DECISION

2016 NSUARB 218
M07376

NOVA SCOTIA UTILITY AND REVIEW BOARD

IN THE MATTER OF THE PUBLIC UTILITIES ACT

- and -

IN THE MATTER OF AN APPLICATION of the **MUNICIPALITY OF ANNAPOLIS COUNTY**, 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: Murray E. Doehler, CPA, CA, P.Eng., Member

APPEARING: **MUNICIPALITY OF THE COUNTY OF ANNAPOLIS**
W. Bruce Gillis, QC
Solicitor

Maggie A. Shackleton, LL.B.
Solicitor

INTERVENOR: **TOWN OF ANNAPOLIS ROYAL**
Jonathan G. Cuming, LL.B.
Solicitor

HEARING DATE: October 5, 2016

FINAL EVIDENCE: November 16, 2016

DECISION DATE: **December 23, 2016**

DECISION: **Schedule of Rates and Charges approved, as amended, subject to a compliance filing.**
Schedule of Rules and Regulations approved, as amended.

I SUMMARY

[1] The Municipality of the County of Annapolis ("County") applied to the Nova Scotia Utility and Review Board ("Board") on behalf of the Annapolis County 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*").

[2] In addition to its retail customers, the Utility provides water at a wholesale rate to the Annapolis Royal Water Utility ("Town Utility") in the Town of Annapolis Royal ("Town"). 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 November 1, 2009, respectively.

[3] A rate study to support the Application, dated February 19, 2016, was prepared by G.A. Isenor Consulting Limited, in association with Blaine S. Rooney Consulting Limited, and was submitted to the Board on March 21, 2016. Information Requests ("IR's") were issued by Board staff on April 19, 2016, and by the Town on April 29, 2016, to which responses were filed on May 5, 2016, and May 30, 2016, respectively.

[4] The Application proposed rate increases for the fiscal years 2016/17, 2017/18, and 2018/19 ("Test Years", "Test Period"). For 5/8" metered residential customers, based upon average quarterly consumption, the proposed increases in each of the Test Years are 15.1%, 2.5% and 3.5%, respectively. For all other metered customers, based upon the average quarterly consumption of each meter size, the proposed rate increases are between 14.9% to 23.7% in 2016/17, 2.5% to 2.8% in 2017/18, and 3.9% to 4.8% in 2018/19. For Flat rate charges (based on no consumption

charge due to low water pressure), the proposed rate increases are 8.4% in 2016/17, 3.1% in 2017/18, and 3.1% in 2018/19.

[5] The Application also proposes rate increases to its wholesale customer, the Town Utility, of 410.7%, 2.1% and 1.1%, in each of the test years respectively.

[6] The Application further proposes amendments to the annual public fire protection charge, to be paid to the Utility by the County, for the provision of water for fire protection service. The Utility proposes to hold fire protection rate steady for the first year, followed by increases of 6.1% in 2017/18, and 4.0% in 2018/19.

[7] The Board held a preliminary hearing on May 16, 2016. The two principal issues in the preliminary hearing were:

> **Issue No. 1** - Does the 1998 Agreement deprive the Board of jurisdiction with respect to the setting of rates, as well as rules and regulations, for the Water Utility?
>
> **Issue No. 2** - Should the Board postpone the hearing on the merits of the County's Application, for perhaps nine months or more, to enable, as the Town requests, the "validity" of the 1998 Agreement to be determined?

[8] The Board considered the answer to both the issues to be "no." The Board ordered that the hearing on the merits proceed.

[9] The hearing on the merits was held at the Annapolis Royal Fire Hall on October 5, 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 John Ferguson, the County's Chief Administrative Officer; Stephen McInnis, Director of Engineering and Public Works; W. Bruce Gillis, Solicitor; and Maggie Shackleton, Solicitor.

[10] The Town was the only formal intervenor in the proceedings. The Town was represented by Jonathan G. Cuming and had as a witness panel: Gregory Barr, the Chief Administrative Officer; Byron Mersereau, a Councillor; and John Kinsella, a former Mayor and Councillor.

