DECISION **2014 NSUARB 84**
M06030

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 THE COUNTY OF KINGS** on behalf of the **GREENWOOD WATER UTILITY** for Approval of Amendments to its Schedule of Rates for Water and Water Services and its Schedule of Rules and Regulations

BEFORE: Murray E. Doehler, CA, P.Eng., Member

APPEARING: **MUNICIPALITY OF THE COUNTY OF KINGS**
Gerry A. Isenor, P.Eng.
G.A. Isenor Consulting Limited

Blaine Rooney, CA
Blaine S. Rooney Consulting Limited

Scott Quinn, P.Eng.
Director of Public Works

Kim Durling, CA
Director of Finance

HEARING DATE: March 18, 2014

FINAL SUBMISSIONS: March 19, 2014

DECISION DATE: **May 26, 2014**

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

Document: 224984

I SUMMARY

[1] The Municipality of the County of Kings ("Municipality" or "County"), on behalf of the Greenwood Water Utility ("Utility") applied to the Nova Scotia Utility and Review Board ("Board") for amendments to its Schedule of Rates for Water and Water Services and its Schedule of Rules and Regulations ("Application") 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, 2013 and October 1, 2011, respectively.

[2] A Rate Study to support the Application, dated August 19, 2013 was prepared by G.A. Isenor Consulting Limited in association with Blaine S. Rooney Consulting Limited and was submitted to the Board on December 16, 2013. The Board issued Information Requests ("IRs") on January 24, 2014, to which responses were filed on February 21, 2014. Included in the IR responses was a revised Rate Study ("Revised Rate Study") which contained: corrections to the projected water treatment and transmission and distribution expenses; corrections to the allocation of the tax expense to the calculated revenue requirements for public fire protection and base and consumption charges; a correction to the calculation of the return on rate base calculation; and a revision to the proposed transfer of revenue requirements from the commodity to base charges in 2015/16.

[3] The Application proposed increases in rates for the Utility customers in each of 2014/15, 2015/16 and 2016/17 ("Test Years"). For the 5/8" metered, residential customers, the proposed average increases in the Application are: 11.5% in 2014/15; 10.2% in 2015/16; and 5.5% in 2016/17. For all other metered customers (i.e., meter

sizes of 1", 1 ½" and 2"), based upon the average quarterly consumption of each meter size, the proposed increases are between 8.2% to 16.0%, 9.3% to 11.5% and 5.0% to 6.0%, respectively in each of the Test Years.

[4] The proposed increases to the annual public fire protection charge, which is paid to the Utility by the Municipality, are 11.3% in 2014/15, 25.3% in 2015/16 and 13.3% in 2016/17.

[5] The public hearing was held at the New Beginnings Centre in Kingston, on March 18, 2014, after due public notice.

[6] Gerry Isenor, P.Eng., of G.A. Isenor Consulting Limited and Blaine Rooney, CA, of Blaine S. Rooney Consulting Limited, represented the Utility. The Utility was also represented by Municipal staff: Scott Quinn, P.Eng., Director of Public Works and Kim Durling, CA, Director of Finance. The Board received one letter of comment prior to the hearing. Al Belliveau, a Village of Greenwood ("Village") Commissioner spoke during the hearing to request that the Applicant provide a summary of the Application at a future Commission meeting, to which the Utility agreed. No other members of the public spoke during the hearing. The Applicant's presentation during the public hearing was based upon the Revised Rate Study.

[7] The Schedules of Rates and Charges and the Schedule of Rules and Regulations are approved, as amended in the Revised Rate Study and the Utility's responses to the IRs.

II INTRODUCTION

[8] The Utility provides water service to both the Village and Sandy Court in Aylesford. Two groundwater production wells are the source of supply for the Village.

The raw water is disinfected with UV and both chlorine and caustic soda are added prior to entering two 350,000 gallon reservoirs which allow for adequate chlorine contact time. The treated water is transmitted to the customers in the Village service area through a 14 inch diameter main. Since the Utility's last rate application in 2011, the Applicant, in October 2011, assumed ownership of the Clements Park Subdivision water system, which was previously owned by the Department of National Defense ("DND").

