted that, in error, the Notice of Public hearing was only published on three of the four dates listed in the Board's July 28, 2017 Order. However, as confirmed in the response to the Undertakings, notification of the public hearing was also included on the Municipality's and Village of Pugwash (Village)'s web pages. The Board accepted this as sufficient notice for the public hearing. Gerry A. Isenor, P.Eng., of G.A. Isenor Consulting Limited, and Blaine S. Rooney, CPA, CA, of Blaine S. Rooney Consulting Limited, represented the Applicant. The Applicant was also represented by Municipality staff: Justin Waugh-Cress, P.Eng., Director of Engineering and Operations, and Andrew MacDonald, CPA, CGA, Director of Finance.

[9] The two formal intervenors in the proceeding, Dale Mills and Marilyn Sexton, each filed evidence with the Board on September 20, 2017. Both Board staff and the Municipality issued IRs to Ms. Sexton on September 22, 2017, and September 26,

2017, respectively, to which responses were received on October 11, 2017. The Intervenor did not attend the public hearing. There were no further requests to speak or letters of comment received by the Board with respect to the matter.

[10] The Interim Schedule of Rates, as amended and requested by the Utility in the Undertakings, are approved for a two-year period. After the two-year interim period, a new rate hearing will be required to establish final rates. The interim rates will, however, be subject to a review by the Board at the end of the first Test Year. This review will be used to determine whether the interim rates remain appropriate for the second Test Year, or whether a new rate hearing will be required prior to the end of the second Test Year. If, for some unforeseen reason, final rates are not approved by the Board before April 1, 2020, the interim rates will remain in effect until the final rates are approved.

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

[12] A map depicting the Utility's proposed service territory was provided in response to the Undertakings. The Board approves the Utility's service territory, as depicted on this map, and attached to the Board Order.

## **II INTRODUCTION**

[13] In response to Board IRs, the Municipality explained that private wells within Pugwash presented water quality issues. Past well water quality tests revealed the presence of iron, manganese and salt in the drinking water, with more recent testing indicating that many wells contained arsenic (a known carcinogen) and uranium, in concentrations that exceeded the Canadian Drinking Water Quality Guidelines

(CDWQG). The Municipality considered these water quality issues to present a public health concern, and therefore took steps to source infrastructure funding for a new central potable drinking water system to serve residents of the Village area. In moving forward with the new central water system, the Municipality approved the establishment of the Pugwash Water Utility. The Utility will be owned and operated by the Municipality. Since the Utility is new, it has no operating history.

[14] In July 2015, it was announced that funding for the Pugwash central water servicing project had been secured through the New Building Canada Fund (NBCF), with 1/3 of the funding from the Federal Government and 1/3 from the Provincial Government. The remainder of the cost is funded by the Municipality, through a capital cost contribution, a local improvement charge (LIC) levied by the Municipality to property owners whose properties front the system, and through Utility debt.

[15] The capital cost included in the Revised Rate Study for construction of the infrastructure to provide central water service to the Village and surrounding areas is \$12.026 million. The Municipality noted that the tenders received for the original service area were approximately \$3 million under the original project cost estimate. As such, the Municipality opted to include portions of the Pugwash Point Road and Gulf Shore Road (the expanded area) in the project scope. The central water system consists of a wellfield source of supply, including three production wells, located approximately eight kilometers from the Village. The water will be piped from the wells to a treatment plant, where it will be treated to meet the CDWQG, and disinfected to meet Nova Scotia Environment Guidelines. The treated water will be pumped from the treatment plant to an above ground reservoir. It will then be fed by gravity through a transmission and distribution

system to the residents within the Utility's service territory. A map of the proposed service territory was provided in response to the Undertakings.

[16] The Intervenors' concerns primarily centered on the decision of Municipal Council to extend the water system to provide service to the expanded area. The capital cost of this portion of the overall central water servicing project is \$1,064,000. The Intervenor's evidence specifically identified their concerns related to: the LIC of \$4,054 per property; the reasons for the extension; the number of residents wanting the extension of service; the cost of private service laterals to connect to the system; and the impact of the treated water on their septic systems.

