

TOWN OF BIG RIVER WATERWORKS RATE POLICY / CAPITAL INVESTMENT STRATEGY/FINANCIAL OVERVIEW

2021

13.2

Background:

In 2008 the Town of Big River acquired a new water treatment plant, extra reservoir, addition to the lagoon, a new force main to the lagoon and a gen set to provide for back up to both the water and sewer systems. In 2018, the Town of Big River received approval for a water upgrade project under the New Building Canada Fund's Provincial Territorial Infrastructure Component Small Communities Fund program. The Water Upgrade Project consisted of:

- an addition to the existing Water Treatment Plant for a pre-treatment filtration system and a reverse osmosis treatment unit, heating and ventilation, and related mechanical, controls, and electrical system. Reverse osmosis was the preferred water treatment system option in order to reduce ammonia concentrations and improve the overall treated water quality;
- raw water supply and upgrades included drilling and installation of two new water wells (one pumping well and one back up well), two new observations wells, raw water supply piping, hydrogeological research, rehabilitation of one existing well, four well pumps, gravel and fencing around the new wells, and decommissioning of the two existing wells;
- distribution system revisions included the construction of a pump house building, construction of approximately 450 meters of a new supply pipeline to the elevated reservoir pumps, mechanical and electrical, backup generator to maintain pressure on Waite Street in the case of a power outage; and
- replacement of two pumps, rail installation, and electrical to the sewer lift station to accommodate the increased amount of excess water of reverse osmosis.

In the summer of 2019, two new water wells were installed and the date of substantial completion of the water treatment plant and water treatment system was December 22, 2020.

Capital Investment Strategy:

The objective of the waterworks capital investment strategy is to address anticipated waterworks infrastructure maintenance, the immediate drinking water infrastructure problems and future infrastructure replacements in a timely fashion so as to ensure the municipal waterworks provides safe drinking water to residents and businesses. The strategy uses the 2005, 2010 and 2015 Waterworks System Assessments that were required by Saskatchewan Environment for infrastructure planning. This capital Investment strategy will:

Ensure that safe drinking water can be provided to the residents and businesses in the community in the present and future and all future waterworks capital projects will be prioritized based on what is needed to ensure safe drinking water; and ensure that waste water will be delivered appropriately in a timely manner.

The Town will continue to work towards improvement to the Distribution System and Sanitary Mains and work toward provision of funds to ensure future replacement costs for the utility are met.

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Immediate Issues & Risks & Future Considerations:

Risk: In 2015 the Town of Big River's Round 3 Waterworks System Assessment (WSA), it was recommended that an engineering study examine the optimum method of ammonia removal. The sodium hypochlorite usage continuously exceeded the Maximum Usage Limit (MUL) which interfered with the disinfection process, the utility consistently practiced breakpoint chlorination in order to satisfy the demand of the ammonia and provide a true free residual at the plant. To decrease the sodium hypochlorite dosage rate a further ammonia removal process needed to be considered.

Solution:

The Town of Big River worked toward providing an annual Sewer & Water surplus to add to the reserve to meet the future replacement needs of the Sewer & Water System, which was used for the Water Upgrade Project in 2018-2020. The pretreatment and reverse osmosis system, along with a new water supply, resolved the high ammonia issue.

Funding:

In 2018 The Town of Big River was approved under the the New Building Canada Fund, Small Communities Fund (SCF) for the Water Treatment and Distribution System Upgrade in the amount of \$3,300,000 which is 1/3 Federal, 1/3 Provincial and 1/3 Municipal funded.

The Council of the Town of Big River identified the need to upgrade the water system with the following:

1) New Water Well Supply: In 2019 two new wells and two new observation wells were drilled into the Hatfield Valley Aquifer, new 25 HP well pumps, piping and connections to maximize well capacity and to suit the reverse osmosis treatment unit. The well pumps are Variable Frequency Drive (VFD) controlled to vary the speed of the pumps.

2) Expansion to Existing Water Treatment Plant: A building expansion to the existing Water Treatment Plant houses a Reverse Osmosis (RO) Treatment Unit and Biological Filtration Pre-treatment System. New controls for the RO Unit were integrated with the existing plant controls and a SCADA computer for user interface. The system is to meet current potable water demand for the Town, with consideration for future demand from new developments for 20 years into the future.

3) Revisions to Water Distribution System: Revisions were completed to the distribution system at the upper elevations to ensure that residents at these elevations have adequate water pressure. Construction of a new supply pipeline to the elevated reservoir from a location in the distribution system where pressures are sufficient. Isolation from the upper distribution system piping from the lower distribution piping to create two separate pressure zones and provide pumping capacity from the elevated reservoir to supply the upper pressure zone. A small pump house with backup generator was constructed to feed the upper pressure zone. The new supply line to the reservoir allows the reservoir to continue to maintain pressures in the lower pressure zone.

