

MANITOBA ) Order No. 110/11  
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THE PUBLIC UTILITIES BOARD ACT ) August 24, 2011

BEFORE: Graham Lane, CA, Chairman  
Monica Girouard, CGA, Member  
Susan Proven, P.H.Ec., Member

CITY OF PORTAGE LA PRAIRIE  
WATER AND SEWER RATES

## **Summary**

By this Order, the Public Utilities Board (Board) provides rationale, recommendations and comments related to Orders 172/09 and 136/10, the latter which revised water and sewer rates for the City of Portage la Prairie (City).

The Board recommends that the City:

- Continue its practice of sharing important information on a timely basis concerning the City's water and sewer utility with its customers;
- Continue holding open public meetings as the City's major capital expenditure plans develop; and
- Continue discussions related to contractual arrangements with the City's industrial customers.

## **Background**

The Board issued Order 172/09 (on December 22, 2009) establishing revised water and sewer rates for the City, effective January 1, 2010, following a public hearing held in the City on December 1, 2009.

The revised rates were approved on an interim basis to allow for a submission by McCain and the receipt of other information with respect to the Province of Manitoba's intentions for mandating nutrient removal by the City (including the potential for significant senior government grants).

McCain was to file (not later than May 31, 2010) such additional information as it deemed germane to the interim rates and the City's proposal for a) finalization of the interim rates and b) further increases in rates to occur in the future.

Order 172/09 can be viewed on the Board's website ([www.pub.gov.mb.ca](http://www.pub.gov.mb.ca)) and includes details of the City's application for water and sewer rates for 2010, 2011 and 2012. Readers are encouraged to review this order to gain a fuller understanding of the City's original proposal.

**Revised Application as Approved**

On May 12, 2010, the City filed a revised application proposing lower sewer rates for 2011 and 2012 than those previously proposed in 2009. Water rates and other charges were not to change.

Below summarizes the 2009 and 2010 finalized rates and revised rates for 2011 and 2012:

\$/1,000 gallons	2009	2010	2011		2012	
			Initial	Revised	Initial	Revised
<b>Water</b>						
Domestic (0-50,000 gallons)	\$ 4.53	\$ 4.58	\$4.63	\$4.63	\$4.68	\$4.68
Intermediate (50,000 - 500,000)	\$ 3.66	\$ 3.70	\$3.74	\$3.74	\$3.78	\$3.78
Wholesale (500, 000-4,000,000)	\$ 3.14	\$ 3.23	\$3.33	\$3.33	\$3.43	\$3.43
Variable (4,000,001+)	\$ 1.29	\$ 1.33	\$1.37	\$1.37	\$1.41	\$1.41
<b>Sewer</b>						
Domestic/Intermediate (0-500,000)	\$ 5.82	\$ 6.40	\$7.04	<b>\$6.72</b>	\$7.74	<b>\$7.06</b>
Wholesale/Variable (500,000+)	\$ 3.30	\$ 3.83	\$4.44	<b>\$4.17</b>	\$5.15	<b>\$4.55</b>
Quarterly Service Charge	\$15.59	\$15.90	\$16.22		\$16.54	
Bulk	\$ 6.77	\$ 6.84	\$6.91	\$6.91	\$6.98	\$6.98

The City's most significant water and sewer capital project in the near future would remove nutrients from wastewater effluent. In its 2009 proposal, the City estimated the construction costs for its nutrient removal project at \$51 Million, with the project to take place over a five year period beginning with engineering and design work in 2011/2012 and construction from 2012 to 2014.

In May 2010, the City received another engineering study (conducted by AECOM), and it projected significantly lower costs, of \$25 Million, for the nutrient removal capital expenditure. The City's share of the projected cost was estimated at \$8.3 Million, with \$5.5 Million to be drawn from the City's Utility reserves and the other \$2.8 Million through the issuance of debentures. Senior government grants were anticipated for 2/3 of the reduced projected cost of the project.

The significant change in the estimated cost required of the City for the nutrient removal project caused the City to revisit the utility rates it had proposed for 2011 and 2012.

In its 2009 application, the City proposed that sewer rates increase by 9% (Step 1, Domestic) and by 13% (Step 2, Wholesale and Variable) in each of the years 2010, 2011 and 2012. With the reduced revised capital cost for the nutrient removal project, and with only 1/3 of the project expected to be required of the City, the City proposed lower rate increases -- sewer rates for capital purposes would only increase by 4% (Domestic) and 6% (Wholesale and Variable) in 2011 and 2012.

The City did not seek revision to the interim rates set for 2010.

With the revised proposal, by the end of 2012, the annual transfer to the Nutrient Removal reserve - to be "built" to meet the draw expected from it for the project - would be \$1,365,314, with the balance in the account to reach \$3.18 Million. As well, the City then revised its projected balance for its General Utility Reserve to \$6.78 Million.

The City noted that once the project was completed, the revenue from the rate increases that would provide for the annual transfers to reserves ahead of the construction of the nutrient removal addition would then be used to offset anticipated increased annual operating costs.