[17] The central water system does not include fire protection capacity. The Applicant noted that provision of fire protection capacity would have resulted in an additional estimated capital cost of almost \$2 million. Based upon a review of the past performance of the Pugwash Fire Department, the Municipality decided that a Utility based fire protection system would provide little benefit to the area. The Utility's water system does, however, include eight fire hydrants for flushing purposes, which will also be able to supply a limited amount of water in emergency situations to refill Fire Department tankers.

[18] The Revised Rate Study is based on an estimated 293 Utility customers in the first Test Year, out of a total of 386 potential customers. This is projected to increase to 312 customers in the second Test Year and 331 customers in the third Test Year. All customers are to be metered. In response to Board IRs, the Applicant indicated that the estimated number of customers in each of the Test Years is based upon local knowledge, public feedback received during meetings, and the number of homes with poor quality

well water. The accuracy and confidence in the estimates, and the related impact on rates, was an issue identified in the proceeding.

[19] The Application was presented to the Board based upon the need for the new Utility to implement rates to meet its projected financial requirements. This includes funding projected operating costs and the necessary capital infrastructure to provide water to the proposed service area.

### **III REVENUE REQUIREMENTS**

#### **(A) Operating Expenditures**

[20] Because the Utility is new, it has no operating history upon which to base projections of its operating expenses. The Rate Study, which calculates rates on a break-even basis, stated that the estimated operating budgets were prepared by Municipal Staff with input from consultants. During the hearing, Mr. Isenor explained that information from similar sized utilities in the Province with groundwater sources was also relied upon to develop the budgets. He also noted that he felt confident the operating cost estimates for the Test Years were realistic.

[21] In response to Board IRs, the Applicant explained why an interim rates Test Period of three years was proposed, as opposed to a one-year period to gain experience with costs. The Applicant's IR response stated that three years was selected mainly to avoid the need for another rate application in a year. The Applicant further noted that this is a small utility with new infrastructure and a straight-forward treatment and delivery process, which allows for operating cost estimates to be based on the volume of water used. It added that the largest risk facing the Utility is with respect to the number and



timing of customers who connect to the system. During the hearing, in response to the Board's inquiry regarding use of a three-year period for interim rates, Mr. Isenor stated:

CHAIR: So I guess I just want to understand a bit further the concern from the Board is that three years might be a little too long for a ---

MR. ISENIOR: Right.

CHAIR: --- for an interim rate period.

MR. ISENIOR: Right. We did have that final sentence there in hopes of allaying that fear, that is the utility will monitor the revenue and costs over the next three years for the necessity of further re-application during that time.

CHAIR: Right.

MR. ISENIOR: So in other words if we end up at the end of the first year with a hundred customers instead of 200 and some then we may well be filing for an early rate review ---

...

CHAIR: A two year period would presumably give you better ---

MR. ISENIOR: It would be better. What we tried to do when we did the estimates of cost is we tried to put that out of our heads so if anything our costs may be slightly higher than what they'll actually come in at.

...

CHAIR: And I guess if there was -- if the Board opted to go for a one year period for interim rates after which a new rate study would be filed in that first year if there was in fact warranty related costs those costs would[n't] (sic) necessarily show up in the cost of the utility. So I guess in that first year those costs that might show up to the utility could be lower than what necessarily might be reflected in the utility?

MR. ISENIOR: Yeah I would suggest to you that I don't think one year would be that reliable for a new utility. I think if we had an operating utility we could say that you know we'll carry on but on this one I would be hesitant to think the first year would be representative. First of all I mean we won't have all of our customers on day 1.

[Transcript, pp. 24-27]

[22] The Rate Study projects an annual 3% increase in all operating expenses in each of the final two Test Years. Further details with respect to several of the operating expense items were provided in response to Board IRs. During the hearing, the Board further questioned the magnitude of the estimated reservoir maintenance expense, which, at \$10,000, appeared higher than other maintenance items, particularly considering that

it is a newly installed tank. In response to the Undertakings, the Applicant explained that this budget item is based upon other similar sized utilities, and includes snow removal for the remote location, site maintenance, and maintenance of the solar panel and roof mounted light. It added that the expense for all items, including this item, will be monitored and adjusted accordingly in future rate applications.

