DECISION **NSUARB-W-ANNR-R-07**
2008 NSUARB 52

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 ANNAPOLIS ROYAL,** 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, CA, P.Eng., Member
COUNSEL:	**TOWN OF ANNAPOLIS ROYAL WATER UTILITY** Amery Boyer, Chief Administrative Officer Melony Robinson, Director of Finance Kevin McLean, Superintendent of Public Works
INTERVENOR:	**BRANCH WATER PIPELINE ORGANIZATION** Wayne Currie
HEARING DATE:	February 27, 2008
FINAL SUBMISSIONS:	March 7, 2008
DECISION DATE:	May 15, 2008
DECISION:	**Annually adjusted rates to increase effective July 1, 2008 as determined by the Compliance Filing.**

I SUMMARY

[1] The last Annapolis Royal Water Utility (the "Utility") rate hearing was held on January 10, 2006. Both the current and the previous rate studies were prepared by staff. The Rate Study supports the Application for general water usage rate increases of between 37% and 47% in the year ending March 31, 2009, and between 2% to 4% in each of the next two years.

[2] The hearing was held in the Town of Annapolis Royal Council Chambers after due public notice was given in the Annapolis Spectator and the provincial edition of the Chronicle Herald. The Utility was represented by Amery Boyer, Melony Robinson and Kevin McLean. Wayne Currie, representing the residents of one subdivision, was registered as an Intervenor. He is opposed to the magnitude of the increases for them. In addition to the Intervenor, presentations were made by Eugene Hay, Reg Ritchie, Frank Pugh, Byron Mersereau, and Ian Davidson and Trish Fry on behalf of the Annapolis Royal Historic Gardens ("Historic Gardens").

[3] The Board approves an increase to the annually adjusted rates, as determined by a Compliance Filing.

II INTRODUCTION

[4] The water source for the Utility is a well field in the County that jointly serves this Utility and the Granville Ferry Water Utility. The Utility supplies water to 366 metered customers in Annapolis Royal and the County, and to two subdivisions, located in the

County, that are supplied through a 2" service line. The distribution system in each subdivision is privately owned. The Utility is in the process of installing meters for each subdivision service line.

[5] The Utility has completed extensive engineering studies on its system to define a systematic approach for new additions and the replacement of older infrastructure. It is also still incurring losses over the past two years, although smaller as a result of the previous rate application. It still has an operating fund surplus. For these reasons it has requested changes in its rates for the three test years ending March 31, 2009, 2010 and 2011.

III OPERATING EXPENDITURES

[6] The base used by the Utility to determine the expenditures for the test years is the forecast for the year ending March 31, 2008. The forecast in the application for the year ending March 31, 2008 showed a deficiency of $19,531. As of the date of the hearing, the loss for the year ending March 31, 2008 was being forecasted to be $36,000; an increase of $17,000 over that used to determine the test years.

[7] All the operating expenses were increased over the forecast year, 5% in the first and second test years and 4% in the third test year, except for administration and depreciation. Administration was adjusted for the reduction of a seasonal labourer and an addition of an apprentice to the Superintendent of Public Works. This was confirmed in an undertaking from the Utility that for the test year ending March 31, 2009, these changes

are fully reflected. The cost for administration was increased by 3% for the following two test years after this adjustment.

[8] Depreciation was calculated based on the asset additions and on the depreciation schedules from prior years.

[9] In the forecast year March 31, 2008, there is an increase of $25,000 for professional services. This is a new item which has not appeared in prior income statements. This expense was increased by 4% over the three test years. The Utility anticipates that they will, in conjunction with the Town, complete a fair amount of work on infrastructure and hence the requirement for professional fees. As explained at the hearing:

> Boyer: So, all of the projects, including the water loss investigations, when we're into a solution, involve Hatch, Mott, MacDonald, the Town's engineers.
>
> And so we anticipate that will continue, because we already -- we do rely on external consulting services.
>
> Board: So you don't capitalize the engineering costs?
>
> Boyer: As much as we can. When we can, we do. Yes, they're assigned -- are all coded to capital.
>
> But I think the problem comes in with preliminary investigations. So, if it's sorting out the problem, ...
>
> [Transcript, p. 30]

[10] The cost for water treatment increased from $6,255 in the year ending March 31, 2007 to $15,200 in March 31, 2008. Ms. Robinson explained in a reply to an Information Request as follows:

> The water treatment expense has in fact increased by this amount. The distribution pump broke down in Lequille and we had to hire an electrician to rebuild the pumps. In addition, we have bought a spare pump. We also had to replace the motor.
>
> [Exhibit A-2, IR-13]

[11] This could be considered a one-time cost that may not be repeated in future years. As explained at the hearing, this could be considered a contingency and one which the Utility wants to retain.