[9] Groundwater production wells (a primary and two backup) service the Sandy Court system. The source water had been experiencing excessive mineral content, causing both aesthetic quality issues and operational difficulties. Since the 2011 rate application, the Utility has switched the backup and primary wells which have resulted in improvements in both customer satisfaction and operations. The raw water is treated by chlorine injection and is then passed through four contact tanks. The treated water is transmitted to the customers in the Sandy Court service area through a two inch and a four inch main.

[10] At the time of the last rate application, the Utility was finalizing its well head protection zones and the development of a source water protection plan for each of the Village and Sandy Court systems in order to meet Nova Scotia Environment ("NSE") Regulations. With respect to the Village system, in 2012 Municipal Council formally adopted the well head protection zones as a part of Municipal Planning Strategy and Land Use By-Laws. For the Sandy Court system, the source water management and monitoring plans were approved in 2012. The source water protection plans for both systems are awaiting approval by NSE. The Applicant confirmed that it currently is in compliance with all NSE Regulations.

[11] During the test years of the previous Application, the Utility had planned to begin locating another production well as a separate supply source. This project has now commenced and four test wells are completed, with one more scheduled. The hydrologic assessment of the wells is expected to be completed by May 2014. The costs associated with this project are included in the Application in 2013/14 ($200,000) and 2014/15 ($100,000).

[12] The Utility included temporary water sales to DND in its last rate application. The sales were expected to continue until the end of September 2011, while DND dealt with contamination issues with its own water supply. The Applicant indicated that DND has been using Utility water since April 2010, with the exception of a period between July and December 2012. The latest estimate is that DND will be on its own water supply by May 2014, accordingly the Rate Study does not include any DND water sales over the Test Years.

[13] The Utility currently serves 614 customers, all of which are metered. The Application projects annual growth of seven residential customers over each of the Test Years.

[14] The Application was presented to the Board based upon the Utility's need to meet its present financial requirements, and to provide funds for increased operating costs and necessary capital improvements.

III REVENUE REQUIREMENTS

1. Operating Expenses

[15] For the year ended March 31, 2013, the Utility had an excess of revenue over expenditures of $71,000 and an accumulated operating deficit of $94,500. The

Revised Rate Study, which corrected the estimated water treatment and transmission and distribution operating expenses, estimates that the accumulated operating deficit will be $100,563 in 2013/14. Based upon the assumptions of the Rate Study, without a rate increase, the Utility is projected to operate at an increasing loss in the Test Years, resulting in an accumulated operating deficit of $488,512 by 2016/17.

[16] The Utility's operating revenue from metered sales is estimated to decline from $531,000 in in 2012/13 to $455,413 in 2013/14 and is projected to further decline to $411,554 in 2014/15 due to the loss of sales to DND, which, at the time of the hearing was expected to be within the next month. Mr. Isenor confirmed that this additional revenue has contributed to lowering the Utility's deficit. He added that the estimated accumulated operating deficit in the 2013/14 was based upon sales of water to DND for only six months of the year, which will now actually occur for the entire year. He added that this will have the impact of reducing the estimated accumulated operating deficit in 2013/14 in the range of $30,000 or less.

[17] The Utility provided a description of its budgeting process in response to the IRs, noting that staff prepares budgets based upon a line by line review of the previous year, and estimates for the current year, while looking ahead for unusual expenditures in the upcoming years. The Applicant confirmed in response to the Board's direction in the previous rate application, it has reviewed cost allocations between the Utility and the Municipality using timesheets. It noted that the Rate Study was prepared based upon the average allocations as had been determined from this review.

[18] Mr. Isenor explained that the estimated operating expenditures in 2013/14 were based upon either the 2011/12 amounts with adjustments due to previous experience, or on the 2012/13 actual amounts as they became available, with some adjustments due to changing focus. He stated that the source of supply expense decreased as there was a one-time expenditure in 2012/13 which is no longer necessary. The power and pumping expense in 2013/14 is estimated to decrease due to an adjustment in the operation labour expense for the year, with the following year projected to be more in line with the 2012/13 actuals. Mr. Isenor noted that the approximately $40,000 increase in the depreciation expense in 2012/13, over the previous year, is associated with the addition of the Clements Park system and a new source well.