[11] One letter of comment was received by the Board on September 30, 2016, and there was one request to speak.

[12] In response to Board Staff Information Requests ("IRs"), the Utility noted that the number of customers in the original rate study was incorrect and included a revised rate study with the correct number of customers as part of its response. The number of customers is not expected to change over the Test Period. It is this revised rate study ("Rate Study") that was presented at the hearing and is the study that is referenced in this Decision, unless otherwise noted.

[13] The Rate Study had slightly lower increases for the Utility's metered customers than was included in the original rate study. Fire protection charges and wholesale rate increases were unchanged.

[14] The Schedule of Rates and Charges are to be approved, as amended, but subject to a compliance filing by the Utility. The Schedule of Rules and Regulations are approved as filed by the Utility.

II INTRODUCTION

[15] The Utility has three separate water systems: Margaretsville; Granville Ferry; and Cornwallis Park described as follows:

1. The Margaretsville system serves the local community. This system has wells for the source of supply with sand filter pre-treatment and chlorination, with a concrete

reservoir for domestic and fire protection storage, as well as a standard distribution system with fire hydrants for fire protection.

2. The Granville Ferry system serves the local community and supplies treated water to the Town, which has its own storage reservoir and chlorine booster station. This system has three wells from a confined aquifer with chlorination and steel storage tanks for domestic and fire protection storage.
3. The Cornwallis Park system serves the local community. This system has a surface water source with a 10 km transmission main to the treatment plant located in Cornwallis Park. The treatment facility consists of a Dissolved Air Floatation Clarifier with a Filtered Backwash System and storage reservoir for domestic and fire protection storage.

[16] The Utility has 605 metered customers and provides water to the Town for resale to its customers, on its own distribution system.

[17] The Application was presented to the Board based upon the need to adjust the rates as a result of a significant accumulated deficit due, in part, to an adjourned 2013 rate application; increased operating costs; and to fund the projected capital program.

III REVENUE REQUIREMENTS

(A) Operating Expenditures

[18] For the year ended March 31, 2015, the Utility had an excess of revenues over expenditures of $12,402 and an accumulated deficit of $678,062, which is equivalent to its annual revenue. If current rates are left in place, the Utility is projecting an accumulated deficit of $936,684 by the end of 2018/19.

[19] In response to Board IR-4, the Utility noted projects and programs it has implemented and what it plans to do, during the Test Period, to address non-revenue water, which, in 2015, was 94,356 cubic meters (27.1% of water produced).

[20] The response to Board IR-11 explained the variance in the Transmission and Distribution expense line item from 2014/15 to 2015/16, which is the base year for developing the expenses for the test period. The Utility explained that the variance was due to the hiring of a new Manager of Operations.

[21] 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. Exceptions to this are Taxes and Depreciation, which are based on current assets and proposed capital additions over the Test Period.

[22] The Applicant stated that the budget is prepared by Staff, based on the previous year's expenditures and projected changes for the upcoming year. The budget is then submitted to Municipal Council for approval.

Findings

[23] The Board has reviewed the information presented in relation to the Utility's projected operating expenses and finds the Utility's explanation for the variances between the 2014/15 actual and the 2015/16 budgeted amounts to be reasonable.

[24] The proposed operating expenses over the Test years are based upon an annual increase of 3%, which is consistent with other recent rate applications decisions by the Board.

[25] The Board finds the projected operating expenses, including depreciation, to be reasonable, and approves them.

(B) Capital Budget and Funding

[26] The Rate Study included the Utility's capital budgets in each of the three Test Years, totaling $184,900, $690,500, and $36,300 respectively, most of which is for distribution mains. The Utility proposes funding for the capital program to be in roughly equal amounts from the depreciation fund and gas tax contributions.

[27] The Rate Study indicated that the balance in the depreciation fund, as at March 31, 2015, was $477,632. Based upon the proposed funding drawdown, the balance in the depreciation fund is estimated to be $572,848 at the end of the Test Period.

[28] However, the depreciation fund is not cash funded. It is, instead, a debt owing between the operating fund and the capital fund. Essentially, the non-cash funding of depreciation has financed the deficit. Mr. Isenor agreed that although the balance is expected to grow in the fund, due to the timing of funding required, this could cause cash flow problems.