The City's ten year Capital Plan includes projected additional rate increases beyond 2012 of, in the mid-term, totalling 10% to implement nutrient removal, restore its reserve fund and meet increased operating expenses related to the new nutrient removal process (estimated at \$2 Million, annually).

The proposed additional increases (now projected for 2013 and 2014) will be reviewed in a later study and process.

The City's rate changes raise the larger volume customer rates at a higher percentage than for lower volume customer rates. By 2012, the total variable rate will be 51% of the total domestic rate, a significant increase from of the previous 44% level.

The City suggested that the revision of rate increases once expected for 2011 and 2012 would be easier for large industry to accept -- large industry contributes 50% of annual Utility revenues.

Economic challenges for industry and other customers caused the City to seek ways and means to restrain rate increases.

**AECOM Report - Phosphorus Removal Upgrading (May 2010)**

AECOM's final report on phosphorus removal outlined a number of alternate scenarios and provided the following summary of the firm's conclusions:

1. It is reasonable to implement phosphorus (P) and nitrogen (N) removal in a staged approach;
2. McCain's decision as to whether it will construct a new LRAR is critical to the development of the City's preferred option;
3. The capital cost of chemical P removal alternatives is about 30% lower than biological P removal alternatives; however, the net present value (incorporating operating costs) is only about 10 to 15% lower for chemical P removal alternatives;
4. Capital costs for the City Utility could be reduced based on cost sharing with industry -- cost sharing arrangements were not taken into account in the study;

5. Due to the unique characteristics of wastewater in Portage la Prairie, biological P removal alternatives have greater uncertainty with respect to reliable operation, and this requires further verification as N removal may be required for effective biological P removal;
6. The current capacity of the Sequencing Batch Reactor (SBR) is adequate for all alternatives (both P and N removal), based on the reduced load scenario and pre-treatment of Nutri-Pea wastewater;
7. Biosolids programs will be impacted by additional sludge volumes - however, the additional quantities and characteristics will not have a significant impact on the City's long term program subject to farmers accepting biosolids after nutrient removal;
8. The addition of N removal increases the capital cost of nutrient removal by \$2.5 to \$6.5 Million, and projected annual operating costs would increase significantly (by \$2.0 Million);
9. Pre-design work is required to complete testing and confirmation of cost estimates;
10. There is little difference in the land application requirements for bio-P sludge versus chemical P sludge; and

11. Additional investigations should be undertaken to verify the existing facility's operating characteristics, as well as to confirm the viability of the report's process recommendations.

The City is planning for both P and N removal, with estimated costs for preferred option (2c), as per the AECOM report as follows:

	(In Thousands)
Total P Removal	\$25,810
Total N Removal	4,330
Less Refurbished BVF*	- 4,450
Less Filters	- 3,330
	<u>\$22,360</u>
Contingency	<u>2,640</u>
	<u>\$25,000</u>

\*BVF - Bulk Volume Fermenter

#### **McCain's submission**

McCain received an extension from the Board to file its submission and McCain engaged XCG Environmental Engineers and Scientists (XCG) to review AECOM's report. McCain filed the expert report dated November 24, 2010 claiming that the AECOM report and conclusions contain a number of deficiencies, giving rise to serious concerns, which include:

- There remain significant technical questions and uncertainties (which make it impossible for McCain to finalize its own waste water infrastructure plans); and



- The costs projected by AECOM appear to be excessive or unnecessary, and the overall \$25 Million cost estimate, in addition to being uncertain, appears significantly inflated.

XCG indicated that there are two technical options in the AECOM report which may be considered to be the preferred options for the implementation of nutrient removal. Contrary to the \$25 Million estimate of AECOM report, XCG estimates the capital costs for nutrient removal upgrades to be in the range of \$13.1 Million to \$21.6 Million, depending on which of the two options is undertaken.

The XCG report identifies specific concerns with the AECOM report, including:

- AECOM includes costs for equipment and processes that are either not required for nutrient removal or are considered excessive; and
- Costs are included by AECOM for which information is unavailable to determine their validity (with respect to nutrient removal).

The XCG report suggests that the City's estimated annual operating costs for nutrient removal (\$2 Million) could be reduced by either \$590,000 or \$370,000, depending on the approach taken. McCain held that due to the lack of technical specificity and certainty in the AECOM report, the XCG estimates should be considered and that as additional information becomes available, the costs of the project may be further reduced.

McCain advised that after careful consideration of the AECOM report and the City's revised application, taking into account the remaining technical uncertainties, XCG concluded that the estimated capital cost that should be rate-cost shared by all users for nutrient removal, in respect of both of the two "preferred options" should be \$13,055,000, not \$25 Million.

In Order 172/09, the Board asked McCain to address the following items in its submission (the items are in *italics* and McCain's responses follow):

- *The effect the proposed increases may have with contractual rights between McCain and the City (with respect to the cost sharing and use of the waste treatment infrastructure).*

Any effect that the proposed rate increase may have on contracted rights between McCain and the City (with respect to cost sharing and use of the waste treatment infrastructure) remains uncertain. Although McCain has initiated discussions with the City, contractual questions remain outstanding.

