M A N I T O B A	**)**	**Order No. 97/09**
	)	
THE PUBLIC UTILITIES BOARD ACT	**)**	**June 10, 2009**

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

RURAL MUNICIPALTIY OF HEADINGLEY
REVISED WATER AND SEWER RATES

1.0 Executive Summary

By this Order, the Public Utilities Board (Board) approves revised water and sewer rates for all bills issued after July 1, 2009, as proposed by the Rural Municipality of Headingley (RM).

The Board also approves, but on a conditional basis, "Phase 2" rates. Phase 2 rates are to be implemented following the Board's confirmation of its approval, which is to follow:

a) approval by the Municipal Board (MB) of the new borrowing (to fund in part a new wastewater plant); and

b) the expiration of three months following the issuance of the planned new debenture.

Existing, approved and conditionally-approved rates are:

	Existing (1999)	**Approved Phase 1**	**Approved Phase 2[(1)]**
Customer Service Charge	$ 8.75	$10.25	$10.25
Commodity Rates ($/cubic meter)			
Water	$ 1.42	$ 2.34	$ 2.06
Sewer (sewer & water customers)	$ 0.76	$ 0.78	$ 0.74[(4)]
Sewer (sewer only customers)	-	-	$ 0.90[(4)]
Additional Capital Rate ($/cubic meter)[(2)]			
Sewer & Water Customers	-	-	$ 1.30[(4)]
Sewer Only Customers	-	-	$ 1.58[(4)]
Bulk water ($/cubic meter)	$ 1.84	$ 2.56	$ 2.28
Minimum Quarterly Bill (5/8" meter)[(3)]	$39.27	$53.93	$67.65

Note: [(1)]Phase 2 to be effective beginning the first quarter following the issuance of the debenture.

[(2)]The Capital Rate is intended to repay over 20 years the estimated $6.0 million in borrowing plus interest required for a new wastewater treatment plant.

[(3)]Includes a quarterly allowance of 14 cubic meters and quarterly service charge; larger sized meters have larger quarterly allowances reflected in their minimum quarterly bills.

[(4)]The RM estimates 85% of the metered water for water and sewer customers enters the sewer system, with the remainder consumed for lawn watering, product input, etc., and therefore the sewer charge for sewer and water customers is to be lower than for the sewer only customer (Headingley Correctional Institute).

The Board finds the RM's proposal to recover its anticipated borrowing costs (principal and interest) of the new Wastewater Treatment Plant (WWTP) in rates acceptable.

Assuming the construction of the new wastewater plant proceeds, the Board will require the RM to submit a new rate study following one year's operating experience with the new WWTP, the study is to either confirm the adequacy of then-current rates or seek revised rates.

2.0 Background

The RM straddles the Assiniboine River and is adjacent to the City of Winnipeg. The RM has an increasing population (2,726 as of the 2006 census) concentrated mostly in the north and south "hamlets" of the RM, and in three major subdivisions along Roblin Boulevard.

A water and low pressure sewer system was installed in 1999 to service the main residential areas of the community, and it has been subsequently expanded to service the new residential subdivisions along Roblin Boulevard, a residential subdivision north of Portage Avenue, and increasing commercial development along Highway 1.

As of December 31, 2008, the system serviced 779 customers, 775 receiving water and sewer services, the other four customers being water only. Of these 779 customers, 717 were residential and 62 commercial. The water system also involves a truck-fill station that sells approximately 32,000 cubic meters of water annually.

Currently, the RM does not provide utility services beyond its boundaries, though, in its By-law, provision is made for the servicing of properties outside the boundaries of the RM, with the charge to be based on the rates charged to RM residents plus a surcharge (to reflect the capital costs of the RM's utility, fully met in the past through taxation not through utility rates).

The RM expects continued growth, which has averaged 43 housing starts in each of the last five years. In addition, and of considerable importance to not only the RM but also its utility, the Province of Manitoba is to construct a new Women's Correctional Centre (WCC) in the RM, planned to be operational in 2011. The new centre is expected to be a water and sewer customer, and to consume approximately 150 cubic meters of water daily.

The RM purchases its water, in treated form, from the Cartier Regional Water Co-op (Co-op), currently at a rate of $1.78 per cubic meter. The Board understands that there are no colour nor taste issues related to the water supply. The Manitoba Water Services Board (MWSB) manages the Co-op and is expected to continue to do so until the debenture debt of the Co-op has been repaid

Currently, the RM purchases sewage treatment services at the rate of $0.66 per cubic meter from the Province of Manitoba; the plant is located at the Headingley Correctional Institute (HCI).

Currently, the RM's utility operation directly employs two staff members (both with Level 1 Water Distribution and Sewage Collection certification). The RM advises that it will require other staff and upgraded certifications for its staff once the proposed new WWTP is constructed. Following its construction, the plant located at HCI will be closed and the RM will be the sewer service provider to HCI.

The RM is developing an emergency plan related to its utility, with the assistance of the Manitoba Water Services Board (MWSB); the plan is to be completed this year.

3.0 Application

On February 26, 2009, the RM applied to the Board for revised water and sewer rates. Those proposed rates were outlined in the RM's By-Law No. 3-2009, which received first reading on February 24, 2009.

As previously indicated, the RM proposed that the increase in rates take place in two phases. The Phase 1 rate increase would address rising utility operating costs; current rates have been in place since 1999 – a ten-year period marked by general inflationary cost increases and substantial upgrades to provincial water and sewer standards.

Phase 2 rates were proposed to reflect the anticipated capital and operating costs related to a proposed new WWTP, one that would remove nutrients and also serve a new correctional facility.