[23] The projected depreciation expenses in the Test Years is based upon the phase-in of the full depreciation associated with the \$12,026,225 capital cost in 2017/18 for the required Utility infrastructure assets. The depreciation rates used to calculate the asset depreciation expense in each Test Year are generally as set out in the *Water Utility Accounting and Reporting Handbook (Accounting Handbook)*. In cases where the depreciation rates differ from the *Accounting Handbook*, the Applicant explained that such variations were needed for rate design purposes to maintain an appropriate base charge over the Test Years.

[24] With respect to water treatment plant equipment, wellfield pumping equipment and the Utility's SCADA system, the Board questioned why depreciation associated with these items was allocated to "Structures and Improvements" rather than "Equipment". This issue concerned the Board, as depreciation rates for "Structures and Improvements" are typically lower than those for "Equipment". As a result, these items could be depreciated over a term longer than their typical useful lives. The Applicant indicated that it is likely the final allocation of costs for these items will include some costs for Equipment, and will be included in the final accounting of costs and adjustments made during the next rate study.

[25] In order to avoid rate shock over the Test Period, the Application proposed phasing-in the full depreciation expense. The proposed depreciation phase-in the first Test Year was structured to allow full depreciation expense only on small purchases and the Rate Study. The Applicant noted that in the first Test Year there is a contractors' warranty on most of the new water system equipment, and, therefore, the only depreciation included in that year is associated with items which would not be covered by the related warranty period. An additional 7% and 10% of the total depreciation expense associated with source of supply, water treatment, storage, and transmission and distribution was proposed in the second and third Test Years respectively. This would bring the total recognized depreciation expense at the end of the third Test Year to 17% of the full depreciation expense associated with source of supply, water treatment, storage, and transmission and distribution. The Applicant further noted that the remaining 83% of the full depreciation on the Utility's assets would be phased-in as a part of future rate applications. The Applicant also proposed that amortization of capital cost contributions from outside sources be phased-in on the same basis as the depreciation.

[26] The Applicant's response to Board IRs stated that since the majority of the new infrastructure, such as piping, reservoir and wells, have a long life expectancy, the Applicant proposed to slowly phase-in depreciation. It explained that the proposed phase-in of depreciation was for rate design purposes, to facilitate modest rate increases in the Test Years as new customers connect to the system. The specific rate of depreciation phase-in was selected to achieve interim rates that reflect the average rate of \$120 to \$130 per quarter paid by customers of other Nova Scotia water utilities.

[27] The annual depreciation expense in each of the Test Years, as corrected in the Revised Rate Study, are \$6,033, \$22,278 and \$45,485, respectively. The Applicant noted that if full depreciation was used (i.e., no phase-in) in accordance with the *Accounting Handbook*, the annual depreciation expense for each Test Year would be \$238,101. In the response to the Undertakings, the rates calculated with this full depreciation were shown to be more than double those proposed with the phase-in. This would represent approximately \$125 to \$165 per quarter more for residential (5/8" meter) customers, and significantly more for the larger meter sizes.

[28] During the hearing, the Board questioned what the depreciation phase-in would be if the rates for residential customers were set at approximately \$150 per quarter. Mr. Rooney commented that the calculation could be done, but he defended the proposed reduced depreciation used in the Revised Rate Study, noting that with the new system there would be very little deterioration in the first few years.

### **Findings**

[29] The Pugwash Water Utility is new, with no history of operations, which presents challenges in preparing operating budgets. The Utility has indicated that its projected operating expenses presented in the Revised Rate Study are based upon comparisons with other Nova Scotia utilities of similar size and operating characteristics. Further information in support of the budgeted figures was provided in response to Board IRs and the Undertakings. Based upon the information provided, the Board accepts the budgeted operating expenses in the first Test Year. The Board further finds the projected 3% annual increase in operating expenses to be reasonable.

[30] The Board typically has concerns when full depreciation of assets is not included in a utility's revenue requirements. This concern relates to the negative impact that such a practice has on a utility's depreciation fund and its ability to fund future capital infrastructure replacements. However, in this case, the Utility's infrastructure, most of which is funded from external sources, is new, with the most significant cost items covered by a warranty in the first year. Applying full depreciation would more than double the Utility's revenue requirements, and have a significant impact on rates, which could act as a barrier to attracting potential customers. The Board, therefore, finds the Utility's proposed phase-in of depreciation to be reasonable. However, during the next rate study, the Board encourages the Utility to assess phase-in of the remaining 83% of depreciation as soon as possible.