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Contribution Agreement Project Completion Date Deadline for the Water Treatment and Distribution System Upgrade was March 31, 2021. The final item of the Water Upgrade Project was decommissioning Norrie's Well and the PW4-2004 was completed in 2021.

Waterworks System Assessment

The Town of Big River paid for an independent Water System Assessment (WSA) every five (5) years. In December, 2015 Pinter & Associates Ltd. prepared the Round 3 WSA. The legislation has now changed, and is being left up to the Town's Water Security Agency (WSA), Environmental Protection Officer (EPO)'s discretion. The EPO can request an assessment be done if there is a significant growth in a community and a study on the capacity is required or if a risk is identified, such as general age of the system, etc.

Position:

See attached Schedule A & B of *Town of Big River Bylaw 2018 – 05* for water & sewer rates.

2021 Waterworks Financial Overview:

Total 2021 waterworks revenues (R) \$ 469,437
(2021 Financial Statements Pg.22 Schedule 2-4)

Total 2021 waterworks expenditures (E) \$ 455,128
(2021 Financial Statements Pg.25 Schedule 3-3)
(Includes Amortization \$96,351)

Total 2021 debt payments on waterworks infrastructure loans (D) \$ nil.
(595-100-101) LTD Paid Trial Balance)

Comparison of waterworks revenue to expenditures plus debt,
Expressed as a ratio:

$$\frac{R}{(E+D)} = \frac{\$469,437}{\$455,128} = 1.03$$

So for 2021, waterworks revenues covered 103% of the waterworks expenditures.

TOWN OF BIG RIVER

Total Expenses by Function

As at December 31, 2021

Schedule 3 - 3

	Budget 2021	2021	2020
UTILITY SERVICES			
Wages and Benefits	\$ 99,390	\$ 124,208	\$ 128,419
Professional/Contractual Services	80,010	100,057	53,612
Utilities	39,650	46,910	46,981
Maintenance, Materials and Supplies	476,020	79,793	69,921
Grants and contributions			
- operating	-	-	-
- capital	-	-	-
Amortization	-	104,160	96,351
Interest	-	-	-
Allowance For Uncollectibles	-	-	-
Other	-	-	-
Utility Services	695,070	455,128	395,284
Restructuring	-	-	-
Total Utility Services	695,070	455,128	395,284
TOTAL EXPENSES BY FUNCTION	\$ 2,074,720	\$ 2,001,760	\$ 1,823,829

TOWN OF BIG RIVER

Schedule of Operating and Capital Revenue by Function

As at December 31, 2021

Schedule 2 - 4

	Budget 2021	2021	2020
UTILITY SERVICES			
Operating			
Other Segmented Revenue			
Fees and Charges	\$ -	\$ -	\$ -
- Water	202,500	225,158	215,584
- Sewer	216,350	236,778	233,085
- Other	-	-	-
Total Fees and Charges	418,850	461,936	448,669
- Tangible capital asset sales - gain (loss)	-	-	-
- Other	-	-	-
Total Other Segmented Revenue	418,850	461,936	448,669
Conditional Grants			
- Student Employment	-	-	-
- Other (Local government)	-	7,501	41,800
Total Conditional Grants	-	7,501	41,800
Total Operating	418,850	469,437	490,469
Capital			
Conditional Grants			
- Federal Gas Tax	-	-	-
- Clean Water and Wastewater Fund	-	-	-
- Provincial Disaster Assistance	-	-	-
- Other (BCF)	340,000	410,618	1,422,716
Total Capital	340,000	410,618	1,422,716
Restructuring Revenue	-	-	-
Total Utility Services	758,850	880,055	1,913,185
TOTAL OPERATING AND CAPITAL REVENUE BY FUNCTION	\$ 1,184,840	\$ 1,586,785	\$ 2,556,984

SUMMARY

Total Other Segmented Revenue	\$ 558,920	\$ 998,403	\$ 909,995
Total Conditional Grants	243,200	90,595	61,292
Total Capital Grants and Contributions	382,720	497,787	1,585,697
Restructuring Revenue	-	-	-
TOTAL OPERATING AND CAPITAL REVENUE BY FUNCTION	\$ 1,184,840	\$ 1,586,785	\$ 2,556,984

