

NOVA SCOTIA UTILITY AND REVIEW BOARD

IN THE MATTER OF THE PUBLIC UTILITIES ACT

- and -

IN THE MATTER OF AN APPLICATION of the **PUBLIC SERVICE COMMISSION OF BRIDGEWATER** 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: **PUBLIC SERVICE COMMISSION
OF BRIDGEWATER**

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

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

Dawn Keizer, MBA, CPA, CA
Director of Finance

Timothy Hiltz
Environmental Services Manager

HEARING DATE: March 2, 2016

DECISION DATE: **May 11, 2016**

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

I SUMMARY

[1] The Public Service Commission of Bridgewater (“Utility”, “Applicant”, “PSC”) applied to the Nova Scotia Utility and Review Board (“Board”) 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, 2011 and June 1, 2009, respectively.

[2] A Rate Study to support the Application dated November 20, 2015 was prepared by G.A. Isenor Consulting Limited in association with Blaine S. Rooney Consultants Limited (“Rate Study”), and was submitted to the Board on December 1, 2015. Information Requests (“IR”s) were issued by Board staff on December 17, 2015, and responses were filed on January 26, 2016. Included with the responses was a correction to a typo in the sprinkler service rate, as well as revisions to the proposed Schedule of Rules and Regulations which corrected errors in the original filing.

[3] The Application proposes rate increases for the fiscal years 2016/17, 2017/18 and 2018/19 (“Test Years”). For 5/8” meter residential customers, based upon average quarterly consumption, the proposed increases in each of the Test Years are 6.0%, 6.2% and 2.3%, respectively. For all other metered customers, based upon the average quarterly consumption of each meter size, the proposed rate increases are between 10.8% to 16.9% in 2016/17, 7.1% to 7.5% in 2017/18, and 3.6% to 3.9% in 2018/19.

[4] The Application also proposes amendments to the annual public fire protection charge to be paid to the Utility by the Town of Bridgewater (“Town”) and the Municipality of the District of Lunenburg (“Municipality”) for the provision of water for fire protection service. The proposed increases to the total annual public fire protection charges in each of the Test Years are 0.0%, 1.3% and 5.9%, respectively. The total fire protection charge is apportioned between the two entities noted above based upon the number of fire hydrants serving each jurisdiction.

[5] The public hearing was held at the Town’s Council Chambers on March 2, 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 members of the PSC’s staff: Dawn Keizer, Director of Finance; and Timothy Hiltz, Environmental Services Manager. No letters of comment were received and no members of the public made presentations during the hearing.

[6] The rate increases are approved, as proposed. The Rules and Regulations are approved, as amended and requested by the Utility.

II INTRODUCTION

[7] The Utility has a surface water source of supply from three interconnected lakes: Hebb Lake, Minamkeak Lake and Leipsigate Lake. The raw water is drawn through an intake pipe at Hebb Lake and pumped to the Utility’s water treatment plant, which was commissioned in 2002. The treated water is pumped into two transmission mains. One main provides water to the South end of the Town, with the other serving the North end of the Town, including the Industrial Park. The Utility has two storage reservoirs, each with a capacity of one million gallons.

[8] Since the Utility's last rate application in 2009, a number of watermains have been replaced. In addition, significant work has been completed on the PSC's dams in order to meet Canadian Dam Association Guidelines. This includes the raising and reinstatement of dam crests to ensure adequate freeboard, improvements to concrete spillways, stabilization and restoration of embankment slopes, removal of hazardous vegetation and the installation of a fish passage at Hebbs Dam.

[9] The Utility currently has approximately 35% non-revenue water which includes water used for maintenance of water quality, fire protection, hydrant flushing and leakage. The majority of the capital expenditures projected during the Test Years relate to the replacement of aging distribution mains, to help reduce water leakage in the system.