The RM submitted an application to the Municipal Board, dated February 26, 2009, seeking approval of RM By-law No. 2-2009 (read the first time on January 13, 2009), which authorizes the borrowing of $6.0 million for the construction of the new WWTP. Phase 2 rates assume that the application is approved and that borrowing and construction proceeds.

On May 4, 2009, the Board held a public hearing at the Headingley Community Centre to review the RM's rate proposal. The RM was represented by its Reeve, the Chief Administration Officer and engineering consultant Dillon Consulting.

In advance of the meeting, notice was mailed to each customer of the utility, and posted in several prominent locations in the RM. The notice was also sent to MWSB, a proposed co-funder of the planned new WWTP, and Manitoba Infrastructure and Transportation, which represents the interests of the proposed WCC, expected to be a customer of the utility.

Eleven persons attended the pubic hearing and two presentations were made, one on behalf of the Chamber of Commerce.

As of the date of the issuance of this Order, approval by the MB was still outstanding; the Board understands that the MB's decision on the RM's application is pending, awaiting the MB's consideration of ratepayer responses to the RM's Financial Plan, which, the Board understands, was

presented to the public by the RM on the evening of May 4, 2009, following the Board hearing on rates.

In support of the RM's application to the Board on rates, the RM filed its rate study, two reports from Dillon Consulting, 2007 (audited) and 2008 (unaudited) financial statements, Environment Act Licence 2869 (that with respect to the proposed new WWTP), and its response to several information requests of the Board and two ratepayers. All of these documents were entered into the public record as Exhibits at the public hearing.

3.1 Application Details

As noted earlier, the RM applied to the Board for approval of revised rates in two phases:

- Phase 1 to address increased and projected increasing operating costs; and
- Phase 2 to meet anticipated future capital and interest costs for the proposed new WWTP and associated new operating costs.

Existing and proposed rates are as follows:

	Existing (1999)	Phase 1[(1)]	Phase 2[(1)]
Customer Service Charge	$ 8.75	$10.25	$10.25
Commodity Rates ($/cubic meter)			
Water	$ 1.42	$ 2.34	$ 2.06
Sewer (sewer & water customers)	$ 0.76	$ 0.78	$ 0.74[(4)]
Sewer (sewer only customers)	-	-	$ 0.90[(4)]
Additional Capital Rate ($/cubic meter)[(2)]			
Sewer & Water Customers	-	-	$ 1.30[(4)]
Sewer Only Customers	-	-	$ 1.58[(4)]
Bulk water ($/cubic meter)	$ 1.84	$ 2.56	$ 2.28
Minimum Quarterly Bill (5/8" meter)[(3)]	$39.27	$53.93	$67.65

Note: [(1)]Phase 1 and 2 would be effective on dates to be established by the Board.

[(2)]The Capital Rate is proposed to repay over time the estimated $6.0 million in borrowing required for the proposed new wastewater treatment plant, plus associated interest. The total cost of the new plant is estimated at $14.0 million, with the balance of the funding forecast to be provided by the MWSB ($7.0 million) and the RM's Utility Reserve Fund ($1.0 million). The $6.0 million of anticipated borrowing would be repaid over 20 years; with the annual repayment, including principal and interest, estimated at $566,000, based on an estimated 7% annual interest rate. The RM has also applied to the MB for approval of the related RM General Borrowing By-Law, No. 2-2009.

[(3)]Includes a quarterly allowance of 14 cubic meters and quarterly service charge; larger-sized meters have larger quarterly allowances reflected in their minimum quarterly bills.

[(4)]The RM estimates 85% of metered water for its water and sewer customers enters the sewer system, therefore the sewer charge was proposed to be lower for those customers than for the sewer only customer (Headingley Correctional Institute).

The RM noted that utility operating costs have increased steadily since 1999, and that existing rates are only "just" meeting current operating costs.

In 2007 the RM reported a $38,319 utility surplus, which declined in 2008 to $1,203 – these surpluses result from annual operating costs of approximately $1.0 million.

The RM's variance analysis for 2008 indicated that the utility will record a $92,447 revenue shortfall from budget in 2008, offset by a corresponding under-expenditure of $93,050. The RM advised that while it had intended to add $30,000 to the utility reserve fund in 2008, existing rates and the forecast results are not expected to allow for that transfer.

Of total 2008 water-related expenses, $405,573 (91% of water utility expenses) were reported to be related to water purchases. The RM noted that water purchase costs are beyond the control of the RM, as the treated water is purchased from the Cartier Regional Water Co-op.

Of total 2008 sewer related expenditures, $117,241 (97% of sewer utility expenses) were related to sewage treatment and disposal – a service provided to the RM by HCI, with the cost set by HCI and beyond the RM's control.

The RM's advised that there is no capacity at existing rates to absorb any further cost increases or to set money aside for future and/or unexpected capital or maintenance projects.

The RM indicated that if Phase 1 rates were approved, it would provide sufficient annual revenue only to meet the expected operating expenditures for the next year.

The following annualized expenses were forecast and employed to develop the revenue requirements for the utility for both the Phase 1 and Phase 2 rate proposals:

	Phase 1	**Phase 2**
Administration	$ 32,000	$ 32,000
Water	$ 480,500	$ 590,500
Sewer	$ 128,000	$ 290,000[3]
Debenture (existing)[1]	$ 366,318	$ 366,318
Debenture (new)[2]		$ 566,000
Sub-Total	$1,013,818	$1,851,818
Transfer to Reserves	$ 152,000	$ 88,000
Total	$1,165,818	$1,939,818

Notes: [1]recovered by taxes.
[2]proposed to be recovered by sewer rates; and
[3]projected initial annual costs of operating the proposed new WWTP, to increase to $330,000 after the plant is fully operational.

