

Drinking Water Quality and Compliance Annual Notice to Consumers 2020

Introduction

Saskatchewan Environment (SE) required that at least once each year waterworks owners provide notification to consumers of the quality of water produced and supplied as well as information on the performance of the waterworks in submitting samples as required by a Ministers' Order or Permit to Operate a waterworks. The following is a summary of the Village of Leask water quality and sample submission compliance record for the January 1, 2020 -December 31, 2020 time period. This report was completed on December 15, 2021. Readers should refer to Water Security Agency "Municipal Drinking Water Quality Monitoring Guidelines, October 2012, EPB 202" for more information on minimum sample submission requirements and the meaning of type of sample. Permit requirements for a specific waterworks may require more sampling than outlined in the department's monitoring guidelines. If consumers need more information on the nature and significance of specific water tests, for example, "what is the significance of Selenium in a water supply", more detailed information for <http://www.hc-sc.gc.ca/hecs-sesc/water/dwgsup.htm>.

Water Quality Standards

Bacteriological Quality

Parameter/Location	Limit	Regular Samples Required	Regular Samples Submitted	#of Positive Regular Submitted(%)
Total Coliform and Background Bacteria	0 Organisms/100ml Less than 200/200ml	26	25	Nil

Water Disinfection

Chlorine Residual in Distribution System for Test Results Submitted with Bacteriological Samples

Parameter	Minimum Limit	Total Chlorine Residual Range	Free Chlorine Residual Range	#Tests Required	#Tests Submitted	#Adequate Chlorine (%)
Chlorine Residual	0.1mg/L free OR 0.5mg/L total	0.13-0.63	.22-.73	26	25	100

Water Disinfection – Free Chlorine Residual for Water Entering Distribution System from Waterworks Records From Water Treatment Plant Records

Parameter	Limit(mg/L)	Test Level Range	#Tests Performed	#Tests Not Meeting Requirements
Free Chlorine Residual	at least 0.1	.12-1.16	365	0

A minimum of .01 milligrams per litre (mg/L) free chlorine residual is required for water entering the distribution system. Tests are normally performed on a daily basis by the waterworks operator and are to be recorded in operation records. This data includes the number of free chlorine residual tests performed, the overall range of free chlorine residual (highest and lowest recorded values) and the number of tests and percentages of results not meeting the minimum requirement of 0.1 mg/L free chlorine residual.

Turbidity – From Water Treatment Plant Records

Parameter	Limit (NTU)	Test Level Range	#Test Not Meeting Requirements	Maximum Turbidity(NTU)	#Tests Required	#Tests Performed
Turbidity	0.5	0.06-0.20	0	.2	365	365

Chemical - Health Category

All waterworks serving less than 5000 persons are required to submit water samples for SE's Chemical Health category once every 2 years. The Chemical Health category includes analysis for arsenic, barium, boron, cadmium, chromium, fluoride, lead, nitrate, selenium and uranium.

General Chemical

All waterworks serving less than 5000 persons are required to submit water samples for SE's General Chemical category once every two years if a ground water source and once per three months every second year if a surface water or blended surface/groundwater source. The General Chemical category includes analysis for alkalinity, bicarbonate, calcium, carbonate, chloride, conductivity, hardness (as CaCO₃), magnesium, sodium, sulfate and total dissolved solids. A copy of the report is available for viewing in office.

*Objectives apply to certain characteristics of or substances found in water for human consumptive or hygienic use. The presence of these substances will affect the acceptance of water by consumers and/or interfere with the practice of supplying good quality water. Compliance with drinking water aesthetic objectives is not mandatory as these objectives are in the range where they do not constitute a health hazard. The aesthetic objectives for several parameters (including hardness as CaCO₃), magnesium, sodium and total dissolved solids consider regional differences in drinking water sources and quality.

More information on water quality and sample submission performance may be obtained from:

Village of Leask

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Village of Leask Waterworks Rate Policy

2020

On September 29, 2011 Council passed Bylaw 2/2011 to fix the rates to be charged for the use and consumption of water and to fix the rates to be charged for the use of sewer, implementing an infrastructure fee for both services. This was done in preparation of replacing our water treatment system with a Reverse Osmosis treatment plant which was put into commission in February 2013. This project was fully funded by the Village due largely in part to the infrastructure fees and increases implemented previously in preparation.

At the time of reviewing the RO system that would meet the needs of its residents, Council also looked at the potential to sell RO water to area farmers to be used in the spraying and chemical operations. Contracts were signed and Council then increased the size of its RO trains to accommodate the additional volumes that would be going through. The water is provided at the same cost to the farmers as to residents inclusive of the 20% sewer rate despite the fact that none of the water used will be going through the lagoon. This relationship has benefited both parties and continues to be renewed yearly. The revenue generated from this agreement from 2013 is on average \$8,252.00 annually which is equivalent to 113 residences, over half of the Villages 204 service connections, allowing Council to maintain lower rates.