[10] At the time of the last rate application in 2009, the PSC was directed to review the retention of its two block consumption rate structure as a part of its next rate application. The two block structure is proposed in the current Rate Study. The Utility noted that the second block applies only to one of its largest customers, the Michelin Tire Manufacturing Plant ("Michelin") which consumes over one third of the water sold, has its own fire storage and fire pumping system, and utilizes only a small portion of the Utility's infrastructure. Based upon its review, the PSC has decided to maintain the two block structure for the current application.

[11] The Applicant currently serves 3,003 customers, with a projected annual increase of six residential customers over the Test Years.

[12] 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

[13] For the year ended March 31, 2015, the Utility had an excess of revenues over expenditures of \$127,519 and an accumulated operating surplus of \$534,707. The Rate Study projected that for the 2015/16 fiscal year, the Utility will have an excess of expenditures over revenues of \$280,984, and an accumulated operating surplus of \$253,720. Mr. Isenor explained the reason for the approximately \$400,000 difference between the profit in 2014/2015 and loss in 2015/16, as being due to: an approximately \$50,000 decrease in operating revenue; an increase in depreciation expense of \$85,000 associated with the construction of a large pumping station; an increase in debt servicing costs of \$92,000, to fund the capital program; and increases in other operating and non-operating expense items.

[14] It was further noted by the Applicant that significant changes in the operating expense line items is due to the reallocation of some salary and benefit expenses from Administration and General to Source of Supply, Power and Pumping, Water Treatment, and Transmission and Distribution expenses, with no impact on the total operating expenses. Mr. Isenor added that the reallocation of expenses will aid in calculating a more accurate fire protection rate, as well as more accurate base and consumption charges.

[15] The Applicant explained that in preparing its budgets, the past seven years' trends are taken into consideration, with the assumption of an inflation rate, and the inclusion of any expected increases/decreases and out of the ordinary expenditures. The projected operating expenses for the Test Years were based upon the information provided by the PSC, and a 3% annual increase. Explanations for any variances in the 3% figure were noted in responses to the Board IRs.

[16] The expense item - Maintenance of Source of Supply Structure – Dam, decreased from \$14,700 in 2015/16 to \$4,100 in 2016/17 due to work at Hebbs dam which was completed in 2015/16 and not carried through to the next year. The line item, Power and Pumping Maintenance of Building is projected to fluctuate throughout each of the Test Years, with a decrease of 29%, increase of 63% and decrease of 36%, respectively, in each Test Year, as a result of the addition of specific maintenance projects which are not conducted on an annual basis. The Water Treatment Lab Suppliers expense is projected to decrease by approximately 28% in 2016/17 from 2015/16, due to cost increases in 2015/16 for testing reagents which is not expected to continue. Small Equipment Supplies, a transmission and distribution expense line item, is projected to decrease from \$6,100 in 2015/16 to \$2,900 in 2016/17 due to a one- time purchase of replacement meter reading equipment in 2015/16.

[17] During the hearing the Board questioned the inclusion of Marketing/Branding expenses of approximately \$5,000, increasing annually by 3%, in the Utility's Administration and General costs. The Applicant explained that the Town underwent a branding exercise and it is planned that the PSC should follow the same process. It was further noted that marketing/branding will be used to educate the public

on issues such as what the Utility does, protecting the environment and the provision of clean water. In future years, the costs associated with this exercise are expected to decrease.

[18] The projected depreciation expense in each of the Test Years is based upon planned infrastructure additions included in the Utility's capital budget for each of the Test Years. The depreciation rates used are as set out in the Water Utility Accounting and Reporting Handbook (*Accounting Handbook*). In cases where they are not specifically identified in the *Accounting Handbook*, the rates are based upon the asset's expected life.

[19] The Rate Study includes an annual tax expense in the \$227,000 to \$228,000 range in each of the Test Years, related to property taxes on the reservoirs, booster station and chlorine building. Ms. Keizer explained that as per the legislation the Utility is liable to taxation within the Town on its property. Mr. Rooney clarified that for the purpose of taxation, only the above ground infrastructure and not the pipes and other components of the Utility's system located below the ground are included.