[31] While the Board accepts the projected operating expenses including depreciation as presented in the Revised Rate Study, there is still a level of uncertainty with these projections. This uncertainty primarily relates to the number of customers that will connect to the system over the Test Period. In addition, the Applicant has acknowledged that some re-allocation of capital costs from "Structures and Improvements" to "Equipment" will be needed. This will have an impact on annual depreciation expenses. As such, the Board has concerns with the proposed three-year Test Period for interim rates. The Applicant has stated that the warranty costs and timing of customer connections would likely make a one-year Test Period unrepresentative of typical Utility operations. The Board agrees with this assertion. However, the Board believes that a three-year interim rate period is too long. Therefore, the Board approves a two-year interim rate period. After the two-year interim period, a new rate application

will be required to establish final rates. If, for some unforeseen reason, final rates are not approved by the Board before April 1, 2020, the interim rates will remain in effect until the final rates are approved.

[32] The interim rates will, however, be subject to a review by the Board at the end of the first Test Year. Accordingly, the Board directs the Utility to file updated Operating Worksheets B-1, B-2 and B-2a/2b/2c/2d/2e at the end of the first year of operating the Utility. These Worksheets are to show the comparison of the actual first year operating revenues and expenses with the first-year operating budget as presented in the Revised Rate Study. The Utility is also to file a report describing the number of customers who have connected to the system in the first year compared to the corresponding estimate in the Revised Rate Study. All this information is to be filed by May 31, 2019. The Board's review of this material will be used to determine whether the interim rates remain appropriate for the second Test Year, or whether a new rate application will be required prior to the end of the second Test Year.

**(B) Capital Budget and Funding**

[33] The Revised Rate Study includes 2017/18 capital costs associated with the necessary assets to establish the Utility, totalling \$12,026,025. In addition to the new system's structures and mains, these costs include the water rate study (\$10,000) and transportation equipment (\$27,000). In response to Board IRs, the Applicant explained that the infrastructure costs are based upon the summary of all costs incurred to date (as of the IR responses submission on September 6, 2017), plus the estimated project completion costs. During the hearing, the Applicant further confirmed that final expected project capital costs will be consistent with those presented in the Revised Rate Study:

CHAIR: ...So my question is has there been any significant extra claims on the project beyond when the rate study was prepared, the revised rate study was prepared?

MR. WAUGH-CRESS: The numbers in the rate study are still consistent but we're expecting there's been no significant extras just ---

CHAIR: So still -- so the project is on budget, you don't expect it to come in significantly under or over budget or beyond the numbers that are presented in the revised rate ---

MR. WAUGH-CRESS: It'll be consistent with the numbers presented in the rate study.

[Transcript, p. 56]

[34] Mr. Isenor noted during the hearing that due to severe weather in the USA there will be a delay in the water treatment equipment being received by the Utility. This will result in the start up of the system being delayed until the Spring of 2018.

[35] No other capital works were proposed in the final two Test Years.

[36] The Rate Study identified the funding source for the capital items as:

Outside Sources	\$10,499,314
Long Term Debt	\$ 26,903
Capital Contribution from Potential Customers	<u>\$ 1,500,008</u>
	\$12,026,225

[37] The Applicant confirmed that the Outside Sources of funding have been approved by all three levels of government (1/3 Federal, 1/3 Provincial and 1/3 Municipal). In response to Board IRs, the Applicant noted that the amount identified as Capital Contribution from Potential Customers (\$1,500,008) should be included in the Outside Sources amount. This amount is part of the Municipality's 1/3 funding amount, and will be collected by the Municipality directly from potential customers. The funding was, therefore, updated in the Revised Rate Study to reflect Outside Sources as \$11,999,225 and Long Term Debt as \$27,000. The corresponding long term debt expense is based upon 5.0% interest and a 15-year term.

[38] The Applicant explained that the \$1,500,008 portion of funding from the Municipality is based upon a \$4,054 LIC per lot for each of the potential 370 residential

customers with properties fronting the water system within the Utility's service area. It added that the related property owners will be required to pay the LIC regardless if they connect to the water system. This charge was communicated to residents early in the process, as indicated in the Village's "It takes a Village" newsletter dated September 2015 which, was attached to Ms. Sexton's evidence.