Based on its rate proposal, the RM expected that the utility would generate annual surpluses of $6,980 and $6,576, upon the implementation of, first, Phase 1, and then, Phase 2 rates.

Phase 1 and Phase 2 results are expected “annualized” results, as Phase 1 rates were proposed to take effect in mid-2009, and Phase 2 rates would follow (by three months) the issuance of a new debenture for the construction of the new WWTP.

In addition to the provision for “reserves” noted in the above table, the RM’s rate calculations reflected annual operating contingencies for the water system ($120,000 and

$59,000, for Phase 1 and 2 respectively) and for the sewer system (contingencies of $32,000 and $29,000 respectively).

The RM advised that it had adjusted its proposed contingency provisions to reduce the billing impact on customers related to the commissioning of the new WWTP. The RM advised that, in the case that the contingency provisions are not fully required to meet costs, the savings would be transferred to the utility's Reserve Fund.

The provisions for contingencies relate to operational expenditures, and are not project cost contingencies for the new WWTP. Any unused project contingencies will reduce the amount of the planned debenture, and consequently will affect annual debt-servicing costs.

In Phase 2, the RM's proposal has the water rate per cubic meter falling from $2.34 to $2.06; this is partly the result of a planned decrease in the annual contingency allowance provision, and partly related to an expected increase in metered water sales (from 241,000 to 296,200 cubic meters annually), from the expected new women's correctional centre (WCC).

While Phase 1 rates were proposed to take effect July 1, 2009, Phase 2 rates were proposed to take effect three months after the issuance of the expected debenture for the construction of the new WWTP -- expected to be under construction in the fall of 2010. The issue date of the debentures is expected to follow (within three to five months) the construction completion date.

As previously indicated, the RM projected its annual borrowing costs related to the new WWTP to be in the range of $566,000 ($6.0 Million at 7%, to be repaid over 20 years). Annual debt servicing costs were expected to decline to $523,107, if a 6% interest rate is obtained; long-term interest rates for government borrowings have fallen sharply over the past year.

When the annual debt-servicing cost and the cost of operating the new WWTP is included in overall sewer utility operating expenses, estimated total annual sewer operating costs were projected to increase from $128,000 (Phase 1) to $856,000.

To recover the expected annual debt servicing costs, the RM proposed a new “Capital Rate”, proposed to be set at $1.58 per cubic meter for sewer-only customers (the HCI is expected to be the only sewer-only customer), and $1.30 per cubic meter for water and sewer customers (customers that receive both water and sewer service from the RM).

The RM justified the proposed lower rate for water and sewer customers on the basis that only 85% of metered water sales of the water and sewer customers enters the sewer system (the balance being used for lawn watering and other purposes that do not result in water entering the sewer system).

The RM’s Utility currently has $2,730,541 in outstanding debentures, with the annual servicing cost of these debentures being recovered by taxes, not rates.

As of the end of 2008, the RM reports an accumulated Utility surplus of $168,622 and a Utility Reserve Fund of $606,418.

The original cost of the Utility's fixed assets was reported to be approximately $10.0 million. With the construction of the new WWTP, the RM's utility fixed assets are expected to increase to the range of $25 million, with the replacement cost of those assets being much higher.

The RM is aware of revised Public Sector Accounting Board (PSAB) accounting standards, and that the new standards require the annual amortization of capital assets, a change that will increase the RM's annual utility operating costs.

The implications of the changing accounting standards were not reflected in the RM's rate proposal, ahead of the RM coming to a full understanding of the financial implications of adopting the new accounting standards.

The RM provided Schedule "A" to By-Law No. 2-1009, which reflects the expected schedule of annual payments that would be related to its proposed new $6.0 million debenture. As with any such payment schedule, the annual principal payment increases over time, while annual interest expense declines.

The RM's accounting for debenture servicing costs will also be affected by the revised accounting practices and, as an example, the first year's principal payment is projected at $146,357, with interest at $420,000.

Pursuant to the new accounting standards, the interest component is to be added as an annual expense (together with the annual amortization), unlike the past practice of recognizing the annual debt servicing costs, principal and interest, but not reflecting capital amortization costs.

Furthermore, in the early years of the new plant's operation, amortization expense (based on total capital costs net of grants) may exceed the principal payment on the debenture and, in the later years, be far less than the principal payment.

Also, the RM acknowledged the uncertainty that usually exists when large capital projects are undertaken, both with respect to capital and operating costs. However, in the event that the proposed rates are unable to raise sufficient funds to meet the new and higher operating costs of the utility, including the costs of the borrowing, the RM will require the Board's approval for the use of the Utility Reserve Funds, and/or may impose a tax levy on properties served by the Utility. The RM will also have available the option of seeking a Utility rate increase to cover all or a portion of any future annual revenue shortfall.

The Utility Reserve Fund gradually increased over the years through assessments on developers, and this is expected to continue. For each new residential sub-division, a per lot charge is assessed by the RM, to represent the developer's contribution to the existing capital cost of the utility.

And, if the lots are outside the Local Improvement District (LID), the RM charges $9500.00; if within the LID, the charge is $4500.00 per lot. In addition, a $3,000 connection charge is assessed in both instances.

In short, developers are responsible for infrastructure costs within their developments.

As noted in the Notice of Application and Public Hearing, By-law 3-2009 also included provisions related to sewer surcharges for extra strength sewage and for service beyond the RM's boundaries; information on billings and penalties; bulk water rates; and reconnection and fire hydrant charges. Hydrant charges of $100 per hydrant are collected from the General Operations of the RM; fire protection is a service provided to all residents in the RM.