[20] The Board noted during the hearing the Utility's amount of non-revenue water, at approximately 35%, which Mr. Hiltz confirmed includes seasonal flushing of the system dead ends, fire practices and leakage. He stated that the Utility conducts a leak detection survey twice a year, followed up with the appropriate corrective action, as well as closely monitoring daily water production. He further explained that the Utility currently does not have a good understanding as to how much of the non-revenue water relates to legitimate use, such as flushing, and how much is lost through leakage.

[21] The Utility filed a projected operating fund balance sheet in response to the IRs which indicates that, based upon the rates proposed the Utility's accumulated operating surplus will remain at \$253,720 in each of the Test Years.

Findings

[22] It appears that due to a number of items, in particular, increased capital expenditures resulting in increased annual depreciation expense and increased debt servicing costs, the Utility's financial position began to deteriorate in 2015/16, causing the need for a rate review. The Board notes the timeliness of the Application before the Utility reaches an operating deficit balance.

[23] The Board accepts the reallocation of the salary costs from Administration and General to the appropriate related categories. This will result in a more accurate allocation of costs to the revenue requirements associated with fire protection charges and customer rates.

[24] The Board finds the 3% annual increase in operating expenses over the Test Years to be reasonable, and further accepts the explanation for additional budgeted items. The Board accepts the projected tax expense to be paid to the Town, as well as the marketing/branding expense, with the understanding that as the branding exercise matures, the associated expenditure will decrease.

[25] The Board also accepts the annual depreciation expense based upon the Utility's projected capital budget for the Test Years as contained in the Rate Study.

[26] The Utility's amount of non-revenue water appears to be high. While it is encouraging that the Utility has budgeted for leak detection and distribution main replacement to deal with the issue, it needs to obtain an accurate estimate of the actual

amount of water lost through leakage versus legitimate non-revenue water usage. As a first step, it should attempt to estimate flushing and fire services volumes. It should then continue to look at ways to reduce the water loss and prioritize its budget to focus on this issue.

[27] The Utility is ordered to file a leakage study with its next rate application.

(B) Capital Budget and Funding

[28] The Rate Study shows the capital expenditures in 2015/16, totalling \$2,763,396, including the two major items of power and pumping structures (\$1,631,458), and distribution main replacement (\$911,938), funded in part through borrowing \$1,181,396 at 6% over 20 years. The significant capital expenditure and funding were identified as the main reasons for the change in the Utility's financial position in 2015/16, as discussed above.

[29] The Rate Study includes the Utility's capital budgets in each of the Test Years, totaling \$846,016, \$1,003,000 and \$844,000, respectively. Source of Supply Land is budgeted in amounts of \$48,000 in 2016/17, \$49,000 in 2017/18 and \$50,000 in 2018/19. Mr. Isenor explained that the Utility maintains reserve funds for the purchase of watershed lands as they become available. Tools and Work Equipment, Meters and Hydrants are budgeted in each of the Test Years in the annual amounts of \$3,000, \$20,000 and \$9,000, respectively.

[30] In the first Test Year the other projects include: Upgrade PLCs (\$75,000); Electrical Equipment (\$85,000); Distribution Mains Equipment- PS Generator (\$85,000); Upgrade Sampling Stations (\$15,000); Other Leak Detection Equipment (\$30,000); Transmission Mains (\$62,016); and Distribution Mains (\$414,000). Distribution mains are

included in the 2017/18 capital budget in the amount of \$922,000, and in the 2018/19 capital budget at \$762,000.

[31] Mr. Isenor explained:

Primarily, the Utility is in a situation where the infrastructure is aging and it is making efforts to revitalize that infrastructure on a long-term basis. So we do see some expansion, like the pumping station is being expanded to partly serve new development but also to pick up and fix some flaws in the old system. But we also have a lot of pipeline replacement, watermain replacement. That is just simply needed capital infrastructure renewal. And so we see that in each of the test years with the majority of the monies being spent on the distribution mains.