[19] In response to the IRs, errors in the Rate Study were identified in the estimated operating expenses in 2013/14 for both water treatment, and transmission and distribution. The water treatment expense was reduced from $34,000 to $25,000 due to an overstatement of expenses. The transmission and distribution expense was increased from $32,500 to $40,000 due to a missing cost account. Both of these changes, and the resulting changes to the projections of these two expense items over the Test Years, were reflected in the Revised Rate Study. A further error in the tax expense in 2013/14 was identified in the IR responses which had no impact on the revenue requirements for the Test Years.

[20] The projected operating expenses in the Test Years are based upon the Utility's budgets, and are generally determined by the previous years' figures plus 3% for inflation. An exception is the chemical expense, which is increased by 5% in each of

2014/15 and 2015/16 to allow for projected price volatility. The projected depreciation expense is based upon the budgeted capital additions over the Test Years.

[21] At the time of the last rate application, the Utility's non-revenue water was approximately 14% and it had budgeted for the costs of a leak flow study in 2011/12. The Applicant noted that it completed the study in March 2013 which concluded that there were no substantial leaks in the distribution system. The Utility's current non-revenue water is 15.4%.

[22] The depreciation rates for the proposed asset additions are as set out in the *Water Utility Accounting and Reporting Handbook* ("*Accounting Handbook")*, with the Utility providing an explanation for those not specifically identified.

Findings

[23] The Board accepts the Utility's explanation of its budgeting process as well as the allocation of costs between the Municipality and the Utility, which was reviewed since the last application. The Board encourages the Utility to review the allocations on a regular basis to ensure that an accurate portion of its costs are recovered.

[24] The Board notes that the temporary sale of water to DND has resulted in increased revenues for the Utility, with relatively small associated increases in expenses. This has resulted in improving the Utility's financial position. As confirmed by the Applicant, the Utility's estimated operating deficit in 2013/14 may be less than that contained in the Rate Study, as the sales continued for a full year, rather than the projected six months. However, even with the increased revenue, the Utility will have an accumulated operating deficit at the end of the year. Therefore, the Board accepts

the 2013/14 operating revenue information as filed, with the understanding that the additional revenue can be used to lower the Utility's accumulated operating deficit.

[25] There were a number of fluctuations in the operating expenses estimated for the 2013/14 fiscal year, the basis of the projections over the Test Years. The Utility provided an explanation of the estimates and revised the estimates of water treatment, transmission and distribution and taxes expenses to correct errors. The Board accepts the estimated operating expenses for 2013/14, as contained in the Revised Rate Study.

[26] The Board finds the projected 3% annual increase in operating expenses over the Test Years, to be reasonable. The Board accepts the projections, including the projections of chemical expenses, which are similar to the projections in recent rate studies of other water utilities.

[27] The Board accepts the deprecation expenses projected in the Test Years, which are either in accordance with the *Accounting Handbook* or are based upon a reasonable service life.

[28] It appears that the Utility currently does not have an issue with non-revenue water and has recently completed a leak flow study. Although there are no costs associated with leak detection in this Application, which the Board accepts, the Board encourages the Utility to continue with its proactive approach in leak detection through periodically conducting leak flow studies.

2. Capital Budget

[29] The Utility's capital projects for 2013/14 total $2,188,932, and include: a new well ($200,000); distribution reservoir ($228,932); distribution mains ($1,700,000); meters ($50,000); and the rate study ($10,000). The Applicant explained that the

distribution main project relates to a water service extension to Tremont, with the majority of the cost funded by the Municipality through the Gas Tax rebate, which also provides the funding of the entire cost of the new well and the distribution reservoir. The funding of the total 2013/14 capital budget is from Gas Tax ($1,585,955), depreciation fund ($120,000) and long term debt ($482,977).