During the hearing, the Board was advised by the RM of the characteristics of sewage entering the WWTP from HCI, and that it requires screening ahead of the treatment process. The Board enquired of the RM as to whether (since the RM provided only sewer service to HCI), HCI should be assessed a higher rate than that assessed on water and sewer customers, to address the extra treatment required for HCI sewage.

Because the RM uses a low-pressure collection system, sewage arriving from the general users of the system apparently contains high concentrations of hydrogen sulphide (H_2S), and this too requires special pre-treatment.

Subsequent to the hearing, the RM advised that the costs of pre-treatment of both sewage characteristics were similar, and, therefore, proposed no changes to their rate application.

The RM also advised the Board that the proposed borrowing of $6 million (to fund, in part, the construction of the new WWTP) will not be employed to meet water distribution capital costs related to fire protection required for the proposed WCC. Further, the RM advised that the cost of ultraviolet treatment at the Co-op water treatment facility is not expected to result in an increase in the wholesale water rate to the RM.

Unaccounted for water, received from the Co-op but not billed to Utility customers (i.e. water losses), were reported to be less than 3%, which is well below industry averages. This suggests that the system is in good condition, not surprising since it was constructed in 1999.

Pertaining to its decision to seek approval to reflect the cost of servicing the planned new debenture in rates rather than through taxation, the RM opined that recovery of the costs through utility rates would represent the fairest approach, as many customers are significant water users, and many of them have low-assessed property values.

Further, the RM noted that the Co-op’s wholesale water rate includes both operating and capital costs. Accordingly, in the RM’s view, embedding the costs of the new WWTP in rates will better reflect the user-pay principle employed by the

Co-op and required by statute with respect to general utility operating costs.

The RM advised that it does not own any equipment solely dedicated to the Utility, and that whenever work is required requiring Utility-dedicated equipment, the equipment is rented. Therefore, no allocation against the Utility by the RM's General Fund for equipment is required.

With respect to shared General Fund/Utility office and personnel costs, the RM indicated that direct utility costs are fully assigned to the utility and indirect costs are assigned based on time spent.

The RM advised that it is drawing on the Utility Reserve Fund to meet engineering and land acquisition costs related to the new WWTP project and, therefore, the reserve balance has fallen below the $1.0 million planned to be set aside for the new WWTP project. In short, the RM expects that $1 million will, in the end, be drawn down from the fund to meet capital related costs of the WWTP.

As the RM's present sewage collection system is a low-pressure system, it requires many customers to make arrangements (with haulers) to haul their sewage to the City of Winnipeg's treatment facility. There are currently three haulers servicing the RM residents.

While the RM does not currently offer hauling service, it reports having considered doing so.

The RM advises that if it does provide hauling services in the future, it expects minimal capital costs will be required.

4.0 Water and Wastewater Treatment Plant

The Board was advised that Dillon Consulting reviewed the existing conditions of the RM's water and wastewater system, and the ability of the system to meet the current and future needs of the RM. In the initial review, Dillon examined the infrastructure requirements of the RM, including those related to the anticipated new WCC. Dillon examined:

i) the water distribution system's capability to meet the requirements of the new WCC and the costs of adding UV treatment at the Co-op water treatment facility noted earlier, and

ii) wastewater treatment and collection systems.

Dillon was engaged by the Manitoba Water Services Board (WSB) and collaborated with the RM and representatives of the WCC. The following summarizes Dillon's observations:

4.1 Existing Plant Performance and Upgrading Option – Initial Dillon Study

The existing WWTP, owned by HCI, treats sewage collected from the RM's low-pressure septic system as well as from the HCI. Occasionally, wet weather flows to the plant are bypassed to the lagoon system, and the RM locates and removes infiltration. The existing plant employs two

continuous–inflow sequencing batch reactors (SBRs), followed by effluent flow equalization and ultraviolet disinfection.

The waste activated sludge is pumped from each SBR tank to the aerobic digester at the end of the SBR treatment cycle. Digested sludge is pumped to an existing two-cell sludge lagoon. As at July 2007, when the first Dillon report was produced, the annualized-average daily flow to the plant was 828 m^3/d. The RM system delivered 440 m^3/d of the total while the HCI delivered the remaining 388 m^3/d. The original design capacity of the plant is 1,350 m^3/d.

The existing treatment plant at HCI does not meet existing licensing requirements for effluent ammonia discharge loads. The delivered sewage is at a higher strength than was assumed in the original design, and the waste characteristics include filamentous bacterial growth. The filamentous bacteria produce a “fluffy” sludge, with a sludge volume index of 275 mL/mg, which settles poorly, creates a large sludge volume and reduces the active volume of the reactor tank.

The sewage received at the plant currently consists of an average concentration of 24.2 mg/L H_2S in the combined wastewater. Dillon estimated that greater than 96% of the H_2S load originates from the RM low- pressure septic system. The anaerobic conditions in this low-pressure system generate H_2S at concentrations as high as 82.9 mg/L and average 49.4 mg/L within the RM portion of the sewage flow. H_2S is not a typical constituent in domestic sewage, as most

municipal sewer systems do not become anaerobic prior to delivery to the WWTP.

A calibrated biological model of the existing SBR system showed that nitrifying bacteria are completely inhibited in the existing SBRs. This finding was further supported by *K. Sears et al (2004)* who found that H_2S levels as low as 0.5 mg/L can inhibit normal ammonia oxidation, i.e. nitrification in the activated sludge process by as much as 93% at neutral pH. Nitrification is completely inhibited at H_2S concentrations above 0.5 mg/L.