Due to the increase in waste water generated by the RO System, the Permit to Operate issued to The Village of Leask was done on the condition that the lagoon capacity be increased by 2017. Currently, the Village is operating under a Permit to Operate a Pilot Project granted by WSA in order to assess the performance of the aeration system installed in 2016 to address the capacity concerns of the lagoon. Council's foresight in implementing an infrastructure fee of \$10.00 per month per household is largely funding this project, along with the PTIC Grant that the Village was awarded

In January 2020, the water works revenue and expenses were reviewed by Council and it was felt current waterworks rates were sufficient to meet their goals for the upcoming year. The rate policy of \$1.47 per 100 gallons remained unchanged for the 2016 billing year under the approval of the Sask. Municipal Board, as adopted under the water bylaw dated September 29, 2011. Council will continue to closely monitor rates and service billing to ensure waterworks revenues cover waterworks operating costs and to meet system upgrades where required. They proceeded with a proposed 15% increase for 2017 and each of the following 2 years only when required. At the same time, Council will closely monitor waterworks expenditures.

By planning the waterworks rate increases ahead of time, residents and businesses will be able to prepare for and adjust to the increases. Bylaws will be passed each year for the water rate change.

Below provides the per 100-gallon water rate used for 2013 as outlined above. The intention was to increase rates by 15% by year, however, council decided to leave current rates for the 2020 year, as residents were adjusting to the new billing system, fee structure and the significant increase in rates from 2011. Since the installation of a Reverse Osmosis system in 2013, Council is in the process of reviewing the impact on the sewer system and lagoon and will be considering changes to the sewer rate portion of the waterworks rate, but at this time, current charges were felt to be accurate.

Date	Per 100 Gal. Rate	Min. Monthly Rate	Sewer Rate	Infrastructure Fee	Est. Monthly Charge
January 1, 2013	\$1.47	\$44.00	20% of Usage	\$10/water - \$10/Sewer	\$73.00
January 1, 2014	\$1.47	\$44.00	20% of Usage	\$10/water - \$10/Sewer	\$73.00
January 1, 2015	\$1.47	\$44.00	20% of Usage	\$10/water - \$10/Sewer	\$73.00
January 1, 2016	\$1.47	\$44.00	20% of Usage	\$10/water - \$10/Sewer	\$73.00
January 1, 2017	\$1.69	\$51.00	20% of Usage	\$10/water - \$10/Sewer	\$81.00
January 1, 2018	\$1.86	\$56.00	20% of Usage	\$10/water - \$10/Sewer	\$87.00
January 1, 2019	\$1.86	\$56.00	20% of Usage	\$10/water - \$10/Sewer	\$87.00
January 1, 2020	\$1.86	\$56.00	20% of Usage	\$10/water - \$10/Sewer	\$87.00

The objective of the waterworks rate policy is to work towards waterworks that are self-financing, where the users pay for the cost of the service. To accomplish this, waterworks rates need to increase over time so that the revenues cover operating costs, to the extent possible. In addition, portions of surpluses gained will be returned to the general surplus to ensure there is sufficient surplus to cover current reserves. At the end of each year of the planned rate increases, Council will review its waterworks policy to determine if revenues are covering costs. They will also review waterworks rates to determine if waterworks infrastructure reserves will be sufficient to cover upcoming replacement and maintenance costs.

The waterworks rate policy will work towards financially independent waterworks that do not have to compete with other key municipal financial demands under the municipal general revenue fund. This will ensure our waterworks can provide safe drinking water. Also, rates that cover costs will influence consumer demand and water conservation, and self-financing waterworks will reduce pressures on property taxes. Reduced funding for the waterworks from the general revenue fund will be reflected in future mill rates.

Village of Leask Waterworks Capital Investment Strategy 2020

On September 29, 2011 Council passed a resolution on a capital investment strategy which has been reviewed each year.

The objective of the waterworks capital investment strategy was to address the replacement of the water treatment plant and to address infrastructure maintenance and future upgrades and improvements in a timely fashion so as to ensure the municipal waterworks provides safe drinking water to residents and businesses.

In February 2013, Council put into service a Reverse Osmosis Water Treatment Plant as planned. This capital investment strategy has helped realize the objective of providing safe drinking water for our community in the present and future.

Capital plans have been established to address the waterworks infrastructure deficiencies and replacements as identified and prioritized in the 2005 waterworks assessment to ensure safe drinking water. The current waterworks capital plans and planned sources of funding are as follows:

Project	Planned Year of Completion	Incurred cost	Future Cost*	Sources of Funding
Lagoon – Increase Capacity	2023	300,000	330,000	PTIC
½ of Outside Meter Readers	2023	50,000.	53,045	Gas Tax/Village Funded
½ of Outside Meter Readers	2023	50,000.	54,640.	Gas Tax/Village Funded
Rehab/Replacement project of water shut-offs	2022	40,000	40,000	Gas Tax/Village Funder

*Assuming a 3% rate of inflation per year

For future waterworks capital plans, projects will be prioritized based on what is needed to ensure safe drinking water.

Annual Financial Overview for 2017

Total 2020 waterworks revenues (as reported in the Financial Statements)(R)- \$287,283.00

Total 2020 waterworks revenues returned to general revenues - \$0.

Total 2020 waterworks expenditures (as reported in the Financial Statements)(E) - \$258,426.00

Total debt payments on waterworks infrastructure loans (D) – Zero (no waterworks debt)

Comparison of waterworks revenues to expenditures plus debt payments, expressed as a ratio –

$$\frac{248,172}{208,778} = 124\%$$

For 2020, waterworks revenues covered 124% of the waterworks expenditures.

Reserves available for waterworks capital infrastructure - \$142,095