

**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 LUNENBURG**, on behalf of its **WATER UTILITY**, for Approval of Amendments to its Schedule of Rates and Charges for Water and Water Services and its Schedule of Rules and Regulations

**BEFORE:** Kulvinder S. Dhillon, P.Eng., Member

**APPEARING:** **TOWN OF LUNENBURG**  
Gerry Isenor, P.Eng.  
G.A. Isenor Consulting Limited  
  
Blaine Rooney, CPA, CA  
Blaine S. Rooney Consulting Limited  
  
Elana Wentzell, CPA, CMA  
Former Finance and Accounting Director  
  
Marc Belliveau, P.Eng.  
Town Engineer

**HEARING DATE:** April 19, 2016

**UNDERTAKINGS:** April 26, 2016

**DECISION DATE:** **June 21, 2016**

**DECISION:** **Schedule of Rates and Charges approved, as amended.  
Schedule of Rules and Regulations approved, as amended.**

## I SUMMARY

[1] The Town of Lunenburg (“Town”) applied to the Nova Scotia Utility and Review Board (“Board”) on behalf of the Lunenburg Water Utility (“Utility” or “Applicant”) for amendments to its Schedule of Rates and Charges 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 existing Schedule of Rates for Water and Water Services and Schedule of Rules and Regulations have been in effect since April 1, 2007 and July 1, 2006, respectively.

[2] A rate study to support the Application (“Rate Study”), dated November 26, 2015 was prepared by G.A. Isenor Consulting Limited in association with Blaine S. Rooney Consulting Limited and was submitted to the Board on February 3, 2016. Information Requests (“IR”s) were issued by Board staff on March 8, 2016, and responses were filed on March 11, 2016.

[3] The Application proposed rate increases for the fiscal years 2016/17, 2017/18, and 2018/19 (“Test Years”). For the first dwelling unit unmetered residential customers, based upon a quarterly consumption of 12,500 gallons, the proposed increases in each of the Test Years are 8.9%, 9.6% and 6.3%, respectively. For the second dwelling unit (in the same building) unmetered customers, which the Applicant explained are generally apartment suites, based upon a quarterly consumption of 12,500 gallons in the first Test Year, 11,250 gallons in the second Test Year, and 10,000 gallons in the third Test Year, the proposed increases in each of the Test Years are 0%, 4.1% and 6.3%, respectively. For the metered customers, based upon the average quarterly consumption of each meter size, the proposed rate increases are between 1.6% to 11.8%

in 2016/17, 6.2% to 11.4% in 2017/18, and 6.3% to 9.5% in 2018/19. All of the Utility's residential customers are unmetered.

[4] The Application also proposes amendments to the annual public fire protection charge to be paid to the Utility by the Town for the provision of water for fire protection service. The total annual public fire protection charge is proposed to decrease slightly to \$278,300 in 2016/17, increase to \$281,314 in 2017/18, and increase to \$325,362 in 2018/19.

[5] The public hearing was held at the Lunenburg Court House on April 19, 2016, after due public notice. Gerry Isenor of G.A. Isenor Consulting Limited and Blaine Rooney of Blaine S. Rooney Consulting Limited, represented the Utility. The Utility was also represented by Elana Wentzell, who, up until very recently, was the Finance and Accounting Director for the Town, and Marc Belliveau, Town Engineer. There were no formal intervenors in the proceeding. Two members of the public, Lorne Johanson and Lars K. Jaeger, both residents of MacDonald Street, spoke during the hearing. One letter of comment was received by the Board.

[6] The Rate Study as included in the Application was presented at the hearing. The Schedule of Rates and Charges and the Schedule of Rules and Regulations are approved, as amended and requested by the Utility.

## **II INTRODUCTION**

[7] The water source for the Utility is Dares Lake which has a watershed area of 800 acres. The raw water is treated in the Utility's treatment plant, which opened in September 2010. The treatment process includes pre-treatment (flocculation),

membrane filtration, disinfection, PH adjustment, and corrosion control. The distribution system includes two reservoirs, each with a capacity of 750,000 gallons.