[12] The depreciation expense was calculated on the additions using the straight line method at the rates approved by the Board, with one exception which was the depreciation on pumps. In the calculation of depreciation the carry-forward amount included depreciation for pumps at the same amount for all the test years. In response to an undertaking it was reported that the pump additions occurred in the following years:

1998	$7,865
2004	9,680
2007	1,014
	$18,559

[Undertaking U-2]

[13] The Utility has noted that the large increase in revenue requirements results in a large increase in rates for the first test year followed by modest increases in the two

following test years. The Utility would prefer to more evenly spread out the impact of the rate increases over the three test years.

Findings

[14] There are no pump additions in the test years. This equipment is written off on a straight-line basis over five years. It appears that the depreciation expenses attributed to pumps has been over-stated for a couple of years (e.g. the depreciation on this item for 2008 and 2009 should be $2,138 not the $3,712 as recorded in the Rate Study). This declines to $202 in the second and third test years. The Board, therefore, finds that the depreciation expense has been overstated in the first test year by $1,574 and by $3,510 in each of the two following test years.

[15] The Board finds that the total of the operating expenses for the Utility for the year ending March 31, 2008 may be understated. This is partially offset by the "contingency" amount of a one-time cost in the water treatment that has been continued in the test years and by the overstatement of depreciation. The Board also notes that the operating expenses include a rather large amount for professional fees which are anticipated to continue over the test years, but have some degree of variation at the discretion of the management of the Utility.

[16] The Board does not accept the operating expenses as filed for the test years. The Board requests the Utility to amend the operating expenses for the test years by using the most recent forecast for March 31, 2008 as a base; correct the depreciation calculation;

and reduce the base for water treatment by the one-time cost. It is anticipated that these changes, in conjunction with the changes to non-operating expenses discussed later, will reduce the requested rate increases so as to not exceed those which were advertised.

IV RETURN ON RATE BASE

[17] The non-operating expenditures (a method used to calculate the needed return on rate base), in the rate study, explicitly shows two components: the principal and interest on the debt repayments. There is a third component which is not explicitly shown on the test year statements and that is the application of depreciation as an offset against the principal portion of the debt repayments.

[18] The non-operating expenditures were explained by the Applicant, as follows:

> The debt principal less the depreciation fund, that is exactly what that is. That would be our debt, minus our depreciation and the interest on that debt.
>
> [Transcript, p. 33]

[19] In the Board's 2006 decision, the Utility was allowed to apply some of the depreciation funds against the principal portion of debt. In part, that decision read as follows:

> [21] To discontinue the application of depreciation funds to debt could cause a large increase in rates, especially when there are other upward pressures on the operating expenses. Accordingly, the Board approves the continued application of the historical depreciation expense to fund debt repayment. For the sake of clarity, this is established at $30,000 per year, starting in the second test year ending March 31, 2007. To enable the Utility to gradually increase rates, and to fund its depreciation reserve, the amount to be used for debt repayment is to be reduced by $6,000 in each subsequent year.
>
> [2006 NSUARB 24]

[20] The Utility requested at the hearing that they be allowed to continue the application of all depreciation for the reduction of the principal portion of the debt, as Ms. Robinson stated:

> Yes, we'd like to use that money to pay down the debt.
>
> [Transcript, p. 57]

[21] The Utility expects to have a very aggressive capital improvement program over the next number of years. All the infrastructure and replacement needs have been identified and categorized by a series of engineering studies in priority order of which a rank of 1 is the highest and 10 is the lowest. As explained by Ms. Boyer at the hearing:

> ... We have about 16 priority 1 and 2. There's only one priority 2 job to do.
>
> So, those are pipe that need to be replaced, like, now. Because of money, we have to go strictly by priority.
>
> . . .
>
> So, the capital requirements for the next few years are very heavy, and you've got the list of them there...
>
> [Transcript, pp. 17-18]

[22] Most of these capital projects do qualify for funding from the federal and provincial governments. The Utility has been successful in usually achieving two-thirds funding from these other sources. The remaining funding is financed from debt issues. The Utility anticipates that it will have to borrow $200,000 for the first test year, $450,000 for the second test year, and $150,000 in the third test year in order to meet its infrastructure needs. The increase in debt payments that this entails is further exacerbated by a balloon payment of $75,000 (an increase from $25,000) required for previously issued debt in the first test year. The result of the need for this increase in the repayments, reduced by the

application of all depreciation to all the principal payments, means non-operating expenditures will increase from the $37,162 in March 31, 2008 to $114,612 in the first test year and then dropping to $110,498 in the second test year and $108,615 in the third test year.

[23] The balloon payment required in the first test year is a problem. As stated by Ms. Robinson at the hearing:

> We can't make that balloon payment, so we'll be refinancing.
>
> [Transcript, p. 49]

[24] The heavy capital expenditures required by the Utility over the next number of years does not include a contingency for the sole water supply line. As Ms. Boyer stated at the hearing:

> And the final thing that's not in here is a contingency plan for a water break across the Causeway.
>
> [Transcript, p. 20]

[25] However, as discussed at the hearing, there is now a contingency plan in place to have in storage spare parts in case a break does occur. The Utility has estimated that it has approximately three days of water supply in its reservoir in case a break occurs. After that a boil water order will have to be issued. The Utility anticipates that with the spare parts on hand that a repair could be made to any unforseen possible emergency that may occur in the causeway portion of the supply line within the three day window of opportunity.

[26] Overall, the Utility believes that the aggressive maintenance program for the infrastructure will result in high ratings for durability. As such, they do not anticipate any need for further investment in infrastructure in the medium term.

[27] The Utility has calculated that it needs a return on rate base of 6.88% in the first test year reducing to 5.18% in the second and 4.96% in the third test years. This allocation used the non-operating expenses less non-operating revenue to calculate the estimated return.

Findings

[28] The systematic approach that the Utility is using to upgrade its infrastructure so that it will not have a large problem in the future is to be commended. With this large investment in present maintenance, the need for depreciation funds for future breakdowns is minimized. Accordingly, the Board will allow the Utility to use all of its depreciation funds for the three test years, as requested in the application, to offset principle repayments of debt. This application of the depreciation funds should be reviewed after the end of the three test years to see if it is still wise to continue this program of depleting the revenue for future repairs. An engineering assessment report, at that time, would help assist the Board in determining whether or not the use of depreciation funds for principal repayments should be continued after March 31, 2011.

[29] As noted earlier in this decision, the Utility has indicated that it would prefer to smooth out the rate increase over the next couple of years rather than having a large increase in the first test year with smaller increases thereafter. One way that could accommodate this request is if the balloon payment that is due in the first test year is

refinanced, keeping the repayment of that debenture at the established $25,000 per year. This would reduce the revenue requirements in the first test year by $50,000.

[30] The Board, therefore, allows a principal debt repayment of $70,497 in the first test year. This is the gross amount before the application of any depreciation funds. If the Utility is unsuccessful in renegotiating the reduction of the principal repayment, it should apply to the Board for relief.

[31] The Utility is to recognize this reduced principal repayment in its Compliance Filing.

[32] The effect of the above will be to reduce the requested return on rate base from that calculated in the Rate Study. The return on rate base is found by the Board to be in an acceptable range. The return on rate base, reduced as outlined above, is approved.

[33] Subsequent to the public hearing, the Applicant requested that the Board clarify the calculation of the Utility's return on rate base for the year ended March 31, 2007, as indicated in the Utility's Financial Statements. It appears that the Utility has followed s. 3130 of the *Water Utility Accounting and Reporting Handbook* ("Accounting Handbook") in the calculation of a rate of return on rate base of 5.11% for the March 31, 2007 Financial Statements. There are slight differences in this calculation for the rate application, which uses non-operating expenses less non-operating and other revenue, and the financial statements which uses net operating revenue. The other revenue in the Rate Study was classified as non-operating whereas it was classified as operating in the financial statements. This change in classification resulted in slight differences in the ensuing

calculation. The Board clarifies that the calculation used for the 2007 Financial Statements is correct.