[30] The Utility's projected capital program totals $800,000 in 2014/15 and $703,333 in each of 2015/16 and 2016/17. The capital budget is for a new well ($100,000), purification equipment ($50,000) and distribution mains ($650,000) in 2014/15, and distribution mains ($683,333) and meters ($50,000) in each of 2015/16 and 2016/17. The Applicant explained that the significant distribution main expenditures are related to the extension of central water service to an area around Bowlby Park in the Village which experienced a groundwater contamination by the Tetrachloroethylene (a dry cleaning agent) spill in 2004. Since the spill, the Village Commission has requested that Utility service be extended to the affected area. The Test Year expenditures relate to the phases of the extension which are closest to the contaminated areas.

[31] The capital expenditures in the Test Years are proposed to be funded as follows:

	2014/15	**2015/16**	**2016/17**
External Funding (Municipality)	$550,000	$533,333	$533,333
Depreciation Fund	140,000	170,000	170,000
Long Term Debt	110,000		
Total	$800,000	$703,333	$703,333

[32] Mr. Isenor explained that the funding from the Municipality relates to an anticipated agreement with the property owners affected by the contamination that

would be served by the watermain extension and charged through a frontage charge or betterment charge. The Applicant further noted that the extension project would not proceed without the support of future customers to be served, or external funding sources.

[33] The projected funding through long term debt is based upon a 15 year term and an interest rate of 5.5%.

[34] The Rate Study projects the depreciation fund balance to be $145,202 at the end of the Test Years, after deducting funding for the capital projects, as outlined above and the proposed transfer of depreciation funds to non-operating revenue, discussed below.

Findings

[35] The Board accepts the Utility's proposed projects in the Test Years, which includes the costs associated with a new production well source of supply, and the watermain extension to serve areas where private wells have been contaminated. It is the Board's understanding that the latter project will not proceed without external funding.

[36] The Board accepts the Utility's explanation for the proposed funding, through long term debt, external funding from the Municipality and depreciation funds, as set out above. The Board reminds the Utility of the importance of maintaining sufficient depreciation reserves for asset replacement.

[37] The Utility is reminded that inclusion of the proposed capital projects in the Rate Study does not constitute Board approval of these projects. Separate Board

approval is required prior to construction for all capital projects in excess of $250,000 as set out in s. 35 of the *Act*.

3. Non-operating Revenue and Expenditures

[38] The Rate Study included one item of other operating revenue, Sundry, which is projected to remain constant at $900 over the Test Period. The Applicant explained that the sundry revenue relates to interest on overdue payments and administration fees for new Utility customers.

[39] Non-operating revenue is projected to include a transfer from the Utility's depreciation fund in the amounts of $70,000 in 2014/15 and $30,000 in 2015/16. The Rate Study stated that the purpose of the proposed transfer is to moderate the rate increases and that the funds would be used towards paying the principal portion of the Utility's outstanding debt. The Applicant explained that the magnitude of the transfers proposed was to result in relatively equal increases to customer rates in the first two Test Years, while maintaining a reasonable depreciation fund balance. It was indicated, in response to the IRs, that without the proposed transfers, the rates to an average residential customer would increase by 18.7%, 4.8% and 2.2% respectively, in each of the Test Years. The Utility further responded that while the proposed transfer will affect the Utility's ability to fund capital projects in the short term, it would not impact the longer term.

[40] The non-operating expenditures include the principal and interest charges associated with the existing debt with annual principal payments of $133,533, and interest payments decreasing from approximately $23,000 to $13,000 over the Test Years. The Applicant provided a breakdown of the existing debentures and retirement

dates associated with the debt charges in response to the IRs. Other annual projected non-operating expenditures include the projected new debt charges to fund the Utility's capital budgets, as discussed above, and earnings in the amount of $10,000 in 2016/17.

[41] The Applicant explained that the proposed earnings (or owner's return on rate base) are to be used to reduce the Utility's accumulated operating deficit, estimated to be $100,563 (Revised Rate Study) at the end of the 2013/14 fiscal year. Mr. Isenor noted that the earnings amount requested is based upon an operating deficit estimated with only six months of water sales to DND, and that the actual deficit will be less due to sales occurring over the entire year. He stated that, because of this, the Applicant could consider reducing the requested earnings; however, it will still be in a deficit position which needs to be lowered.