The average H_2S concentration at the plant (24.2 mg/L) is highly toxic to the nitrifying bacteria and is likely responsible for the lack of nitrification currently experienced at the plant.

According to Dillon Consulting, the consequences of the HCI plant conditions are:

- The Plant cannot nitrify and cannot meet present effluent quality requirements for ammonia;
- The SBRs are prone to solids washout; and,
- The hydraulic capacity of the plant is at capacity under current conditions.

Dillon reported the WWTP was not in compliance with the existing licence for effluent ammonia discharge load, and was deemed to be currently at capacity with additional loading from any source requiring plant expansion. To upgrade the existing plant, Dillon Consulting recommended

that upgrades be performed in 3 stages over a 10-year period. The total cost for all stages of a WWTP upgrade was estimated in 2008 to be $13.3 million.

Dillon examined three options to extend the low- pressure sewer system to the anticipated new WCC, and to increase system reliability. Dillon Consulting recommended the installation of an 8” diameter sewer main loop, at an estimated cost of $214,000. To meet the RM’s 20-year system requirements, Dillon also recommended the construction of a new 3200 – 12” diameter pipeline to serve the community north of the Assiniboine River, at an estimated cost of $545,000.

It was also determined that the water distribution system (WDS) network must be extended in order to service the WCC. Dillon Consulting suggested two options for extending the water network to the WCC:

- extend a single 10” pipeline to service the WCC and accommodate future business and industrial development in the area; or

- loop an 8” pipeline to service the WCC, accommodate future business and industrial development in the area, and provide redundancy in the system.

As it is standard practice for the RM to provide system reliability by looping distribution piping, Dillon Consulting recommended a 8” diameter water main loop to the WCC, at an estimated capital cost of $225,000.

Alternatively, the single 10” water main option could be employed at an estimated capital cost of $88,000.

Through modelling the existing WDS, Dillon Consulting/RM determined that the WCC will require “fire” flows in excess of what the existing pumping system can supply. To provide the necessary flow and pressure for the fire suppression demands at the WCC, a new fire pump at the RM pump station was recommended, as opposed to constructing reservoirs or installing multiple booster pumps throughout the network. It was determined that a new fire pump will be most cost effective and that the existing pipe network can deliver the necessary pressures and flows. The capital cost of installing a new fire pump at the RM pump station was estimated to be $135,000.

Further, new Provincial municipal water supply standards, enforced by Manitoba Water Stewardship (MWS), require UV disinfection at the Cartier Water Treatment Plant, which supplies water to the RM. MWS has allowed a 5-year grace period for the required installation. However, it was recommended that the UV upgrade be implemented now, to provide safe drinking water, by means of a multi-barrier approach, to Co-op serviced communities as early as possible. While it is not possible to predict the timing for the installation of the UV upgrade, the capital cost for the system was estimated to be $160,000.

4.2 Option Analysis - Subsequent Dillon Study

The RM advised that it had considered three options to meet its wastewater treatment requirements:

1. Expand the existing plant at the HCI; or
2. Construct a new plant to serve the RM and the HCI; or
3. Connect to the City of Winnipeg sewage system.

Option 3 was ruled out by the RM, which noted unacceptable cost implications associated with the City's requirements. The RM indicated that while the rate to be charged the RM's utility customers would be similar with the adoption of option 3, the City required the RM pay a $3.0 million connection fee, a $3,000/lot surcharge and accept City-set land use controls – all unacceptable terms for the RM.

Consequently, Dillon conducted an option analysis.

Dillon reported that the water and sewer service requirements for the new WCC facility were agreed to by the expected stakeholders, with the condition of the sewage to be received specified by the RM, as it is necessary that the WCC meet the requirements of the existing low-pressure system.

As was reported from Dillon's first study, Dillon assessed the current state of the existing infrastructure of the RM and evaluated the ability of the infrastructure to accommodate future demands, including that to arise from the WCC and increasing service loads expected from a 20-year projected population growth expectation.

Dillon then advanced infrastructure upgrade recommendations.

In estimating what the population growth factor for the RM should be for the next 20-year period, Dillon suggested that the RM “be conservative” to allow for some flexibility for future business development and an annual population growth of 5%.

In its report, Dillon suggested that the cost of Options 1 and 2 were similar, being $9.8 million for Option 1 and $10.2 million for Option 2. Its cost estimates did not include the comprehensive physical upgrades that may be required at the existing plant, nor did it include decommissioning costs for the HCI-owned plant.

Regardless of upgrading the HCI plant or building a new RM-owned plant, the RM planned to use the existing outfall to the Assiniboine River.

Based on Dillon’s analysis, the RM proceeded with pursuing Option 2, noting that HCI was no longer interested in operating a WWTP and, after the decommissioning of its plant, HCI would become a customer of the RM.

Option 2 provides the RM with operating control of the WWTP, and this was considered important from the perspective of enabling the RM to best meet the interests of its ratepayers into the future.

The RM indicated that, in addition to the costs estimated by Dillon, other costs would be incurred bringing the expected over cost to be:

Purchase of Land	$ 147,000
Site Development	$ 770,000
Decommission of existing plant	$ 170,000
Force main to new plant	$ 375,000
Contingency	$ 2,400,000 (25%)
Dillon's estimate	$10,200,000
Total:	**$14,062,000**

The overall cost of the new WWTP is to be financed by:

a) a contribution from the Utility Reserve Fund of $1.0 million,

b) $7.0 million from the Province of Manitoba through MWSB, and

c) a borrowing of $6.0 million, approval for which is currently before the MB.