[39] This per lot LIC was the focus of much of the evidence presented by each of the Intervenors, who reside in the expanded area. Mr. Mills requested in his evidence that the LIC only be charged if the property owner connects to the system, and that residents not be forced to connect to the water system. Ms. Sexton's evidence looked at the affordability of the LIC, in terms of the other charges levied by the Municipality and proposed by the Utility. In his IRs, Mr. Mills asked the Municipality why the funds that are to be collected by the LIC were not included as a part of the Utility's revenue requirements in the calculation of Utility customer rates. The Municipality responded as follows:

The funds received from the charge are included in the application as funds provided by the Municipality (see revised rate study). The LIC is charged by the Municipality and is regulated by the provisions of the Municipal Government Act and is independent of the setting of water rates. Water rates are regulated by the provisions of the Public Utilities Act based on all the funding available to the water utility including the funds provided by the Municipality from the LIC.

[Exhibit P-6, IR-47]

Furthermore, in a letter to Ms. Sexton from the Municipality dated April 13, 2017, and attached to Mr. Mills' evidence, Mr. Isenor is quoted as saying:

... Generally when a new Municipal water main is extended across the street frontage of a property in Nova Scotia, property owners who have access to the water main service are expected to contribute to the cost of the water main at a rate determined by the Municipal Unit.

[Exhibit P-9, p. 37]

[40] With the proposed phasing-in of depreciation, as described above, and the corrected calculations in the Revised Rate Study, the Utility's depreciation fund balance is expected to be \$74,226 at the end of the final Test Year (2019/20). The Applicant



noted that if the full depreciation was taken in each Test Year, the balance would be \$723,269.

### **Findings**

[41] The Board has considered the information provided. The Municipality identified the supply of safe, potable drinking water provided through a centralized system, as a priority for the area, and was successful in securing significant external funding for the project. The lower than expected tender price for the original service area allowed the system to be extended to the expanded area. The decision to proceed with the project and establish a water utility was one made by the Municipality. The Board has no legislated mandate or authority to review this decision of Municipal Council.

[42] The Utility's capital budget for the Test Period contains one major project in the first Test Year to construct the assets needed to establish the Utility and provide water service.

[43] The Utility has proposed no capital projects for the final two Test Years. The Board finds this reasonable, as the entire water system will be new after the end of 2017/18 and, as such, will likely not require any replacement over the final two Test Years.

[44] The LIC will be levied by the Municipality to all property owners who own land that fronts the water system, regardless of whether these property owners choose to connect to the water system. The Board understands the Intervenors' concerns regarding the LIC. However, the LIC is a charge levied directly by the Municipality (not the Utility), and, is therefore, outside of the Board's jurisdiction. Therefore, the Board has no legislated mandate or authority to review the amount of the LIC or how it is administered by the Municipality. Instead, in this Matter the Board is responsible for

reviewing the Utility's projected operating and capital costs, and establishing fair and reasonable interim water rates that will sufficiently cover these costs. The Board notes that neither the Municipality nor the Utility can force property owners to connect to the system.

[45] With respect to the proposed capital budget over the Test Years, the Board finds the asset additions and funding to be reasonable and approves them as presented in the Revised Rate Study. Although the proposed depreciation phase-in is approved, for future applications the Board reminds the Utility of the importance of maintaining a healthy depreciation fund balance for future asset replacement requirements.

**(C) Non-Operating Revenues and Expenditures**

[46] The Utility has no non-operating revenue projected in any of the Test Years. However, the Test Years' revenue requirements identified in the Revised Rate Study include projections of non-operating expenditures. These include expenses associated with the long-term debt repayment for the Utility's portion of the new water system's capital cost. The associated annual interest and principal payments total \$2,167 in each of the Test Years.

[47] In response to the Undertakings, the Applicant filed corrections to the "unamortized capital cost contribution" amounts which are used in the calculation of the rate of return on rate base. The new Utility is funding only \$27,000 of its total infrastructure cost of \$12,026,225, and the remaining \$11,999,225 is funded externally. Given this high proportion of external funding coupled with a minimal amount of related amortization expense over the Test Years, the resultant rate of return on rate base is artificially high at 8.92%, 10.03% and 81.60% in each of the Test Years respectively.