Findings

[29] The Utility is primarily focusing on replacing ageing infrastructure over the Test Period. This work is expected to reduce leakage, while the meter replacements should increase water billings for water that is sold, but not currently billed by usage. Both of these actions should help to reduce the unaccounted for non-revenue water.

[30] The Board finds the proposed capital budget and funding for each of the three Test Years 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 Revenues and Expenditures

[31] Included in the revenue requirements for the Test Period are projections of non-operating expenditures and revenue. The revenue consists of interest income and Sprinkler Services in the amount of $1,000 and $1,500 respectively in each of the Test Years.

[32] The non-operating expenses include the current debt servicing payments, interest expense and principal repayments, in the each of the Test Years. Principal repayments remain the same during the Test Period, while the associated interest expense decreases in each of the Test Years.

[33] Also included as a non-operating expenditure in each of the Test Years is earnings of $45,000, $50,000, and $75,000, respectively. The earnings are to be used to reduce the accumulated deficit being faced by the utility and it is proposed that the payments will go to the Municipality for the outstanding debt owed to it.

[34] The Utility intends to re-allocate the annual principal repayment of $92,500 to the County after a large portion of the current debt is retired in 2018. The current debt to the County total approximately $550,000.

[35] The rates of return, which are calculated using the total non-operating expense revenue requirement, are 1.83%, 1.80% and 1.98%, in each of the Test Years.

Findings

[36] The Board finds the Utility's other and non-operating revenues and expenditures to be reasonable and accepts them as presented.

[37] The Board finds the calculated rate of return on rate base over the Test Years, including 'earnings' to be reasonable and in accordance with the Accounting Handbook.

[38] The Utility is in a deficit and any "earnings" need to be retained to improve its financial health. The retained earnings could be used to fund the depreciation and start to repay the debt to the Municipality.

(D) Allocations of Revenue Requirement

1. Public Fire Protection

[39] The methodology used in the Rate Study to determine the public fire protection charges is generally consistent with the *Water Utility Accounting and Reporting Handbook* ("*Handbook*"). The only exception is the allocation of transmission mains, which the Rate Study has set at 82.8% to general service and 17.2% to fire protection, instead of the suggested 40% to general service and 60% to fire protection, as set out in the *Handbook*.

[40] Mr. Isenor, during the hearing, explained how the percentage allocation of transmission mains was calculated, as follows:

> …This allocation has been before the Board before but it relates to the transmission main that serves the Cornwallis Water Treatment Plant, which actually, although it's a significant length of main, has no firefighting capability because the water exits that line and actually goes through the treatment plant so there's no capability of feeding a fire.
>
> So we've used just a percentage of the total Utility value based on that asset versus the total transmission assets and this is similar to last time. The Cornwallis portion has been rated at 90 percent to general service, 10 percent to fire. The remainder at 40 percent to general service and 60 percent to fire, results in a derived percentage of 82.8 percent to general service and 17.2 percent to fire. …
>
> [Transcript, pp. 11-12]

[41] The percentage allocation of utility plant in service to public fire protection is calculated in the Rate Study as 22.9%, 24.8%, and 24.9% in each of the Test Years

respectively. However, for the first Test Year, the fire protection assets were allocated at 23.9%, as opposed to the calculated 22.9%, for rate-making purposes. Mr. Isenor explained the reasoning as follows:

> … I do note that the fire protection rate in the first year would actually calculate to be slightly less than what we're asking for. We are requesting, with the Municipality's permission, as was discussed, that the fire protection rate be allowed to sit where it's at right now, which is $131,439, and then to increase in test years two and three. The actual calculated rate for the first year had we not done the discount would have been 127,400.
>
> [Transcript, pp. 12]

Findings

[42] The Board finds the calculation for the allocation of transmission mains to be reasonable, and approves the Utility's determination of the fire protection charges of $131,439, $139,478, and $145,069 respectively in each of the three Test Years.