[Transcript, p. 29]

[32] The proposed funding for the capital budgets over the Test Years are:

	2016/17	2017/18	2018/19
Depreciation Fund	\$550,000	\$550,000	\$550,000
Long Term Debt	\$296,016	\$393,000	\$194,000
Capital out of Revenue	\$ 0	\$ 60,000	\$100,000
	<u>\$846,016</u>	<u>\$1,003,000</u>	<u>\$844,000</u>

[33] The Applicant explained that it historically uses capital out of revenue as a funding source for routine capital cost items such as meter replacement, fittings and valves. Mr. Isenor added that, for rate design purposes, it was decided not to use capital out of revenue in the first Test Year. This would have led to a too high of a rate increase, given the goal of keeping the dollar amount increases relatively constant over the Test Years.

[34] The long term debt repayment in each of the Test Years is over 15 years at 6%. The Board noted that the projected interest rate appears to be high. Mr. Rooney explained that if it is higher than actual it will provide some protection to the Utility in the case of any cost overruns, while Mr. Isenor added that this will be a benefit to the customer base.

[35] The Rate Study projects that, with the proposed funding from depreciation, as set out above, the depreciation fund balance will be \$256,083 at the end of the Test Years. Mr. Isenor confirmed that in preparing the Application, they had targeted maintaining a depreciation fund balance of \$200,000 plus to have available for any unknowns and significant capital expenditures.

Findings

[36] The Applicant has noted that it is focusing on dealing with the issue of aging infrastructure, and in particular on the replacement of distribution mains, which appears to be reasonable. This initiative will further aid in reducing the Utility's amount of non-revenue water related to leaks.

[37] The funding of the capital budget is proposed through a combination of capital out of revenue, long term debt and depreciation fund. As it appears that a number of the proposed capital items are recurring in each of the Test Years, the Board accepts the proposed capital out of revenue funding, including the explanation for rate design purposes of deferring capital out of revenue funding in 2016/17. The Board further accepts the long term debt funding, noting that the projected interest rate may result in some additional funds which can be used towards further infrastructure replacement, or cost overruns.

[38] The Utility has an ample depreciation reserve balance which could have been further used towards funding the proposed capital projects. However, given the significant capital program proposed, and the need to replace aging infrastructure, it is reasonable to maintain a healthy depreciation fund balance in case of the need for unexpected funding, and cost overruns.

[39] The Board finds the proposed capital budgets for each of the Test Years of the Rate Study to be reasonable. However, the Utility is reminded that the inclusion of the proposed capital projects in the Rate Study does not constitute Board approval of these projects. Separate Board approval is required for projects in excess of \$250,000 as set out in s. 35 of the *Act*.

(C) Non-Operating/Other Expenditures and Revenues

[40] Other annual operating revenue in each of the Test Years were identified in the Rate Study as: Connection Fees (\$7,860); Private Hydrants (\$7,600); Sprinkler Service (\$13,500); and Other (\$16,500). Mr. Isenor clarified that the item identified as Connection Fees should be corrected to read Bulk Water Sales, as it refers to the projected revenue from the Utility's sale of bulk water. The Applicant explained that the amount identified as "Other" relates to revenue derived from the Utility's special service charge (item 10 of the Schedule of Rates), as well as other services such as monies received for metal returned from old meters, and capital cost recovery invoiced to the Municipality.

[41] Non-operating revenue is projected in each of the Test Years in the annual amounts of: \$25,000 related to interest and other income; \$1,300 in jobs and contract work; and \$7,000 as HST offset. Non-operating revenue also includes Amortization of Deferred Assistance in the amounts of \$30,000 in 2016/7, \$15,000 in 2017/18 and \$0 in 2018/19. The Applicant explained:

Amortization of deferred assistance is projected to decrease in each of the test years and reach \$0 in 2018/19 due to the fact that this is the offset to depreciation on contributed assets that are now recognized in the accounts with the adoption of PSAB [Public Sector Accounting Handbook]. The current rates do not reflect this additional depreciation and it is being phased into the rates over the test period as permitted by the Accounting and Reporting Handbook.

[Exhibit B-3, IR-9(c)]

[42] The non-operating expenses include: current debt payments in each of the Test Years; new debt payments associated with funding the capital budgets in the Test Years; and capital out of revenue in 2017/18 and 2018/19 to fund the capital projects.