The borrowing by-law authorizes the issuance of a debenture of $6.0 million, for a 20-year term at an interest rate of 7% (estimated annual payment of principal and interest, $566,000).

The plan for the new WWTP involves the continuation of sewage discharges into the Assiniboine River. Environmental Licence No. 2869 has been issued for the new plant, and it is to provide for nutrient reduction, which the existing HCI plant is unable to provide.

The Board noted that all of Dillon's construction estimates have an accuracy factor of ± 25%, and that it advised that

the new plant be constructed using a “Design Build” process. The RM reported that its tender process has started. In light of current economic conditions (a global recession involving the cancellation and/or deferral of capital plans, particularly in the private sector), Dillon expects that some costs will decline and that others will remain stable at study estimate levels.

The Board inquired as to the estimated useful life of the new plant, the RM responded that the plant is expected to meet the RM’s capacity requirements for a 20- year period. The Board asked “If the useful life of the plant ends up exceeding the expected 20-year term of the debenture, what will be the annual amortization for accounting report purposes?” The RM responded that projecting out 20 years is difficult, and that a reasonable amortization schedule will need to be developed.

The RM indicated that its estimate of a 7% interest rate on the debenture may prove “high”, and that in the current economic climate borrowing costs may prove to be lower, although there can be no certainty until the borrowing is secured.

The RM advised that it had the financial capacity to finance this project. The Municipal Board (MB) requires municipalities to restrict their borrowings to specific limits related to their assessment base and current borrowing levels.

5.0 Presenters

Ms. Valerie Chatain-White filed a number of pre-asked questions for the RM, to which the RM responded in advance of the hearing.

At the hearing, Ms. Chatain-White opined that the proposed rate increases were very large, and expressed concern about the impact on those with low and/or fixed incomes. She suggested that the increases be phased-in, and that a reassessment of the rate requirements take place in two years.

The Business Chamber of Commerce (Chamber) also filed pre-asked questions that were responded to by the RM in advance of the hearing.

At the hearing, the Chamber was represented by Ms. Jill Ruth, who indicated that while the Chamber was not opposed to the WWTP project and accepts the user-pay principle, it was concerned about the size of the initial and second phase increases, and suggested that consideration be given to a phase-in, to allow time for business to adjust to the new costs.

6.0 Board Findings

6.1 Water and Wastewater Treatment Plant

The RM’s application seeks approval for rates that initially would allow near-year operating costs to be met and, once the new WWTP plant is underway, would allow for

the operating and capital costs (including interest) of the plant to be recovered through rates.

Typically, the justification of large capital projects and related borrowing cost implications are matters reviewed by the Municipal Board, with municipal taxation generally being employed to recover capital costs.

Generally, though with notable exceptions (particularly in recent years), utility rates reflect only operating costs and deemed necessary reserve building for utilities.

In this case, particularly with the RM's testimony that the assessed value of the property of the users of its utility services do not properly reflect the cost of the service, the Board accepts that funding both operating costs and the costs associated with the planned new WWTP through utility rates is the appropriate approach.

The approach favoured by the RM in this instance is practical, and should allow the impact on residents (of both rising operational costs as well as the costs of a new wastewater plant) to be fairly distributed.

The operating requirements of the utility include:

- the ability of the utility to meet current customer demand;
- the utility's ability to meet the requirements of its environmental license;
- population growth projections;

- projected capital costs of a new RM-owned WWTP; and
- current and future utility operating costs.

The Board carefully considered whether the RM's decision to build and own a new WWTP is appropriate, and concluded that it is.

HCI does not want to remain the operator of a WWTP, and the upgrade of its plant is thus not feasible. The City of Winnipeg's proposal to the RM does not meet the reasonable expectations of the RM.

The increasing demand and limited availability of capital grants suggests seeking the achievement of economies of scale and, accordingly, the Board is of the view that all reasonable steps should be taken to maximize existing capacity whenever available. In so doing, the public interest is better served.

Accordingly, the Board is disappointed that an arrangement could not be made with the City of Winnipeg with respect to the use of the City owned wastewater treatment facility, as it appears that the City has the capacity to service the RM.

As a new WWTP is required to meet the needs of a growing population and new provincial environmental standards, and given no other option to the RM's building and owning a new facility, the Board agrees with the RM that it should build a new plant, to be owned by the RM.

The construction of a new WWTP at an estimated cost of $14 million (although 50% funded external to the RM), is a very significant project, one that will more than double the fixed assets of the RM's entire utility.

Furthermore, the new plant will increase annual operating costs for the utility, from approximately $1.2 million based on Phase 1 projections, to $1.9 million based on Phase 2 projections, including $566,000 for annual debt servicing and approximately $160,000 for start-up operating costs (the latter is expected to increase to $330,000 annually once the plant is fully operational).

The Board is satisfied that the RM has exercised due diligence and has allowed the participation of ratepayers in the decision process. No one at the hearing raised significant concerns with the RM's proposal.

The Board considers that the construction of the plant by the RM represents the least-cost option, particularly when taking into account the likely future needs of the utility and its customers. As well, the Board is particularly pleased to note that the new plant will provide for nutrient reduction to meet provincial standards.

The Board notes that the borrowing required to fund the RM's portion of the overall cost of the new plant requires the approval of the Municipal Board, and will thus make the implementation of Phase 2 rates conditional on the approval of the Municipal Board.

The Board notes that Dillon's cost estimates for the new plant involves a ±25% contingency, and that since the project was tendered there are indications of some softening of construction cost expectations due to the global recession. Perhaps the RM will experience a rare event, particularly considering the experiences of recent years, and have its new plant come in "on or below budget".