- *An opportunity to meet with and a summary of discussions with the City with respect to proposed changes to the waste treatment infrastructure, and the implications such changes may have for the City's rate proposal as submitted to the Board.*

McCain has participated in a number of meetings and other communications with the City regarding these matters. The information which McCain has received from the City, including

the AECOM report and associated technical information, is discussed and analyzed in the XCG report.

- *A report with respect to McCain's consideration of a multi-million dollar capital expenditure to build additional waste treatment facilities, which may affect McCain's use of the City's water and sewer service and may lead to the possible discontinuance of certain existing waste treatment facilities which in turn may free up the City's existing system capacity.*

McCain is still not in a position to make any commitment towards making a multi-million dollar capital expenditure to build additional waste treatment facilities in the City. There remain too many unknowns and uncertainties, and McCain still lacks the definitive technical and other information required to provide the necessary foundation upon which to make such important decisions. Amongst other things, this will require further contractual discussions between McCain and the City relating to the pending expiry of certain contracts between the parties.

- *A report with respect to McCain's assertion that the "freeing up" of capacity may materially affect the overall cost of the City's proposed capital project and have direct relevance to the proposed rate increases sought by the City.*

Because McCain has not been able to finalize its consideration with respect to capital expenditures and infrastructure, it is

not in a position to comment on the question of 'freeing up' capacity.

- *Details of McCain's claim to provide highly relevant and important information and evidence regarding the proposed rate increases, and its assertion that it is in the public interest that the Board has this information and evidence to assist the Board in its decision.*

With respect to the provision of relevant and important information and evidence by McCain concerning the proposed rate increases, it is hoped that this submission and, in particular, the report from XCG will assist the Board in its deliberations.

#### **City's Response**

The City provided a response to McCain's submission (a letter dated December 2, 2010).

The City advised that it will continue to meet with and take into consideration input by high volume users, including McCain, as the City continues planning for nutrient removal. However, the City asserts that it is its decision to make with respect to the choice of design, and that decision will be made on the basis of what is most beneficial for the whole City. (The City holds that the AECOM report provides the most reasonable, least cost solution at this time.)

As for McCain's (XCG) contention that some items in the AECOM report are not necessary for nutrient removal, some related items have been included, this in the expectation of receiving

2/3 grant funding towards the overall cost of the project. Without the 2/3 funding, these projects would have to be funded entirely by the City, which would have to levy higher rates on the Utility's customers.

The City has reduced its originally proposed rates considerably, and acknowledges many variables remain that may influence the final cost of nutrient removal.

The City notes that 2011 and 2012 rates are not sufficient to generate revenue to fully fund the City's share of nutrient removal capital requirements. If the project ends up costing less than the \$25 Million cost estimate, then the additional funds will reduce the magnitude of further utility rate increases required past 2012.

The City also noted that water consumption by domestic users and industry is lower than anticipated, and that, if this continues, will result in less revenue for the Utility to offset operating costs and provide for reserve fund contributions.

### **Board Findings**

The Board is pleased with the exchange of information between the City and its customers. The Board acknowledges that the City is providing information to McCain, and McCain is responding through its own research which has assisted in its submission to the Board.

The Board is aware that the City's nutrient removal decisions will be based on the requirements set out and defined by the

Province of Manitoba. The Board agrees with the City that there are many technical process variables that remain outstanding and that the final design choice is the City's, although it should be made in the best interests of the City as a whole.

The Board is also aware that the options included in the AECOM report depend upon large industry, including McCain, constructing and upgrading its own facilities, this to reduce nutrient levels prior to its wastewater flowing into the City's wastewater treatment process.

The Board is not a technical expert and is thus averse to suggesting the best approach to adopt to achieve nutrient removal to meet provincial requirements. The Board does understand that whichever approach is chosen, it will be a significant expense to the City and its utility customers, including McCain.

The Board notes both parties agree that the estimated capital and operational costs may change, either higher or lower. The Board realizes the scope of the project will depend on a number of factors, including the availability of grants and contractual arrangements between the City and its industrial participants.

The Board agrees with the City that the presently revised rates are not sufficient to fully fund the City's projected share of the project, and if the project ends up costing less than the \$25 Million estimated, future rate increases may be reduced.

The Board strongly recommends that both parties, the City and industry, continue to work together to ensure the project moves forward, by:

- Continuing to share information, as and when it becomes available;
- Continue to hold open public meetings as plans progress; and
- Continue discussions of contractual arrangements between the City and all industrial users, including McCain.

Given the complexities of this project, the parties may wish to consider a "value engineering" review. Value engineering reviews involve the implementation of a number of proven procedures to ensure the objectives of the project are being met at the lowest cost. One of the advantages of the process is to review alternative design concepts, processes, technologies and management approaches that are expected to meet the project objectives that provide the greatest value to the client -- in this case, the City (and by extension, its customers and ratepayers).

Board decisions may be appealed in accordance with the provisions of Section 58 of *The Public Utilities Board Act*, or reviewed in accordance with section 36 of the Board's Rules of Practice and Procedure. The Board's Rules may be viewed on the Board's website at [www.pub.gov.mb.ca](http://www.pub.gov.mb.ca).