## **Findings**

[48] The Board finds the Utility's projected non-operating expenditures related to long term debt repayments to be reasonable, and accepts them as presented.

[49] As noted above, most of the Utility's assets are funded from external sources, with very little related amortization expense over the Test Years. In such a case, the return on rate base calculation does not provide useful information on the Utility's financial position. Nevertheless, the Board accepts the calculated rates of return on rate base, as presented in the Undertakings.

### **(D) Allocations of Revenue Requirement - Utility Customers**

[50] Since the Utility is not providing public fire protection, its projected revenue requirement is to be recovered solely from customer rates.

[51] The Application noted that the allocations used for the base, customer, delivery, and production charges are consistent with the guidelines set out in the *Accounting Handbook*, except for the allocation for transmission and distribution expense. In the *Accounting Handbook*, the suggested allocation for transmission and distribution expense is 100% to delivery. In the Revised Rate Study, the allocation has been set as 75% to base and 25% to delivery in the first Test Year, 60% to base and 40% to delivery in the second Test Year, and 50% to base and 50% to delivery in the final Test Year. The Applicant noted that these allocations were proposed for rate design purposes to maintain the revenue from the base charge at approximately 50% of total rate revenue. This was done to reduce the revenue risk associated with the small utility, noting that both the number of customers and consumption over the Test Years have been estimated.

[52] During the hearing, the Board noted that the allocations for depreciation and return on rate base were 100% to the base charge, rather than 40% to base, 30% to delivery and 30% to production as per the *Accounting Handbook*. Mr. Isenor explained these allocations as follows:

MR. ISENER: That's one that gets moved around the province you'll realize as you go. It's 100 percent in a lot of places. It's 40/30/30 in some. So for whatever reason when I started doing this with Bill 100 percent to base was the standard. And it's now been shifted to -- a bit more to agree with the handbook but it is a variable around the province. It's not a consistent.

...

CHAIR: But I just want to understand the rationale for having it 100 percent. Is it again for keeping the base charge ---

MR. ROONEY: Yeah that's to maintain that base charge.

MR. ISENER: It's a rate design issue.

[Transcript, pp. 63-64]

[53] The Application stated that the Utility has 386 potential customers, consisting of 370 residential (5/8" meter size) customers and 16 commercial customers, with 1", 1.5" or 2" meter sizes. In the first Test Year, the Applicant projected that 278, or 75%, of the potential residential customers will connect to the system, and all but one of the commercial properties will become Utility customers. This would give a total of 293 customers in the first Test Year. This is projected to increase to 312 and 331 total customers in the second and third Test Year respectively, with the number of residential customers increasing to 296 and 315 in each respective Test Year. Mr. Isenor explained that the Applicant believes these projections are reasonable, given the community's current individual well water quality issues.

[54] The Intervenors' evidence suggested that the number of projected water system connections identified in the Application was unrealistically high. This was a topic of further discussion during the hearing. In response to Board questions, Mr. Isenor

stated that the Utility has no mechanism to confirm how many property owners will become Utility customers. Mr. Waugh-Cress added that the project has not yet progressed to the point that service laterals (from the property line to an individual premises) have been installed. Mr. Rooney also stated that he believed the biggest risk to the Utility is the number of customers who will connect. He explained that part of the reason for keeping the rates at the proposed level, which he recognizes is below the full depreciation cost, is to provide an incentive for property owners to become Utility customers:

CHAIR: But I guess my question was I was curious if we were to go rather than a one thirty rate, went with 150 per quarter do we know what the depreciation phase in would be?

...

MR. ROONEY: ...this is a brand new utility and the big -- one of the hugest, largest risks I think this utility faces is getting customers to sign up. So not that we're sort of you below costs, or not recognize the full cost but you know part of the reason of being able to sell it as the average rate was making an incentive for customers to sign up because the quicker we get the customer to sign up the more you -- the more valuable this utility will become...

...

--- it's a matter of trying to make it attractive -- as attractive as we can for them to hook up because that's the biggest risk of the utility.

[Transcript, pp. 38-42]

[55] Given the uncertainty associated with the number of customers, the Utility provided an Undertaking presenting the calculation of water rates with 50 less projected customers in each of the Test Years. The response indicated that in such a case, the average rates for residential customers would be approximately \$22 greater per quarter than those proposed in the Revised Rate Study.