Further, the estimated borrowing rate of 7% (as noted by the RM) appears too high, with current conditions it may be that a lower rate can be secured from a lender. The Board encourages the RM to begin discussions with potential lenders and to consider a variety of possible lending sources.

In noting the risk/opportunity of construction cost variances, the Board is also pleased to note that the RM has planned for the occurrence of unexpected cost overruns. Such plans include use of reserve funds, taxes and/or applications to the Board for higher rates.

Further, the fact that the MWSB grant is fixed at 50% of project costs serves as some protection with respect to the risk of a cost over-run, at least with respect to 50% of such an occurrence.

There is the matter of changing accounting standards, and while the RM has not provided a best estimate of the financial implications of the upcoming required adoption of PSAB standards, which will require recognizing amortization and finance interest costs in rate schedule development,

the Board understands the complexity of adjusting to the PSAB requirements and will provide the RM the time to assess the implications carefully.

The RM's 2008 financial statements will have to be restated to the PSAB mandated basis, and its 2009 financial statements will have to be PSAB compliant. As the capital project will not be completed in 2009, any implications for rates from the new project will not appear until 2010 or 2011.

While the RM did not provide the proposed amortization rate for the new plant, it has noted that the new plant is designed to meet the utility's needs for 20 years. In the Board's view, it is possible that the new plant may have a useful life longer than 20 years, particularly given the opportunity for expansion. The Board notes that basic utility infrastructure, such as mainlines and treatment plants, are often expected to last fifty years.

The establishment of the appropriate amortization rate will be critical, not only for financial statement presentation, but also with respect to the RM's next rate application. The Board will require the RM to notify the Board of its assessment as to a proper amortization period for the new plant and any rate implications that may arise with the RM's selection.

As the cost of the new plant is to be 50% financed by a grant, the Board suggests that the grant be amortized for rate-setting purposes, an approach currently not allowed by PSAB. If the grant were to be amortized over the selected

amortization term, the net impact on costs for reflection in future rates would be lower.

There may also be a mismatch between amortization expense and the principal amount collected through rates as to the debenture repayment that will need to be addressed in a future rate application.

The Board also notes that the proposed additions to the water system, to meet the fire protection requirements of the new WCC, will represent additional capital costs of the utility, these too are to be amortized.

6.2 Revenue Requirements of the Utility

The Board is satisfied that revenue requirements of the utility for rate setting, as established by the RM, are appropriate at this time.

Rates have not changed since 1999 and, after factoring in general inflation and reviewing the current and future financial requirements of the utility, the Board is satisfied that the projected operating expenditures for the utility, as determined by the RM with the advice of its consultant. are reasonable.

As noted earlier, large projects represent significant financial risks to a utility and the ratepayers; the Board expects the RM will manage such risks carefully to ensure the revenue requirements will be met.

The Board accepts the RM's undertaking to review the adequacy of its rates following the commissioning of the new WWTP and some operating experience.

The revenue requirement includes a reasonable provision for rebuilding the reserve fund and contingencies related to the general operation of the utility. These provisions provide a cushion for unexpected expenditures and therefore, probable reasonable rate stability.

The Board is pleased that the RM requires developers to make capital contributions, and notes that the existing infrastructure has been or is being paid for by existing customers, in large part by taxes.

The Board is also satisfied that the RM is attempting to appropriately allocate shared service costs between the General Operations of the RM and the utility. Once the new plant is commissioned, the RM will have new staff to manage the new plant, and that will also represent direct charges against the Utility.

There was no discussion at the hearing as to what will happen to the Capital Rate when the debt is repaid. It is fair to say that this will need to be examined ahead of the maturity of the planned debenture; more than likely, new needs will then be apparent.

While the Board notes that the recovery of the borrowing costs in rates is a departure from the general practice, the Board accepts the position of the RM that its proposal

represents the fairest approach for this project and, therefore, will approve the recovery of the estimated borrowing costs in rates.

However, the Board notes that this may not always be the case, especially with respect to the provision of water; some users use small amounts of water yet require large water lines and larger water production facilities to meet their fire protection needs, and they would not pay their fair share if all capital costs were built into the rates.

The Board is concerned about the rate increases and the implications for those on low and/or fixed incomes. However, in this case the need for a proper WWTP is evident and with a sizeable grant to assist the RM and its ratepayers, there seems no practical way to cushion the "blow" for consumers.

To "phase in" the higher rates would build deficits, and those deficits would themselves attract interest and affect future rates, making future rate increases higher than would otherwise be required.

After considering the issues in totality, and more specifically the following issues, the Board finds further rate-smoothing would, at this time, not be appropriate:

1. Rates have remained unchanged since 1999 and the utility operations are just barely breaking even;

2. There are significant capital and operational risks being undertaken by the RM through the rate proposal;

3. The proposed rates included start-up costs only for the new WWTP, which is expected to rise to $330,000;

4. Additional capital expenditures are required in the near term with respect to the water system; and

5. The implications of adopting PSAB standards may be significant and have yet to be included in the utility's operating results.

Therefore, the Board will ask the RM to conduct a rate review following one full year's operating experience with the new WWTP and the attachment of the one new large water customer (the WCC), to determine whether the rates are adequate or otherwise. In this regard, the Board also noted that the operating costs of the new plant were going to rise after start-up.

Certainly, the distribution and the sewer collection systems are relatively new and in good shape, suggesting that, in good years, the operating contingencies may not be fully utilized, resulting in surplus. This too can be re-examined when the rate review is submitted.

The Board will approve Phase 2 rates conditionally upon the RM receiving approval from the MB for the borrowing.