[42] The IR responses corrected an error in the calculation of return on rate base with respect to the unamortized amounts of capital contributions, which is reflected in the Revised Rate Study. The calculated return on rate base in each of the Test Years is 2.00%, 2.12% and 2.03%, respectively. Mr. Isenor explained the low percentage is indicative of the Utility's low debt load. He added that the Utility has benefitted from the gas tax rebate, which has been applied to reduce its funding of capital expenditures.

Findings

[43] The Board accepts the Sundry operating revenue as projected. The Board is generally concerned with the impact on the Utility's ability to fund capital projects when depreciation funds are transferred to other uses. However, it appears that without the proposed transfer, to be used towards the Utility's debt payments, the

rates will increase significantly in the first Test Year. The Board approves the transfer in the amounts proposed in 2014/15 and 2015/16.

[44] The Board further accepts the non-operating expenses including the debt charges relating to past debt and the projected new debt. With the increased sale of water to DND in 2013/14 than was estimated in the Rate Study, the Utility will still be in a deficit position at the beginning of the Test Years, albeit lower than anticipated. Given this and the relatively low requested return on rate base in the Rate Study, the Board accepts the earnings amount as requested, to be used to reduce the Utility's deficit.

IV ALLOCATION OF REVENUE REQUIREMENTS

1. Public Fire Protection

[45] The methodology used in the Rate Study to determine the public fire protection charge is consistent with the *Accounting Handbook* as well as the methodology used by the majority of other water utilities in Nova Scotia. The allocation of the utility plant in service to fire protection calculated ranges from 46.2% to 47.9% over the Test Years. This can be compared to approximately 42% in the previous application. Mr. Isenor explained that the increase is caused by the Utility's recent asset additions of reservoirs and distribution piping which are allocated at a higher percentage to fire protection.

[46] It was explained in response to the IRs that the tax expense was incorrectly allocated to the public fire protection charge at 10% as opposed to the higher percentage in the 47% range. This error was corrected in the Revised Rate Study.

[47] Mr. Isenor noted that the proposed public fire protection charge is impacted by the transfer from depreciation which lowers the cash requirements in the first two years. The Board commented that although the charge is proposed to increase significantly at the end of the Test Years, when there is no transfer, the increased customer base through the proposed distribution main extension could minimize the effect on residential customers. Mr. Quinn responded that the impact of the additional customers may be low, as the uptake on the new distribution lines will most likely be prolonged over a number of years.

Findings

[48] The Utility has used the methodology as set out in the *Accounting Handbook* to calculate the public fire protection charge, which the Board accepts. The Board accepts the transfer to depreciation to lower the fire protection charge, as presented in the Rate Study, noting that the transfer also lowers the rates for water service for the Utility customers.

[49] The correction to the tax expense allocation, as presented in the Revised Rate Study, results in increases to the pubic fire protection charges from those proposed in the Application. The revised charges are $179,416 in 2014/15, $223,421 in 2015/16, and $252,608 in 2016/17. The charges proposed in the Application were $172,155, $215,764 and $244,547, respectively over the Test Years.

2. Utility Customers

[50] The remaining revenue requirements, after the allocation for fire protection charges, are to be recovered from rates to the Utility's customers. The methodology

used to allocate the remainder of the expenses, to determine the base and consumption charges, is consistent with the *Accounting Handbook*, with the exception of the allocation of the transmission and distribution expense at 50% to base and 50% to commodity. The allocation recommended in the *Accounting Handbook* is 100% to commodity. The Applicant explained that the allocation proposed is consistent with the previous rate application and has been used in the past with several smaller utilities to maintain financial stability by ensuring that the base charge is sufficient to allow for any drop in water sales.