[56] The Application estimated the water consumption for each meter sizes for each Test Year. In response to Board IRs, the Applicant explained that the projected annual residential (5/8" meter size) consumption volume of 200 cubic metres in the first Test Year was estimated based upon the experience of other water utilities in the Province

that had installed water meters. The estimates for the other meter size consumption volumes were based upon customers in other water utilities with similar land uses, such as schools.

[57] The Revised Rate Study projected that the annual residential consumption volume will decline by 2% per year for the second and third Test Years. This is based upon the general trend for water consumption observed across the Province. No change is projected in the consumption volume over the Test Years for the other meter size customers.

### **Findings**

[58] As this is a new Utility, with no historical information regarding expenses, number of customers and consumption volumes, the Board accepts the Applicant's proposed revenue requirement allocations, with the goal of maintaining approximately half of the revenue from the base charge. The Board further accepts the estimated average consumption volumes, based upon the experience of other utilities, and the projected annual 2% decline in consumption for residential customers, which is a trend experienced in other utilities. However, the Board expects the Utility to review these allocations and volumes, and adjust them accordingly in the next rate application. These adjustments are to be based on the Utility's own operating experience over the interim rate period.

[59] The Board has concerns with respect to the projected number of Utility customers, particularly in terms of the Utility's ability to generate enough revenue from rates to recover its costs. The Board notes that the calculation of rates with 50 less customers for each Test Year results in average quarterly residential customer rates of

approximately \$135, \$141 and \$153, respectively. This would amount to quarterly residential rates that are roughly \$22 more per quarter than proposed. Use of these higher rates with a lower customer number may provide a “cushion” to the Utility, thereby perhaps helping to mitigate the risk associated with the number of actual customer connections. However, the Board has also considered the Applicant’s comments with respect to lower rates being an incentive for property owners to connect to the system.

[60] As noted previously in this Decision, given the risks and uncertainty associated with the number of customers who may connect to the system, the Board is only prepared to accept a two-year interim rate period. Therefore, the Board approves the interim customer rates, as presented in the Revised Rate Study, for the first two Test Years only. After the two-year interim period, a new rate application will be required to establish final rates. The interim rates will also be subject to a review by the Board at the end of the first Test Year (the specifics of which are discussed previously in this Decision).

#### **(E) Schedule of Rates and Charges**

[61] In addition to the rates for water supply to its customers, the Application proposed several miscellaneous rates and charges. The Applicant explained that the charges proposed are similar to those of other Nova Scotia water utilities, including Parrsboro and Springhill, and are based upon recovering the estimated cost of providing the associated service.

#### **Findings**

[62] The Board finds that the proposed miscellaneous charges are reflective of those of other water utilities and accepts them as filed for the first two Test Years.

[63] The Schedule of Rates and Charges are approved for the first Two Test Years, effective dates of April 1, 2018, and April 1, 2019, respectively.

**(F) Schedule of Rules and Regulations**

[64] The Application included a proposed Schedule of Rules and Regulations, which Mr. Isenor explained is based upon those approved for other Nova Scotia water utilities, including the utilities of Parrsboro and Springhill, which are owned by the Municipality.

[65] In response to Board IRs, the Applicant revised proposed Regulation 25 'Service Pipes' to specify that the portion of the service pipe in the street from the main to the street line will be paid by the Municipality, with the remainder of the lateral's cost being the customer's responsibility. Mr. Isenor explained that this is to be done as a part of the collection of the LIC from customers.

[66] The cost of service lateral construction was one of the issues identified by the Intervenors. They noted that the homes in the expanded area are generally on larger properties than in the Village, and therefore the length and cost of a service lateral to connect to the system would be significantly more than for connections within the Village.

**Findings**

[67] The Board finds that the proposed Schedule of Rules and Regulations are reasonable, and are generally consistent with those of other Nova Scotia water utilities. The Board approves the Schedule Rules and Regulations, including the revision to 'Service Pipes', as filed in response to Board IRs. The amended effective date of the Schedule of Rules and Regulations is April 1, 2018.



[68] The Board notes the comments of the Intervenors with respect to the added cost for property owners associated with service lateral construction in the extended area. This cost will only be incurred if a property owner becomes a customer of the Utility, and could act as a deterrent to connection. This is another risk factor the Board has considered in finding that a two-year interim rate period is appropriate. Nonetheless, the Utility is only responsible for service pipe costs within the public right-of-way. The extension of service pipes from the street line to individual premises is the responsibility of individual property owners.