2. Utility Customers

a. Wholesale

[43] The total Revenue Requirement, less the fire protection charges, is to be recovered from the wholesale and retail customers. To do so, the Utility determines the percentage of expense categories which are for joint use, which is then adjusted based on the actual water consumption. In doing so, the allocation of the non-revenue water is based on the length of the joint use mains.

[44] The Rate Study allocates the expense categories of Source of Supply, Power and Pumping, Water Treatment and Taxes at 100% to joint use. The others are derived based on certain other attributes and calculated at 9.11% for Transmission and Distribution, 41.66% for Administration and General, 59.86% for Depreciation and 73.58% for Return on Rate Base.

[45] The derivation of the joint use percentages is detailed in the Rate Study. For example, the derivation for Transmission and Distribution is:

6. Transmission and Distribution	
Total length of Trans and Distr. piping in County Utility in lineal meters	38,530
Lineal meters of pipe from source of supply to Town meter.	3,510
Joint Use Percentage	**9.11%**

[Exhibit A-3, p. 53]

[46] There is no analysis to support the 100% joint use allocation for the first three expense categories.

[47] Although amalgamated as one system, each of the three original systems has its own source of supply and they are not interconnected. All of the wholesale revenue for the Utility comes from the Granville Ferry system.

[48] The County submitted corrected production and consumption figures in an undertaking. Neither of these figures, nor the determination of the length of joint mains, were disputed by the Town.

[49] The Town's argument centered on the validity and methodology contained in the 1998 Agreement between the Town and the County. The Town suggests that the Board should approve wholesale rates based on the calculation as presented in the Agreement, or based on costs of the Granville Ferry system only, but using the joint use allocation methodology.

[50] In its rebuttal submission, the Town stated:

> [8] … What the Town is respectfully submitting is that the Board cannot approve a rate that the County suggests must be accepted by reason of the 2009 amalgamation, when, at the time of the 2009 amalgamation, the County represented that the amalgamation would not impact upon the manner in which the rate to the Town would be calculated. …
>
> [Town Rebuttal Submission, November 17, 2016, p. 3]

[51] The County, in its rebuttal submitted:

> ...The fact that the Board indicated that the Agreement might be evidence to be considered does not in anyway suggest that it would be binding on the Board in setting fair and just rates.
>
> [Utility Rebuttal Submission, November 9, 2016, p. 2]

[52] The Town also added that:

> [11] ... Mr. Isenor failed to consider whether it would be appropriate to treat the Town, who had contributed to the capital costs associated with improving the Granville Ferry System, as he has treated other "wholesale customers" who have not made any contribution to the system. As stated in the Town's post-hearing submissions, the Town submits that the wholesale formula fails to account for the fact that the Town is the owner of certain assets necessary for the production of the water.
>
> [Town Rebuttal Submission, November 17, 2016, p. 4]

[53] The Town, in its evidence, included two options for the Board to consider. The first was based on the calculation as presented in the Agreement. The second option was based on using all costs of the Granville Ferry system and allocated to base and commodity charges. The figures used for the Granville Ferry system for both options were estimates, as the Town did not have access to the actual costs of the original system.

[54] The County, in its rebuttal, stated:

> As best I can understand those submissions, however, they appear to be claiming that the 2009 amalgamation and rate setting decision made by the Board makes the issue of the validity of the 1998 Agreement, which is disputed in this matter, *res judicata*, and that therefore the Board cannot now decide the question differently.
>
> [Utility Rebuttal Submission, November 9, 2016, p. 1]

[55] In response to an undertaking, the County confirmed that it would be possible, in theory, to extract costs for the Granville Ferry system, but that no such accounts exist in the current set of financial records.

[56] The Utility noted that if the Board determines that the Utility keep separate books for the three original systems, on a go forward basis, the accounting program would

need to be refined. It was noted, however, that some direct costs associated with the three original systems are currently being captured.

[57] An undertaking included a breakdown of which assets attracted the current long-term debt and the original system for those assets. This response indicated that none of the existing debt is for the assets of the Granville Ferry system.

