



**SASKATCHEWAN  
COMMUNITY WATER USE RECORDS  
2007 to 2021  
REPORT NO. 35**

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## INTRODUCTION

This document contains water consumption data for the majority of Saskatchewan municipalities from 2007 to 2021. The information includes Saskatchewan Ministry of Health population statistics, monthly, yearly, average day, peak day and per-capita water consumption as well as peak day factors. For 2021, The Water Security Agency obtained water consumption records from 466 communities or agencies; data for private distribution systems where the total is consistently below 5,000 m<sup>3</sup>/year are not included in this report. Data for most of the First Nations for 2018 through 2021 was not available at the time of publication. This document will be updated on an annual basis. Further, this report no longer contains Appendix B, the list of communities where data were not received (or not rational).

Where community water usage records do not exist or data as obtained appears to be erroneous, the average water demands of between 230 and 450 litres/capita/day (LCD) could be used. Comments on questionable and/or missing data are included in Appendices A and B. The provincial weighted average and provincial average as shown are based on communities having water consumption in the range of 130 to 750 LCD.

It should be noted that the litres/capita/day (LCD) for some communities such as Resort Villages and First Nations may be misleading because the population may not reflect the actual users. It should also be noted that the peak day water consumption shown for each community (one-day occurrence in a year) is for information only and may be used for design purposes with caution. Sometimes this peak day water consumption data could be exaggerated due to a water main break, fire demand or other problem with the treatment or distribution system.

When communities report their peak day consumptions, occasionally questionable data is reported; this can be due to various reasons. For example, some communities may have more than one water meter. Other communities do not monitor their daily consumption. Such examples illustrate why peak day consumptions to be used in design purposes should be used

with caution, as questions can be raised as to where the peak day data originates. In the case where questionable peak day data exists, the table located on the next page has been provided for reference.

Further to this, some communities continue to report very low peak day consumptions. The reason for this low reporting has not yet been discovered. For this reason, some low peak day factors may still be found within this document but these data remain questionable.

For design purposes, water supply and treatment facilities serving municipalities with a population under 10,000, the peak day demand may be taken as two to three times the average rate. A peak hour factor of three to four would apply for distribution pumps. The table on the following page may be utilized for peaking factors for various sized communities.

The water type (R/T/U for Raw/Treated/Unknown) shown in this report next to the year for each record, indicates the type of water measured for that year. The population statistics for First Nations from 1998 onward have been provided by the Saskatchewan Ministry of Health where the statistics are available. A zero (0) does not necessarily indicate that no water was consumed, but that water records may not have been available.

For this publication, we have placed the usage records for pipeline-served utility groups after the named communities in the main report.

<b>RECOMMENDED PEAKING FACTORS FOR MUNICIPAL WATER SUPPLY SYSTEMS</b>		
<b>Population Range</b>	<b>Peak Day Factor (For Supply and Treatment)</b>	<b>Peak Hour Factor (For Distribution)</b>
Up to 500	3.00	4.50
501 - 1,000	2.75	4.13
1,001 - 2,000	2.50	3.75
2,001 - 3,000	2.25	3.38
3,001 - 10,000	2.00	3.00
10,001 - 25,000	1.90	2.85
25,001 - 50,000	1.80	2.70
50,001 - 75,000	1.75	2.62
75,001 - 150,000	1.65	2.48
Greater than 150,000	1.50	2.25

<b>PROVINCIAL AVERAGES</b>			
Litres/Capita/Day (LCD) between 130-750			
Year	LCD <sup>1</sup>	Weighted LCD <sup>2</sup>	Communities used in Average
2012	270	338	298
2020	262	328	322
2019	262	341	335
2018	269	356	353
2017	276	375	340
2016	268	343	339
2015	293	367	388
2014	289	368	390
2013	284	387	411
2012	279	386	418
2011	275	383	405
2010	295	362	486
2009	328	408	523
2008	324	417	519
2007	331	438	516

<sup>1</sup>The LCD (litres/capita/day) is computed by summing the LCD for each community and dividing by the number of communities and 365 (days).

<sup>2</sup>The Weighted LCD (litres/capita/day) is computed by summing the yearly water consumption for each community and dividing by the total population and 365 (days).

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