[8] The Utility has 187 metered customers and 1,108 unmetered customers. All businesses are metered, whereas all residences are unmetered and are charged a fixed rate.

[9] At the time of the last rate application, the Utility was directed to conduct a detailed investigation with respect to non-revenue water and file the results with the next rate application. The Utility had a leak detection survey done in December 2015 which was filed with the Board in response to IRs and noted that some leaks were repaired.

[10] The Application was presented to the Board based upon the need to adjust the rates as a result of increased operating costs and to fund the projected capital program.

### **III REVENUE REQUIREMENTS**

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

[11] For the year ended March 31, 2015, the Utility had an excess of revenues over expenditures of \$51,429 and an accumulated surplus of \$249,795. However, if current rates are left in place, the Utility is projecting a deficit balance by the end of 2018/19.

[12] In the last rate application, the Board noted that it would be helpful to complete a study of actual time spent on the Utility matters by salaried staff who split time between the Town and the Utility. In response to Board staff IRs, the Utility noted:

The Town reviews annually the staffing hours spent in each Utility (water and electric) to ensure proper allocation of wages as well as the allocation of other costs.

[Exhibit L-4, IR-6]

[13] During the hearing, the Board questioned which executive salaries were allocated to the Utility. In response to Undertaking U-1, the Utility advised that 30% of the CAO and Deputy CAO wages are allocated to the Utility, and that this is based on the actual time spent on Utility business.

[14] The Applicant explained in the hearing the rationale for the projected 2015/16 operating expense items which significantly differ from the previous year's actual expenses incurred. The water treatment expense increased from \$224,620 in 2014/15 to \$247,700 in 2015/16. The Utility noted that this was mainly due to timing of chemical purchases and an increase in power and labour rates. The administration and general expense increased from \$313,229 in 2014/15 to \$337,400 in 2015/16 due to the cost of the water rate study as well as increased computer maintenance costs.

[15] The projected operating expenses for the Test Years are generally based upon the Utility's budget for 2015/16 plus an annual increase of 3% for inflation. The Applicant stated that its budgeting process commences with the Finance and Accounting Director meeting with the Town Engineer, Public Works Superintendent, and Water Treatment Operator, to discuss operating and capital needs for the coming year. The Town Engineer prepares a 10 year capital budget and the Finance and Accounting Director prepares the operating budget. The budgets are then reviewed by the Town's CAO and finally recommended to the Town Council for approval.

[16] The projected depreciation expense in each of the Test Years is based upon the planned infrastructure additions included in the Utility's capital budget. The depreciation rates used are as set out in the Water Utility Accounting and Reporting

Handbook ("*Accounting Handbook*"), or, in several cases where they differ, the rates are based upon the asset's expected useful life.

[17] The Board requested an update for the fiscal year 2015/16 expenses which was provided in the response to Undertaking U-5 and the amounts did not vary materially from those presented in the Rate Study.

### **Findings**

[18] Although the Utility is currently in a surplus position, it is projected to be in a deficit position by the end of the Test Years, without an amendment to its rates.

[19] The Board finds the 3% annual increase in operating expenses over the Test Years to be reasonable. The Board accepts the allocation of costs between the Town and the Utility, which are tracked and charged to the Utility on the basis of actual time or resources used. The Board reminds the Utility to review these allocations on an ongoing basis to ensure accuracy.

### **(B) Capital Budget and Funding**

[20] The Rate Study included the Utility's capital budgets in each of the three Test Years, totaling \$1,000,500, \$708,500, and \$1,009,500 respectively. Distribution mains make up the majority of the proposed works and account for \$960,000, \$580,000, and \$960,000 in each of the Test Years, respectively. Other significant projects include: purification equipment (\$70,000); transportation equipment (\$50,000 over two years); electrical pumping (\$20,000 over two years), and diesel fuel tank (\$16,000). Recurring amounts include: hydrants (\$5,000 per annum); meters (\$3,000 per annum); and services (\$2,500 per annum).