V ALLOCATION OF REVENUE NEEDS TO CUSTOMERS

[34] The allocation of expenses between fire protection and the various categories under revenue required from customers was done using the same ratios as employed in the last Rate Study. As was done in the prior study these allocations have not been supported by a rigorous analysis of expense behaviour or causation by activity. As well the calculation of the allocations was done inconsistently. Some of the percentages were applied to the total expense, while others were applied to the net expense after the fire protection allocation.

[35] In response to several of the information requests the Utility recalculated the fire protection charge allocation. The fire protection charge allocation is now expected to be $118,006 in the first test year, increasing to $121,226 in the second test year and $123,786 in the third test year. These amounts are slightly higher than that which was used in the advertisement for the public hearing. Overall the increase is less than 1%.

[36] The Utility also used conventional methodology to allocate the revenue required from customers to base charge and consumption charge. In determining base charge the Utility assumed there is no increase in the number of meters and the same for the consumption charge with no increase in the amount of consumption. The consumption charge is based on the actual measured consumption of the prior year.

[37] The Utility noted that the charge for water consumption is based on a consumption volume that is approximately two-thirds of the amount that is purchased from the County. As such, the Utility has embarked on a program of looking for water losses. As stated at the hearing:

> ... Now, why the water loss investigations are important is that's the unknown piece. That's the part that we can't -- we have no idea what we're going to be up against then, and our Water Rate Study takes that into account.
>
> [Transcript, pp. 19-20]

[38] In the allocation of expenses, professional fees was allocated 44% to the fire protection allocation. The reason for this high allocation to fire protection was that most of the upgrades and engineering that is required to be done is for the increased capacity for fire: increased pipe size and the addition of new hydrants.

[39] With regard to the two subdivisions which are supplied from the Utility's water supply there are plans to install two 1½ inch meters for each supply line. At present the subdivisions are charged on a flat rate and are not charged based on actual consumption.

Findings

[40] The Board accepts the cost allocations as prepared in the Rate Study. The Board advises the Utility, however, that in its next application a more rigorous analysis of expenses should be done so that they can be properly allocated to the various categories.

[41] The Board notes that the number of meters used in the calculation for base charges is incorrect. It has not allowed for the increase of two 1½ inch meters that will be added for the two subdivisions. The Board also notes that the consumption, which is based

on metered consumption, does not include the assumed consumption of 40 cubic metres per quarter per household in the two subdivisions outside of the town boundary.

[42] The Board orders the Utility, in its Compliance Filing, to recalculate the fire protection charge using the same methodology as was used in the Rate Study, however, using the new determination of expenditures as outlined in the Operating Expenses and Non-Operating Expenditures sections of this decision.

[43] The Board further orders the Utility to adjust for the increase of the two 1½ inch meters in the calculation of meter equivalents and the corresponding change in base charges; plus adjust for the increased assumed consumption in the subdivisions for the consumption charge. This will result in a reduced base charge per meter equivalent and a reduced consumption charge per cubic metre.

VI SUBDIVISION RATES

[44] There are two subdivisions, located outside the town limits, which are served from a 10" transmission line. The homes in these subdivisions are not individually metered. The line(s) from the transmission line of the Utility that services these two subdivisions is privately owned and operated. One is the Branch Water Pipeline and the other is for Hillside Drive. In total, there are 25 homes served by these two subdivision lines. They start as two inch feeder lines from the Utility's transmission line.