[43] The required rates of return are calculated as 2.56%, 3.01% and 3.26%, respectively in each of the Test Years.

Findings

[44] The Board accepts the other operating revenue as proposed in the Rate Study, noting the correction of the identification of the line item "Connection Fees" to "Bulk Water Sales". The Board accepts the projected non-operating revenues, including the phasing-in of the inclusion of the depreciation on contributed assets which will provide additional funding in the depreciation reserve for future capital needs.

[45] The Board finds the Utility's projected non-operating expenses are reasonable, and accepts them as presented.

[46] The Board further accepts the calculation of the required return on rate base, as presented in the Application.

(D) Allocations of Revenue Requirement

1. Public Fire Protection

[47] The methodology used for the determination of the public fire protection charge is consistent with that used in the previous rate application, including the allocation of the water treatment plant asset as 85% to general service and 15% to fire protection, due to the storage reservoir which can be used for fire protection. This allocation differs from the 90% to general service and 10% to fire protection set out in the *Accounting Handbook*. The remaining allocations are consistent with the *Accounting Handbook*.

[48] An amount of \$50,000 identified as Working Capital is not used in the allocation and determination of the public fire protection charge, which the Applicant explained is appropriate, as it is not a tangible asset. Mr. Isenor noted that the \$50,000 appears to be just an historic number on the PSC's books which it would like to write-off, similar to the Halifax Regional Water Commission.

[49] The Rate Study calculated the allocation of the utility plant in service to public fire protection as 31.3%, 32.2% and 32.8%, respectively in each of the Test Years. Mr. Isenor noted that using the calculated percentage for fire protection in the first Test Year would result in the charge decreasing from its current \$785,932 to about \$732,000, followed by two significant increases in the remaining Test Years to \$796,412 and \$843,780, respectively. Therefore, it is proposed to use an allocation figure of 34.2% in 2016/17 which would result in retaining the current fire protection charge in the first Test Year, with the rates in 2017/18 and 2018/19 increasing as calculated in the Rate Study. It was further explained in response to the IRs that if the fire protection rate decreases in 2016/17, it would result in increases to the customer rates in that year.

[50] The total fire protection charge is allocated to the Town and the Municipality, based upon the number of hydrants in each entity.

Findings

[51] The allocations of utility plant in service to fire protection are consistent with those set out in the *Accounting Handbook* with the exception of the water treatment plant asset. The Utility provided an explanation for the higher allocation used in the Rate Study, due to the availability of storage for fire protection, which the Board finds to be reasonable.

[52] The Applicant indicated that it wishes to write-off the \$50,000 working capital amount as the amount was not used in any of the Rate Study calculations and its write-off has no impact on the proposed rates.

[53] The Board approves the Utility's request to write off the working capital amount of \$50,000.

[54] The Board accepts the public fire protection charges, including maintaining the current fire protection charge in the first Test Year, as presented in the Application.

2. Utility Customers

[55] The remaining revenue requirement in the Rate Study, after the allocation to the fire protection charge, is to be recovered from the customers of the Utility. The allocations used to calculate the base, customer, delivery and production charges are the same as those used in the last rate Application, and the methodology as set out in the *Accounting Handbook*, with the exception of the administration and general expenses. The *Accounting Handbook* suggests an allocation of 10% to customer and 90% to base, whereas the Application allocates 10% to customer, 40% to base and 50% to delivery,

consistent with the previous rate study. Mr. Isenor explained that with the proposed allocations, approximately 36% of the Utility's revenue will come from the base charges, which he described as reasonable, given the Utility's size and consistent water sales. He added that the higher allocation to commodity charges will also aid in water conservation.

[56] The Utility currently has 3,003 metered service connections, which, based upon average growth over the past five years, is projected to increase annually by six residential customers over the Test Years. The Application is based upon an annual decrease in residential consumption of 2.0%, based upon historic consumption volumes. All other consumption volumes are projected to remain unchanged throughout the Test Years because it is difficult to consistently identify customer types for the various other meter sizes, which may change over time.