**(G) Service Territory**

[69] In response to Board IRs, the Applicant provided a description of the proposed service territory for the Utility, as well as map of the system and the Village boundaries. In response to the Undertakings, the Applicant provided an additional map that delineated the Utility's proposed service area boundary.

**Findings**

[70] The proposed service territory depicted on the map included with the responses to Undertakings encompasses the area that will be serviced by the Utility's new water system. As such, the Board approves the Utility's service territory, as depicted in the response to the Undertakings.

**(H) Utility Water Supply Effects on Existing Septic Systems**

[71] Ms. Sexton's evidence suggested that chlorine from the Utility's central water supply would seemingly destroy bacteria in the expanded area's septic systems. Board staff issued an IR to Ms. Sexton asking her to provide evidence to support this

claim. In response, Ms. Sexton indicated that this claim was supported by conversations she had with her neighbors, as well as a website for which she provided a link.

### **Findings**

[72] Under Section 52 of the *Act*, the Board has authority to review Utility operations to ensure service is provided in a reasonably safe manner. The issue of whether chlorine from Utility supplied water could harm existing septic systems could present a safety concern. As such, the Board has considered Ms. Sexton's claim.

[73] The Board finds that Ms. Sexton's evidence and IR responses concerning this issue are anecdotal at best. Furthermore, the website referenced by Ms. Sexton states the following:

... At sufficient concentrations chlorine in soils kills important soil bacteria necessary for both the break-down of other contaminants and for healthy plant life.

... high levels of chlorine, such as from an improperly adjusted or malfunctioning chlorinator would be a problem for the occupants who would not want to be drinking such water, and might be a problem for the septic system too.

[Exhibit P-10, p. 2]

There is no indication in these references as to what concentration of chlorine would kill important soil bacteria or damage septic systems, nor what the concentration of chlorine would be expected in the water supplied by the Utility. In addition, the references simply say that high chlorine concentrations "might" be a problem for septic systems.

[74] As such, the Board finds that there has been no evidence presented to support the claim that water supply from the Utility will harm existing septic systems.

### **(I) Contingency Planning**

[75] In response to Board IRs, the Applicant provided general information on its efforts related to contingency planning and emergency preparedness. It noted that it has

a plan in place with the Municipality's Emergency Management Department, and that through its coordinator, a specific plan will be developed and implemented for the Utility.

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

#### **IV CONCLUSION**

[77] Given some of the uncertainties in the Utility's Revised Rate Study projections, the Board approves the proposed interim rates for a two-year period only. The Board approves the Schedule of Rates for Water and Water Services as proposed by the Applicant in the responses to Undertakings, with effective dates of April 1, 2018, and April 1, 2019. After the two-year interim period, a new rate application will be required to establish final rates. If, for some unforeseen reason, final rates are not approved by the Board before April 1, 2020, the interim rates will remain in effect until the final rates are approved.

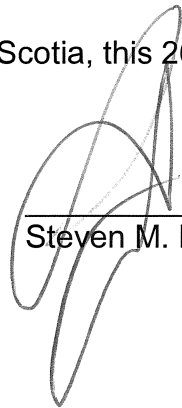
[78] The Utility is directed to file updated operating expense worksheets (Worksheet B1, B2 and B2a/2b/2c/2d/2e) at the end of the first year of operations, showing the comparison of actuals with the Revised Rate Study projections. The Utility is further directed to file a report describing the number of customers who connected to the system in the first year compared to the Application projections. All this information is to be filed by May 31, 2019. The Board's review of this material will be used to determine whether the interim rates remain appropriate for the second Test Year, or whether a new rate hearing will be required prior to the end of the second Test Year.

[79] The Board approves the Schedule of Rules and Regulations as proposed, and amended by the Utility in response to the Undertakings, with an effective date of April 1, 2018.

[80] The Board approves the Utility's service territory as set out in the response to the Undertakings, and as attached to the Board Order.

[81] An Order will issue accordingly.

**DATED** at Halifax, Nova Scotia, this 26<sup>th</sup> day of January, 2018.



Steven M. Murphy