[21] The proposed funding for the capital budget over the Test Years is as follows:

	<b>2016/17</b>	<b>2017/18</b>	<b>2018/19</b>
Depreciation Fund	\$ 650,000	\$ 350,000	\$ 400,000
Long Term Debt	\$ 200,500	\$ 358,500	\$ 609,500
Capital Reserve	\$ 150,000	-	-
<b>Total</b>	<b>\$1,000,500</b>	<b>\$ 708,500</b>	<b>\$ 1,009,500</b>

[22] The Rate Study projects that, with the proposed funding as set out above, the depreciation fund balance will be \$42,242 at the end of the Test Years.

[23] In the last rate application, the Utility was directed to prepare a cost benefit analysis on metering the unmetered customers. The Utility noted:

Town staff addressed the issue on whether customers should be metered and prepared a report for Town Council on February 15, 2007. It is attached as appendix 2. On February 15, 2007, council deferred the report to the budget process. On June 14, 2007 Council decided not to pursue the water meter option and approved the capital budget without it.

The issue was again addressed when the Rate study was being prepared. Cost estimates for universal metering were prepared and included as an option for inclusion in the rate study including the projected impact on rates. Council decided not to pursue the inclusion of universal metering at this time.

[Exhibit L-4, IR-5]

[24] During the hearing, the Applicant was further questioned by the Board on the issue of metering. Mr. Isenor responded that the option to include the cost of metering had been presented to Council prior to the completion of the Rate Study, but Council once again rejected the idea. The cost estimate which was presented to Council was provided in response to Undertaking U-2. Total cost contained in the report to Council was estimated at \$610,000.

[25] The Utility makes regular transfers to a capital reserve in addition to the transfers made to the depreciation fund. In response to undertaking U-4, the Utility provided a breakdown of the amounts transferred to the capital fund over the last 10

years. The capital fund has a balance of \$253,497 at the end of 2014/15, \$90,100 of which is a reserve for water treatment plant membranes.

### **Findings**

[26] The Board finds the proposed capital budget and funding for each of the three Test Years to be reasonable.

[27] The Board again notes that metering customers is a much more equitable way to allocate its expenses to customers. The Board expects the Utility to continue its efforts to meter all its customers, and directs the Utility to continue to pursue this option.

### **(C) Non-Operating/Other Revenues and Expenditures**

[28] Other operating revenues in each of the Test Years are: private fire protection in the annual amount of \$900; sprinkler service in the annual amount of \$6,200; and other revenue in the annual amount of \$8,300 (made up of customer interest charges, customer connection charges, and building rent).

[29] Non-operating revenues in each of the Test Years are: \$500 for jobbing and contract; \$2,500 for interest; and Grants from the Province of Nova Scotia in the amounts of \$8,000 in 2016/17, and \$12,000 in 2017/18 and 2018/19.

[30] The non-operating expenses include current debt payments in each of the Test Years of \$40,750 and interest charges of \$23,652, \$22,692, and \$21,592 respectively. Also included are principal payments on new debt of \$8,614, \$24,533, and \$52,191, and the corresponding interest, estimated at amounts of \$12,030, \$33,023, and \$68,121, respectively, in each of the Test Years. New debt payments are being incurred to fund a portion of the capital program planned over the Test Years.



[31] Included in non-operating expenses are transfers to the capital fund in the amounts of \$26,000 per annum for a reserve for the water treatment plant membrane replacement, and \$5,000 per annum for a reserve for land purchase. The Utility explained in response to IRs that the land reserve is set aside in case a watershed land owner decides to sell land within the watershed. The membrane reserve is set aside due to the projected life expectancy of the membranes, which have been identified for replacement in 2021. Also included in non-operating expenses is an owner dividend of \$10,000 in the second Test Year and \$20,000 in the final Test Year.

[32] The required rates of return were updated to remove all previously contributed capital in the response to Undertaking U-5. The revised required rates of return as calculated are 1.37%, 1.89% and 2.66%, respectively, in each of the Test Years.