[57] The Application proposes to maintain the current two block consumption rate structure, noting that the second block applies only to one customer, Michelin, which it described as:

...a very consistent customer, providing a level of stability to the revenue received, moderates fluctuations in daily and seasonal consumption rates and is the largest employer in the community.

[Exhibit B-3, IR-4a)]

[58] Currently the second block is described as all consumption over 25,000 cubic metres per quarter. It is proposed to amend this description from quarterly to a yearly volume of 100,000 cubic metres to allow for customers who have large seasonal draws.

[59] The Applicant proposes an amendment to the Bulk Water Rates in each of the Test Years, using the same methodology as was used in the previous rate application.

[60] Mr. Isenor described the proposed rates as comparable to many other utilities in the Province.

Findings

[61] The Board accepts the methodology used by the Utility in the calculation of base and consumption rates for each of the Test Years, which is consistent with the last rate application. Included in the determination of rates is a proposed decrease in residential consumption, which is a recent trend, consistent with many other water utilities in the Province.

[62] The majority of the regulated water utilities in the Province have a single block rate. However, given the Utility's situation of having one customer which accounts for a significant portion of its water sales, the Board accepts the retention of two block rates, as well as the change in the definition of the blocks from quarterly to yearly. The Board directs the Utility to review the retention of the two block consumption rate structure in its next rate Application.

[63] The Board further accepts the calculation of the rates for bulk water sales. The proposed bulk water rates are approved.

(E) Schedule of Rates and Charges

[64] In addition to the customer rates, bulk water rates, and the fire protection charges, the Application proposes other changes to its Schedule of Rates and Charges. The date on which the hydrant count is based for the "Public Fire Protection" has been revised from December 31 to March 31 of each year. The "Rates for Sprinkler Service" have been revised to be consistent with other utilities. It was noted in the response to the

Board IRs that the proposed revision was omitted in the Schedules for 2017/18 and should be corrected. The name of “Connection Fee” was revised to “Account Connection Fee” for clarification. The “Charge for Non-Negotiable Cheques” has been revised to include additional bank charges should they occur.

[65] The Schedule of Rates and Charges includes a clause stating that the minimum quarterly bill for Michelin shall be \$8,000 for each meter, which is unchanged, and is based upon a long standing agreement with Michelin.

Findings

[66] The Board has reviewed the proposed amendments to the Schedule of Rates and Charges, and corrected in the response to the IRs, as noted above, and are approved.

(F) Schedule of Rules and Regulations

[67] The Application proposes a number of changes to its Schedule of Rules and Regulations, as set out in response to the Board IR-40. The Utility noted that Regulation 37 “Extensions” should include a section indicating that Board approval is required, as follows:

- (a) Any approval of the Commission shall be subject to approval of the Nova Scotia Utility and Review Board (the Board). The Utility will make application to the Board after agreement has been received with the proponent. No work shall be undertaken until approval is received from the Board.

[Exhibit B-3, IR-44]

[68] The Applicant further amended the wording of Regulation 38 “Sale of Bulk Water” to include the words “customer’s” and “Application”, as follows:

Upon the customer's satisfactory completion of a Designated Fill Station Permit Application, the Commission will sell metered bulk water in accordance with the Schedule of Rates and Charges.

[Exhibit B-3, IR-45]

Findings

[69] The Board accepts the requested amendments to the Schedule of Rules and Regulations, as amended in response to the IRs and they are approved.

IV CONCLUSION

[70] The Application proposed rates to be effective April 1, 2016. Mr. Isenor noted that, given the timing of the hearing, it is now suggested that rates be effective July 1, 2016. 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 proposed, with the correction to "Rates for Sprinkler Service", noted above.

[71] The Board approves the Schedule of Rules and Regulations, amended as filed in the response to the Board IRs, effective July 1, 2016.

[72] An Order will issue accordingly.

DATED at Halifax, Nova Scotia, this 11th day of May, 2016.



Kulvinder S. Dhillon