[51] The Application proposes to transfer amounts of $13,500 in 2014/15 and $5,000 in 2015/16 from the consumption charge revenue requirement to the base charge for rate smoothing purposes. It was indicated in response to the IRs that without the proposed transfer, the base charge would decrease by approximately 4% in the first Test Year, followed by increases of 12% and 6%, while the consumption charge would increase by approximately 18%, 10% and 5%, respectively in the Test Years

[52] The tax expense was misidentified and allocated 100% to the commodity charge in the Application, which was corrected in the Revised Rate Study to an allocation of 100% to the base charge in accordance with the *Accounting Handbook*. As this impacted both the base and commodity charges, the transfer from commodity to base revenue requirements was reduced to $3,000 in 2015/16 in the Revised Rate Study. In response to the Board's question as to the arbitrariness of the transfer amounts, as opposed to the option of fixing the base charge over the Test Years, Mr. Isenor explained that the transfer amounts were chosen so that the base rates would go up by approximately the same percentage each year.

[53] The Utility has experienced growth of approximately 21 customers over the past three years, which is the basis of the projected annual growth of seven customers over the Test Years.

[54] The Application states that the current annual water sales are approximately 31,110,000 gallons (excluding the sales to DND). Mr. Isenor noted that at the time of the last application, sales were approximately 30,967,000 gallons. He added that this Utility has not experienced the reduction in residential (ie., 5/8” meter) water consumption which has been evident in other utilities, and for that reason no reduction in water consumption is proposed over the Test Years.

Findings

[55] The Board accepts the allocations of the expenses to base and consumption charges in the Revised Rate Study, including the transmission and distribution expense, which provides a balance between revenue stability and the promotion of conservation.

[56] The Board has considered the information filed with respect to the proposed transfers and finds the transfers, as proposed in the Revised Rate Study, to be reasonable.

[57] Based upon the information provided, the Utility does not appear to be experiencing the recent trend among many water utilities of decreasing consumption. The Board accepts the projected consumption volumes and the number of customers, as set out in the Application.

[58] The Board accepts the base and consumption rates as calculated in the Revised Rate Study.

V SCHEDULE OF RULES AND REGULATIONS

[59] The Application proposed changes to the Schedule of Rules and Regulations, namely: changing the interest rate on deposits to 2% from the rate that the Municipality received on cash surplus balances in Regulation 3 'Deposits'; and adding Regulation 5 'Billing'. The Applicant explained the proposed change to Regulation 3 'Deposits' is for ease of reference. Mr. Isenor noted that Regulation 5 'Billing' has been added to water utility regulations in recent years to give clarity to staff and customers with respect to the issue of partial billing.

[60] The response to the IRs noted that there was an error in the definition of "Metered Rate Service" which should read:

> **Metered Rate Service**" means that type of service charged for at metered rates. Metered rate service is required for all new services.
>
> [Exhibit G-4, IR-37]

[61] The Utility indicated that it currently has an active program that complies with NSE Regulations to determine and mitigate the potential associated risks with respect to Regulation 20 'Cross Connection Control & Backflow Prevention'.

Findings

[62] The Board approves the Utility's Schedule of Rules and Regulations as proposed in the Application, with the correction to the definition of "Metered Rate Service" filed in response to the IRs.

VI CONCLUSION

[63] The Utility's Revised Rate Study filed in response to the IRs corrected a number of errors which results in increasing the base charges and decreasing the

consumption charges from those proposed in the Application. The average residential customers' rates are approximately $3.20 to $3.50 less per quarter in the Revised Rate Study than in the original Application. As noted above, the revised public fire protection charge is more in the Test Years than originally proposed.

[64] The Board received one letter of comment from a customer of the Utility who had concerns with the level of rate increases. The Board understands that the increases are significant, but the Utility must recover its costs to operate and provide a water service which meets NSE Regulations.

[65] Based upon the information provided, the Board approves the Schedule of Rates for Water and Water Services, as set out in the Revised Rate Study effective July 1, 2014, April 1, 2015 and April 1, 2016. The approved public fire protection charge is prorated at three months at the current rate and nine months at the new rate.

[66] The Board approves the Schedule of Rules and Regulations, as proposed, with the revision noted above, with an effective date of July 1, 2014.

[67] An Order will issue accordingly.

DATED at Halifax, Nova Scotia, this 26th day of May, 2014.

Murray E. Doehler