[45] The Branch Water Pipeline Organization was represented by the Intervenor, Wayne Currie. This organization represents 15 residences. In summary, their main

objection is that the increase applicable to their residences is significantly higher than the increase proposed for other Utility customers. It is also, they believe, an inferior service because of the size of line that is used to provide water to the homes resulting in very much reduced pressure at the end of the privately owned line. As was stated by Mr. Currie:

> As long as the service provided to the Branch Water Line members is inferior to that provided to the other users of the Town Utility, the Branch Line members object to paying the same rate. I think that's a pretty straightforward thing to say.
>
> And the members of the Branch Line, you know, object to that 107 percent increase, although it's understood.
>
> You know, we know that costs are rising everywhere, and we know that rates will increase. There's no doubt about that, and we want to pay our fair share.
>
> But it's highly unlikely that, you know, costs have gone up [of] 107 percent since the last rate increase.
>
> So, we'd be happy, you know, if an amount that was set would be sort of equal to or less than the average of what other people are paying in the system.
>
> [Transcript, pp. 106-107]

[46] The objections as voiced by Mr. Currie were also echoed by Eugene Hay who said he was speaking on behalf of the residents of Hillside Drive. He indicated that at the last hearing the town officials stated they would work with the residents to find a solution to some of the problems they were having with the water supply and pressure. As he stated:

> I was here at the last meeting, and prior to that meeting, there was discussion with the Water Utility, and also elected officials of this Town who did indicate a willingness to work with us.
>
> However, according to the document at Appendix A, while it's clear that they sought legal advice to determine whether or not we had responsibility for the infrastructure, there has been no communication from the Town of Annapolis Royal on this spirit of willingness since December of 2005.
>
> [Transcript, pp. 116]

[47] Mr. Hay further went on to inquire as to infrastructure, stating that:

> Well, we don't have infrastructure. We don't have the infrastructure that you have. We have our own infrastructure.
>
> So my question is, why are we paying for infrastructure that somebody else has got [inaudible]?
>
> [Transcript, pp. 117]

Findings

[48] The Utility is not responsible for the upkeep or water pressure of privately owned water distribution systems such as exist for the two subdivisions. Both subdivisions are served by a two inch line which is tapped into a 10 inch transmission line that is maintained by the Utility. Accordingly, the Board finds that whether or not there is low pressure problems within the subdivision is not an issue for the Utility. The Utility is only responsible for ensuring that it delivers quality water at an appropriate pressure at the point of connection to the two 2" subdivision lines. It is up to the subdivision pipeline organizations to find their own solutions to these alleged pressure problems. If that solution is to have the Utility take over the total operation of the branch lines in the subdivisions then they will have to be upgraded to meet Utility standards. These upgrades, and any attachments which may be required, would have to be financed such that no capital cost would flow to the existing customers of the Water Utility.

[49] All customers of the Water Utility benefit from the infrastructure upgrades which are required. In accordance with good regulatory practices these costs are shared amongst all customers of the Utility on an equitable basis. The Board finds that the method

that the Utility is using to allocate these costs against all customers, including the two subdivisions, is appropriate.

VII DETERMINATION OF CUSTOMER RATES

[50] Reg Ritchie, an Annapolis County Municipal Councillor, and a resident of Lequille, raised concerns about the large increase in water rates for the residents of Lequille. He stated that approximately 50% of the residents of Lequille are senior citizens and are on fixed incomes. His concern is that these individuals, who are facing increases in all other necessities, will find it difficult to absorb the proposed increases in the water rates.

[51] Mr. Ian Davidson and Ms. Trish Fry made representations on behalf of the Historic Gardens. They anticipated that they will be adversely affected by the increase in water rates as they are a large consumer. They have undertaken studies to try and determine if they are losing water and where there could be savings. As stated by Ms. Fry:

> So, you know, we're going to a high level of treatment, and the use isn't appropriate for the level of treatment.
>
> So, there has to be some work done. So, we don't disagree. We know that it's a big issue for the Gardens, but we have to find a solution, using drinking water for irrigation is the point.
>
> [Transcript, p. 128]

[52] A special rate has been requested by the Utility for the home of Mr. Frank Taylor whose residence is at the end of the transmission line in Lequille. He provides an unpaid service to the Utility by monitoring the line and advising when the water stops. This

is also a sampling station used by the Utility. To compensate Mr. Taylor for this service to the Utility a discount rate of 50% of his normal billing is being requested.