[58] Mr. Isenor, when questioned about using cost causation to set wholesale rates, suggested that wholesale rates be based on costs of the amalgamated utility. He further suggested that a wholesale purchaser is just another customer of the amalgamated utility, and setting rates based on only a portion of the Utility could be seen as preferential.

[59] Mr. Isenor stated that, if wholesale rates are to be based on a portion of the system, all customers of the Granville Ferry system should be treated the same. This could then lead to the argument that the amalgamated Utility should go back to the three original systems.

[60] During the Hearing, Mr. Rooney noted that the Town Utility purchases 28.5% of the total water sold by the amalgamated Utility, but only covers, using current rates, about five percent of the revenue requirement. He also noted that the wholesale rate proposed for the first test year would allow the Utility to recover 21.8% of the total revenue requirement from the Town.

Findings

[61] The methodology for allocating costs to the Town Utility is similar to that used by other utilities. The Board notes, for these other utilities, there is only one source

of supply, and they were not an amalgamation of previously separate systems, of which only one of the original systems provided water to the only wholesale customer.

[62] The Town wants the wholesale rate to only include the expense of operating the Granville Ferry system. The Utility wants to include the expenses of operating all three systems in the wholesale rate. The Board finds, as had been decided in the last rate decision [2009 NSUARB 159], that only the cost from the Granville Ferry system should be included in the wholesale rate.

[63] From the undertakings the Board was informed that the expenses for the Granville Ferry system since the amalgamation have not been kept. This makes it difficult, if not impossible, to use cost causation to establish the basis to determine the wholesale rate. An organization change, such as an amalgamation, should not affect cost causation.

[64] As a proxy, the Utility then must use joint use allocations to derive the rate. In the determination of joint use the physical attributes of the various operating components of the system can be used, such as was applied to Transmission and Distribution. This was not done for four expense categories which were given a joint use percentage of 100%. They, and some of the attributes as noted by the Board, are as follows:

i) Source of Supply
There are three distinct sources not interconnected, of which two are from wells and the third is from a surface water source.

ii) Power and Pumping
Two of the systems have sources near the distribution system while the third has a 10km transmission line. All three have tanks for domestic and fire storage.

iii) Water Treatment
Each system is different: one has a sand filter pre-treatment followed by chlorination; one is chlorination only; and, the third is a dissolved air flotation clarifier with a filtered backwash system.

vi) Taxes
The assessed value of the taxable property in each system is likely to be different.

[65] There are always costs which may not be directly attributable to one system, but must be allocated. The allocation is usually based on some measurable physical attribute (e.g. labour costs allocated by hours spent on each system).

[66] In determining joint use percentages, it is these other physical attributes that can be used to derive an appropriate percentage (as was done for Transmission and Distribution). They should not be reliant on the output (quantity of water produced). They need to be allocated based on the physical element (or elements) that cause costs. A major cost item in a category could be used as a proxy for the total of the expense category. As examples:

i) The main expense for Source of Supply is for buildings. The physical attribute could be square footage of the buildings.

ii) For Power and Pumping the main expense is for electrical. The physical attribute could be power consumption.

iii) For Water Treatment, the main expense is wages and salaries followed by operational materials and supplies. The physical attribute could be a combination of direct hours and the usage of supplies.

vi) For taxes the assessed value of the property in each system.

[67] The above are examples and not necessarily what should be used by the Utility to determine appropriate joint use expense percentages. The Utility is directed to determine the appropriate attributes that can be used to calculate joint use expense percentages so as to come as close as possible to only have the expenses for the Granville Ferry system in the wholesale rate. The evidence to support the attributes and the determination of the joint use percentages are then to be submitted as part of a compliance filing. The compliance filing is to also include the application of these percentages in the determination of the wholesale rate.

b. Retail

[68] The remaining Revenue Requirement is to be recovered from the Utility's retail customers.

[69] The allocations used for the base charge, customer charge, delivery, and production are consistent with the methodology as set out in the *Handbook*, with the exception of transmission and distribution. The Rate Study allocated transmission and distribution as 50% to base and 50% to delivery, which differs from the suggested allocation of 100% to delivery. The Utility explained that the allocation of 50% to base and 50% to delivery is proposed to maintain the base charge at approximately 45% of the revenue requirement. This same allocation was used in the previous rate study and had been approved by the Board in previous decisions. It is also consistent with other similar small water utilities in the Province.