**TOWN OF BIG RIVER
BYLAW 2018 - 05**

A BYLAW OF THE TOWN OF BIG RIVER TO FIX THE RATES TO BE CHARGED FOR THE USE AND CONSUMPTION OF WATER AND TO FIX THE RATES TO BE CHARGED BY WAY OF RENT OR SERVICE CHARGE FOR THE USE OF THE SEWER

The Council of the Town of Big River, in the Province of Saskatchewan, enacts as follows:

1. All persons desiring to be supplied with water from the Municipality's water supply system shall make application to the officials of the Municipality. Each application shall be accompanied by the payment of a fee or meter deposit in the sum of \$150.00 and a service connection fee of \$30.00 during regular office hours, or of \$45.00 for after regular office hours.
2. The Municipality may, by Bylaw, ration or limit the amount of water furnished to any and/or all consumers should circumstances deem to warrant such action.
3. If the water supply is shut off from the premises of a user for infringement of the provisions of this Bylaw, same shall not be turned on until all penalties, fees, rates, charges, and arrears, if any, have been paid.
4. Water meters shall be read every three months.
5. The charges to be paid by the water consumer whose water service has been turned on and for persons who own the premises drained, or that are by Bylaw to be drained, into the sewer shall be those set out in Schedule "A" attached, or as amended from time to time.
6. Persons who own or occupy premises drained, or that are by Bylaw required to be drained, into the sewer shall pay for such services a rental rate or service charge in accordance with Schedule "B" attached, or as amended from time to time.
7. Accounts for water service and/or sewer service shall cover a period of three successive months, and shall be rendered on or before the first day of the month next following such period. Accounts shall be paid within a period of thirty days from the date on which such accounts are rendered. If an account is not paid within the said period of thirty days, the water service may be cut off.
8. Bylaw 2009 - 01 is hereby repealed.

This bylaw shall come into force and take effect on the day of approval being issued by the Local Government Committee.




Mayor


Administrator

Read a third time and adopted this
15th day of October, 2018

Certified A True Copy
of Bylaw # 2018-05


Town Administrator



SCHEDULE "A"

Water Rates to be charged for metered water supplied by the Town of Big River shall be as follows:

- a) For an amount not in excess of 2,000 imperial gallons per month or fraction thereof that shall be consumed, a minimum charge of \$85.86 per 3 months shall be payable as a service charge for each water connection whether any water is actually consumed or not through the said meter connection, provided that, if a water connection is turned off by the servants of the Town at the request of the water user of such connection, no service charge shall be payable by such water user during the period within which the said water connection has been turned off.
- b) At the rate of \$8.87 for each 1,000 imperial gallons of water consumed per month in excess of the 2,000 imperial gallons allowed above, up to a total of 32,000 imperial gallons.
- c) An Infrastructure Fee of \$10.00 per month will be charged to each parcel of land that receives a utility bill, which will offset expenditures to the water and sewer infrastructure within the Town of Big River.

SCHEDULE "B"

Persons who own or occupy premises drained or required to be drained into the sewer shall pay for such service a monthly rent or service charge in accordance with the following:

- a) A flat rate of \$59.20 per 3 months plus a charge equal to 25% of the amount charged for water consumption at that location. This rate applies to all services with the exception of those listed below.
- b) At locations which are not serviced by water a flat rate of \$19.73 per month shall apply.

SCHEDULE "C"

The Council of the Town of Big River must be satisfied that special circumstances make it appropriate to have two separate parcels of land amalgamated to be combined into one taxable parcel. In the event that Council approves amalgamation of parcels of land for a valid reason:

- a) The property owner is responsible to have the water service discontinued and capped off at the main at the parcel that will not be serviced with water.
- b) The property owner is responsible for the costs associated with the service being discontinued.
- c) If a request to amalgamate parcels of land is approved by Council, a \$2000.00 refundable deposit is to be paid to the Town of Big River from the property and once the water service to the parcel of land which will no longer be serviced with water is capped off at the main, the deposit will be refunded.



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October 25, 2018

Local Government Committee

Ms. Noreen Olsen
Administrator
Town of Big River
606 1st Street
BIG RIVER SK S0J 0E0

Dear Ms. Olsen:

Enclosed for your records is approval of water and sewer rates pursuant to subsection 23(3) of *The Municipalities Act*.

Yours truly,

A handwritten signature in blue ink, appearing to read "P. Matviichuk", with a long horizontal flourish extending to the right.

Roman Matviichuk, BF, MPA
Financial Analyst

Enclosure

18-350 Eberl

TOWN OF BIG RIVER – WATER AND SEWER RATES

*That the Committee approve the water and sewer rates, excluding the management fees, as outlined in the **Town of Big River's Bylaw No. 2018-05** in accordance with subsection 23(3) of *The Municipalities Act*.*

CARRIED

