

Why Newfoundlanders are the highest water users in Canada

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Brought to you by the BCWWA Water Sustainability Committee

According to Canada Mortgage and Housing Corporation (CMHC), residents of Newfoundland are the highest per-capita water users in Canada. It says so right on page two of their *Household Guide to Water Efficiency*. The statistic (561 litres per capita per day (Lcd)) is also on the CMHC website.

But I do not believe it.

I lived in St. John's for almost 10 years and never once used a lawn sprinkler. I did not even own one. There is no agriculture to speak of and no major manufacturing. It gets cold in winter, but not so cold that you need to run water lines to prevent freezing. Most of the water use in St. John's is residential, commercial and institutional.

Leakage through aging systems is about the only thing that might account for such high water use in Newfoundland. But, since there are also no residential water meters in the province, how did they come up with that Lcd statistic in the first place?

This is one of the reasons I do not really trust Lcd statistics when comparing water use between communities, or even measuring water use reductions in your own.

Consider how two towns might calculate litres per capita differently: a town without water meters may simply divide total water consumption by population and – voila! – there it is;

whereas a town with water meters may divide just residential consumption by population to come up with its number.

One town has better data than the other, so you have two different calculations, measuring two different things, claiming to represent the same statistic: litres per capita per day.

That is probably how Newfoundland residents end up getting tagged with “the highest water users in Canada” label, when it is far more likely that residents in warmer, drier climates such as southern Ontario and British Columbia are more deserving. Not all provinces measure the same thing.

Another factor that impacts Lcd is population density. Here in Kelowna, we have seen a significant reduction in per capita water use over the past 15 years, but we cannot attribute all of it to water meters, rates, and public education. Some of it is simply because of the trend towards higher density housing.

One-hundred people living in 50 condos will use considerably less water than the same number of people living in 50 single-family homes, simply because most of the outdoor component is removed. So, an increase in high density housing, even where no water conservation programs are in place, will result in lower per capita usage.

Mark Twain once said there are lies,

damned lies, and statistics. And that was over 100 years ago, before we had computers and billions of data points to analyze. All the numbers available to us these days can lead to some odd statistical reporting, where water consumption appears to be increasing and decreasing at the same time.

Let's look at Kelowna again: total water use has increased by 2% since conservation efforts began in earnest 15 years ago. So, that is not good, right? But, over those same 15 years, total population has increased by 35%, representing a major drop in litres per capita. So, that is good, right? It depends on which reporter is writing the story.

I am sure that CMHC uses the best data available, but, with no explanation of how Lcd was determined, their statistics are not really reliable. Even the AWWA's Water Wiser Glossary does not define what Lcd actually measures or how it should be calculated. It is almost like we need an asterisk to explain the calculation every time Lcd is used.

So, whenever I see that Newfoundlanders are the highest water users in Canada, I am reminded of a song by the Northern Pikes – she ain't pretty, she just looks that way! Newfoundlanders are not the highest water users, statistics just make them look that way. 💧