### **Findings**

[33] The Board finds the Utility's other and non-operating revenues and expenditures, as presented, to be reasonable and accepts them. This includes the transfers to the Utility's capital fund, for the above noted reserves.

[34] The Board notes that the interest rate of 6% is included in the Rate Study on new debt over the Test Years which is consistent with other rate applications recently approved by the Board, and only applies to new debt. The Board finds it reasonable to use 6% interest for the purposes of the Rate Study.

[35] The Board further accepts the calculation of the required rates of return as presented in response to Undertaking U-5.

**(D) Allocations of Revenue Requirement**

**1. Public Fire Protection**

[36] The methodology used in the Rate Study for the determination of the public fire protection charge is in accordance with the *Accounting Handbook*. The percentage allocation of utility plant in service to public fire protection, which was approximately 36% at the time of the last rate application, has remained relatively consistent within a range of 33.3% to 35.6% over the Test Years.

[37] The fire protection charges calculated in the Rate Study are projected to decrease slightly to \$278,300 (currently at \$278,320) in 2016/17, increase to \$281,314 (a 1.1% increase) in 2017/18, and increase to \$325,362 in 2018/19 (a 15.7% increase).

[38] In the previous rate application, the Board recommended that the Utility measure the fire flow rates throughout the Town. The Board questioned the Utility during the hearing on the status of this recommendation, to which Mr. Belliveau responded that it had not yet been done, but was included in the budget for the coming year.

**Findings**

[39] The Board accepts the Utility's determination of the fire protection charges, as presented in the Rate Study, and approves them. The Board directs the Utility to carry out a fire flow study and file with the Board no later than November 30, 2016.

**2. Utility Customers**

[40] The remaining revenue requirement, after the allocation to the fire protection charges, is to be recovered from the customers of the Utility. The allocations used for the base charge, customer charge, delivery and production are consistent with the methodology as set out in the *Accounting Handbook*, with the exception of a transfer

of the revenue requirement from base to consumption charge in the first Test Year. Mr.

Isenor stated:

So what we're asking the Board is that we hold the consumption rate to the same level as it is today. We've provided the calculation for that on page 34. And then in turn, we adjust the meter ... or the base charges for the first year such that we're revenue-neutral.

The water utility makes the same amount of revenue except that we don't see a reduction in the consumption charge followed by a fairly substantial increase in the consumption charge. And that's just getting the rates back in shape from a ten-year hiatus really.

[Transcript, p. 56]

[41] The Utility currently has a three block consumption rate structure based upon 18,000,000 gallons per year per customer for the first block, and 18,000,000 to 30,000,000 gallons per year per customer for the second block. The Utility is proposing to change the first block to 22,000,000 gallons per year per customer in 2016/17; 24,000,000 gallons per year per customer in 2017/18; and 27,000,000 gallons per year per customer in 2018/19. The Utility is proposing to eliminate the third block consumption rate with the second block becoming anything above the first block.

[42] The consumption volume, based upon the Utility's current total annual consumption, is estimated to be 129,349,412 gallons in the first Test Year decreasing slightly each year down to 128,439,412 gallons in the final Test Year. Mr. Isenor explained during the hearing that the reduction related only to the additional unit (second dwelling) customers. It is the Utility's belief that a second dwelling, generally being an apartment suite in the same building, would use less water than the primary dwelling unit. The Utility has therefore progressively reduced the consumption for each additional unit from the 50,000 gallons per year currently used, down to 40,000 gallons per year in the final Test Year.

### **Findings**

[43] The Board accepts the reduction to two consumption blocks as well as the methodology used by the Utility in the calculation of base and consumption rates for each of the Test Years as proposed.

[44] The Board further accepts the calculation of the rates for unmetered customers, and the reduction in consumption for the second dwelling unit customers.