[70] The Utility does not anticipate any change in the number of retail service connections. The consumption volume, based upon the Utility's current total annual retail sales, is estimated to be 152,314 cubic meters in 2016/17, and reduced by 1½% per year

thereafter. This is to reflect the observed trend of reduced consumption in all water utilities.

Findings

[71] The Board accepts the methodology used by the Utility in the calculation of base and consumption rates for each of the Test Years as proposed for the Utility's retail customers.

[72] The Board further accepts the consumption volume used to determine the consumption charges. Rates are to be revised based on any changes to the wholesale rates as determined in the compliance filing.

(E) Schedule of Rates and Charges

[73] In addition to the rates for water supply to its customers, the Application included a number of proposed amendments to its Schedule of Rates and Charges. These amendments are for an increase in the after-hours fee for three activities and an addition to the charges for non-negotiable cheques.

[74] The Utility bills its customers for quarterly consumption. As such, the rates can be effective at the beginning of any quarter. The date targeted by the Utility, revised in consideration of the postponement of the hearing to consider the preliminary matter (para. 7), is January 1, 2017.

Findings

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

[76] The Schedule of Rates and Charges for the Test Years are approved as presented in the Rate Study, with the exception of wholesale and retail rates, which approval is subject to a compliance filing.

(F) Schedule of Rules and Regulations

[77] There were also four amendments proposed to the Schedule of Rules and Regulations. Two are proposed to be moved to the Schedule of Rates and Charges as they are charges to customers.

[78] A third is an amendment to the interest paid on deposits so that it is the same as that paid by the Utility's chartered bank.

[79] The final amendment was to Billing, to clarify how bills are calculated for part of a quarter and to allow the utility to charge seasonal customers the full year's base charge, regardless of turn-offs.

Findings

[80] The Board finds the proposed Schedule of Rules and Regulations is consistent with most other water utilities in the Province which have had recent rate applications, and approves it as requested.

IV SUBMISSIONS

[81] There was one letter of comment received by the Board prior to the hearing from Philip D. Roberts, former mayor and councillor for the Town of Annapolis Royal. In his letter, Mr. Roberts expressed concern regarding the Agreement, for the supply of water at a pre-determined calculation, being excluded from the rate study.

[82] In his letter, Mr. Roberts also noted that the net cost of a well that was drilled, after the Agreement was signed, was shared 50/50 between the Town and the County.

[83] In addition to the letter of comment, one member of the public, Bill MacDonald, addressed the hearing. Mr. MacDonald is a customer of the Town Utility. In his presentation, Mr. MacDonald suggested that the proposed increase of 400% in year one caused significant concern.

[84] Mr. MacDonald also spoke on the validity of the Agreement, and the relationship between the Town and the County. He noted that the validity of the Agreement has to be addressed before the Board can rule on the application at hand.

Findings

[85] The Board has decided the issue of the validity of the Agreement [2016 NSUARB 99] and, as has been discussed earlier, it may be used as evidence in these proceedings, but the Board is not bound by it for approval of rates.

[86] The Board finds that regardless of how assets are purchased (such as the cost sharing of 50/50 of a well), rates must be set to include the full cost of assets, as has been done in all recent water utility rate applications.

V CONCLUSION

[87] The Board has approved a number of changes to the test years' allocation of revenue requirements, but not all. The Utility is to file a compliance filing including a revised rate study, Schedule of Rates and Charges, by January 13, 2017. The Utility should also advise on a revised effective date for all the Schedules.

[88] The Town is to provide its comments to the Board no later than January 27, 2017. The Board will issue an Order after receiving the compliance filing and the comments from the Town.

[89] The amendment to the Schedule of Rules and Regulations are approved, subject to a revised effective date as determined with the compliance filing.

DATED at Halifax, Nova Scotia, this 23rd day of December, 2016.

Murray E. Doehler