[53] The Utility is also asking for an increase in the sprinkler service rates. As expressed in an Undertaking:

> There are 5 institutions that pay for the sprinkler system: Annapolis Royal Nursing Home, Health Center, ARRA, AWEC, King's Theatre. In 2007 the cost to repair the Sprinkler System at the King's Theatre was just under $1,400.00. Since the total annual revenue generated by the 5 institutions that pay for the sprinkler system is only $1[,]450.00, it would take approximately 30 years to repay this. An increase of 3% is only an additional $45.00 more per year that providing this service would cost.
>
> [Undertaking U-4]

Findings

[54] All the residences in Lequille get the same quality of water service as all other customers in the Water Utility's franchise area. Some of the residents may be senior citizens and on a fixed income, however, they are treated no differently than the other Utility customers who have the same size meter and service line. The Board, therefore, finds consistent with other such requests and other utilities in the province, (see for example, *Nova Scotia Power Incorporated* 2005 Rate Hearing decision, 2005 NSUARB 27) that this differentiation of customer by income level is not sufficient for them to be considered as a separate rate class.

[55] The Utility did not apply for, nor did the Historic Gardens provide a rationale as to why they should be treated differently from all those who have the same size meter and consumption of water as they have. The ability to pay has not been accepted as an appropriate criteria to distinguish between customers in establishing rates. It is understood

that the water that is required may not have to be to drinking quality standards, but that is an issue that the Historic Gardens will have to resolve on their own as long as they are supplied with drinking quality water from the Utility. The Board, therefore, finds that it cannot give a separate rate for the Historic Gardens. They must be charged at the same rate as other customers with similar delivery characteristics.

[56] In the determination of rates to be submitted in the Compliance Filing with the Board, the Utility should determine the separate unmetered rate for each subdivision. This unmetered rate calculation is to be charged to them before the meters are installed. This calculation is to include the base charge for a 1½ inch meter, plus an assumed consumption of 40 cubic metres per quarter per household in that subdivision. It is understood by the Board that one subdivision has 15 homes in it, while the other has nine. The rate should specify that this unmetered rate shall only apply until the meters are installed and a reading is taken at the beginning of a billing cycle. After this, the normal billing of a base charge plus actual consumption will start.

[57] The Board also understands that there might be one or two other unmetered customers in the Utility's franchise area. The one that was mentioned was Holmes Garage. In submitting its rates and charges in accordance with the Compliance Filing, the Utility should calculate an unmetered rate based on a 5/8 inch meter, plus an assumed consumption of 40 cubic metres per quarter, unless a verifiable argument can be made for a smaller consumption figure.

[58] The Board finds the increase in sprinkler service rates to be reasonable. The new rates are approved.

[59] The Board cannot approve a special rate for Mr. Taylor. He must be billed using the same criteria as those customers of the same rate class (meter size and consumption). If the Utility wishes to compensate him for his services it should be done as for any other supplier of services.

[60] Paragraph #8 in Schedules A, B and C should be re-titled to, "The Installation or Re-connection of a Water Meter". This change was discussed and requested by the Utility during the hearing.

VIII RULES AND REGULATIONS

[61] The Utility did not request any changes to its rules and regulations.

IX CONCLUSION

[62] The Utility is requested to re-file its rates as a Compliance Filing in accordance with the directions given in this decision. In particular, this Compliance Filing should take into consideration the following:

(a) the update of the March 31, 2008 forecast and the redetermination of the revenue requirements for the test years;

(b) the elimination of one-time costs in water supply and the correction of depreciation expense;

(c) the refinancing of the balloon payment in the first test year;

(d) the determination of the fire protection charge based on the revised revenue requirements;

(e) the adjustment to the increase in meter equivalents and the increase in assumed consumption;

(f) the determination of a flat rate for the two subdivisions based on actual number of households in each; and

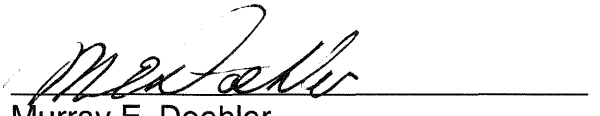
(g) the determination of an unmetered rate for those one or two customers still not metered.

[63] The Schedules A, B, and C should be revised and resubmitted in accordance with any changes as requested for this Compliance Filing.

[64] On the assumption that the Compliance Filing is completed in a reasonable time and meets all Board requirements, the new rates for the first test year will become effective July 1, 2008.

[65] An Order will issue upon the receipt and Board approval of the Compliance Filing.

DATED at Halifax, Nova Scotia, this 15th day of May, 2008.



Murray E. Doehler