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

[45] In addition to the rates for water supply to its customers, the Application included a significant number of proposed changes to its Schedule of Rates and Charges. The Schedule of Rates and Charges had not been updated since 2006. The charges that have been updated are: rates for sprinkler service, private fire hydrants, rates for water supplied from fire hydrants, charge for re-establishing water service, account creation fee, disconnection fee, special service charge, charge for non-negotiable cheques, charge for missed appointment by customers, and the rate for bulk water. There are also various other changes to wording, in order to be more aligned with other water utilities in the Province.

[46] Mr. Isenor stated that the effective date in the first Schedule of Rates and Charges should read July 1, 2016, as opposed to April 1, 2016. The revised Schedules were filed in response to Undertaking U-3.

### **Findings**

[47] The Board has reviewed the proposed amendments included in the Schedule of Rates and Charges, and finds them to be reasonable.

[48] The Schedule of Rates and Charges for Test Years are approved as amended in response to Undertaking U-3.

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

[49] There were also a significant number of changes to the Schedule of Rules and Regulations. In Response to the Board IR-24, the Utility outlined these changes and reasons for them. Again, these changes were to bring them more in line with other water utilities in the Province.

**Findings**

[50] The proposed Schedule of Rules and Regulations are consistent with most other water utilities in the Province which have had recent rate applications.

[51] The Board approves the Schedule of Rules and Regulations as amended in response to Undertaking U-3, with an effective date of July 1, 2016.

**IV Submissions**

[52] There were no formal intervenors to the Application. There were two requests to speak, and one letter of comment. Lorne Johanson, a business owner and resident of the Town, was concerned with the management of Utility funds. He pointed out that his street, MacDonald Street, had been torn up six to seven times in the last 18 months. His concern was that the sum total of these repairs was higher than the cost to replace the watermain entirely. He questioned how the Utility decided upon the priority of the watermain renewals. Mr. Belliveau responded that the priority of the renewals was

based on a study completed in 1990 but when there are significant breaks, that watermain is added to the ten year capital plan.

[53] Mr. Johanson also questioned whether the amount of water leaking from the system was known, and noted that the old watermains could be leaking quite heavily. Mr. Isenor responded that the leak detection survey had been done in the fall of 2015 and that it had turned up four leaks, two of which had subsequently been repaired.

[54] Lars K. Jaeger also made a presentation at the hearing. Mr. Jaeger also resides on MacDonald Street and was concerned with the number of breaks on the Street in the last 18 months. Mr. Jaeger reported that the water pressure was down in his house due to the recent breaks and/or repairs. He also noted that there was very poor quality water in the house for several hours after the last repair work was completed. Mr. Belliveau responded that although MacDonald Street was not in the current 10 year capital plan, due to the recent breakages, it would be re-evaluated in the next round of budgets.

[55] A letter of comment was received prior to the hearing from Derek W. Kinsman. In his letter, Mr. Kinsman questioned whether the Utility has a clear idea of what the required infrastructure renewal requirements are and if this would result in a wave of unbudgeted costs. He also inquired if the Utility has a viable long term capital replacement plan.

### **Findings**

[56] The Board understands the difficulty the Utility faces regarding the current infrastructure given its age and condition. However, the Board expects that the Utility will continually assess the infrastructure to ensure it is replacing the infrastructure in as

efficient a manner as possible. The Board directs the Utility to formalize a plan for determining the order of priority for replacement of watermains, and submit with its next rate application.

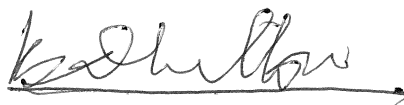
## V CONCLUSION

[57] In response to Undertaking U-3, the Utility refiled the Schedule of Rates and Charges for Water and Water Services to amend the effective date. Accordingly, the Board approves the Schedule of Rates and Charges for Water and Water Services, effective July 1, 2016, April 1, 2017, and April 1, 2018, as filed in the response to Undertaking U-3.

[58] The Board approves the Schedule of Rules and Regulations as amended in the response to Undertaking U-3, effective July 1, 2016.

[59] An Order will issue accordingly.

**DATED** at Halifax, Nova Scotia, this 21<sup>st</sup> day of June, 2016.



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Kulvinder S. Dhillon