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 (Rules). The Board's Rules may be viewed on the Board's website at www.pub.gov.mb.ca.

IT IS THEREFORE ORDERED THAT:

1. By-law No. 3-2009 of the Rural Municipality of Headingley BE AND IS HEREBY APPROVED as attached, with Phase 2 rate increases being conditional upon the Rural Municipality of Headingley obtaining the approval of the Municipal Board for the borrowing and the construction of the new Wastewater Treatment Plant proceeding.

2. The RM of Headingley shall file with the Public Utilities Board a certified copy of By-law No. 3-2009 after having received third and final reading.

3. The Rural Municipality of Headingley shall file with the Public Utilities Board a rate study with commentary on the adequacy of rates, following one full year of operating experience with the new Wastewater Treatment Plant.

Fees payable upon this Order - $1,500.00

THE PUBLIC UTILITIES BOARD

"GRAHAM LANE, CA"
Chairman

"GERRY BARRON, FCGA"
Acting Secretary

Certified a true copy of Order No. 97/09 issued by The Public Utilities Board

Acting Secretary

SCHEDULE "A"
TO BOARD ORDER NO. 97/09

RURAL MUNICIPALITY OF HEADINGLEY
WATER AND SEWER RATES
BY-LAW NO. 3-2009

1 Commodity rates

Phase 1 Rate

	Rate per Cubic Meter		
	Water	Sewer	Total
Sewer & Water Customers	2.34	0.78	3.12
Sewer Only Customers		0.00	0.00
Bulk Water Rate	2.56		2.56

Phase 2 Rate

	Rate per Cubic Meter		
	Water	Sewer	Total
Sewer & Water Customers	2.06	2.04	4.10
Sewer Only Customers		2.48	2.48
Bulk Water Rate	2.28		2.28

2 Minimum Charges, Quarterly

Notwithstanding the Commodity rates set forth in paragraph 1 hereof, all customers will pay the applicable minimum charges set out below, which will include water allowances indicated:

(a) Water and Sewer Customers

Phase 1 Rate						
Meter Size	Group Capacity Ratio	Water Included Cu Meter	Customer Service Charge	Commodity Charges		Total Quarterly Minimum
				Water	Sewer	
5/8”	1	14	$10.25	$32.76	$10.92	$53.93
¾”	2	28	$10.25	$65.52	$21.84	$97.61
1”	4	56	$10.25	$131.04	$43.68	$184.97
1 ½”	10	140	$10.25	$327.60	$109.20	$447.05
2”	25	350	$10.25	$819.00	$273.00	$1,102.25

Phase 2 Rate						
Meter Size	Group Capacity Ratio	Water Included Cu Meter	Customer Service Charge	Commodity Charges		Total Quarterly Minimum
				Water	Sewer	
5/8”	1	14	$10.25	$28.84	$28.56	$67.65
¾”	2	28	$10.25	$57.68	$57.12	$125.05
1”	4	56	$10.25	$115.36	$114.24	$239.85
1 ½”	10	140	$10.25	$288.40	$285.60	$584.25
2”	25	350	$10.25	$721.00	$714.00	$1,445.25

(b) Water Only Customers

Minimum charge will be the same for each meter size as shown, above, but the Sewer Commodity Charge will be excluded.

(c) Sewer Only Customers

Minimum charge will be the same for each meter size as shown, above, but the Water Commodity Charge will be excluded.

3 Sewer Surcharge

(a) There may be levied annually, in addition to the rates set forth above, a special surcharge on the sewage having a Biochemical Oxygen Demand in excess of 300 mg/L, to be set by Resolution of Council

(b) A special surcharge for substances requiring special treatment shall be charged based on the actual costs of treatment required for the particular sewage or industrial waste.

4 Service to Customers outside Municipality, Town, or L.I.D., limits

The Council of the Rural Municipality of Headingley may sign agreements with customers for the provision of water and sewer services to properties located outside the legal boundaries of the Rural Municipality of Headingley. Such agreements shall provide for payment of the appropriate rates set out in the schedule, as well as a surcharge, set by resolution of Council, which shall be equivalent to the frontage levy, general taxes and special taxes for utility purposes in effect at the time, or may be in effect from time to time, and which would be levied on the property concerned if it were within these boundaries. In addition, all costs of connecting to the utility's mains and installing and maintaining service connections will be paid by the customer.

5 Billings and Penalties

A late payment charge of 1¼% shall be charged on the dollar amount owing after the billing due date. The due date will be at least fourteen days after the mailing of the bills.

6 Disconnection

Disconnection of services shall be subject to the "Conditions Precedent Allowing for Collection and Disconnection of Water and/or Sewer Services for Non-Payment of Accounts" as set out in Public Utilities Board Order No. 127/08

7 Reconnection

Any service disconnected due to non-payment of account shall not be reconnected until all arrears, penalties and a reconnection fee of $100.00 have been paid.

8 Outstanding Bills

Pursuant to Section 252(2) of *The Municipal Act*, the amount of all outstanding charges for water and sewer service are a lien and charge upon the land serviced, and shall be collected in the same manner in which ordinary taxes upon the land are collectible, and with like remedies.

9 Hydrant Rentals

Rate the Rural Municipality General Operating Fund will pay to the utility for annual rental for each hydrant connected to the system.	$100

10 Water Allowance Due to Line Freezing

That in any case where, at the request of the Council, a customer allows water to run continuously for any period of time to prevent the water lines in the water system from freezing, the charge to that customer for the current quarter shall be the average of the billings for the last two previous quarters to the same customer, or to the same premises if the occupant has changed.