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Chaire de recherche du Canada en génie de traitement des eaux usées

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L'eau, la santé et l'environnement

L'eau n'est pas abondante

- 97% de l'eau mondiale est salée ou non potable pour d'autres raisons
- 2% est renfermée dans la calotte glaciaire ou des glaciers
- Cela ne laisse que 1% pour subvenir à tous les besoins de l'humanité

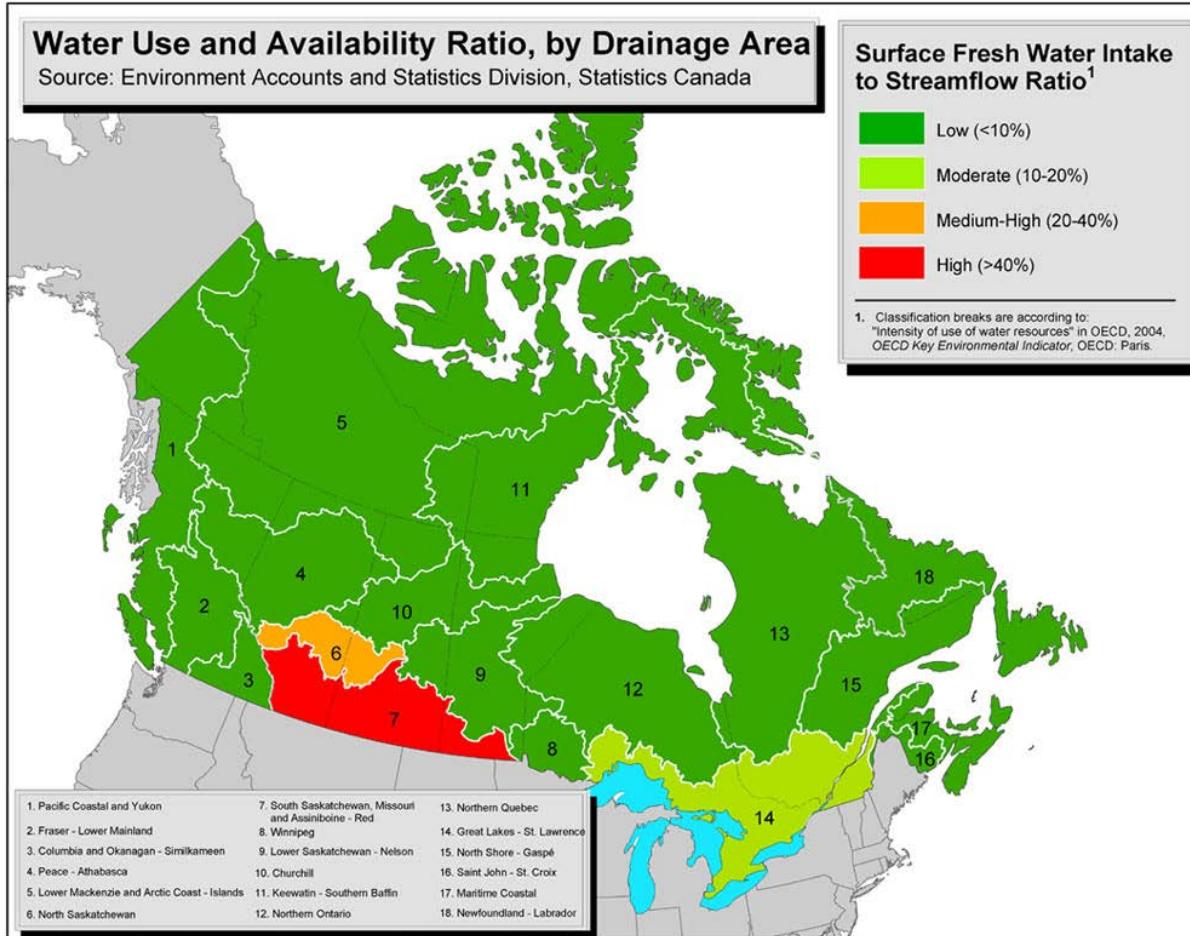


Le Canada semble posséder beaucoup d'eau

- La présence d'eau ne signifie pas qu'elle est renouvelable
- L'eau n'est pas toujours disponible où il en faut
- 60% de l'eau du Canada se dirige au nord, dans les régions arctiques ou subarctiques
- La pollution constitue un problème croissant

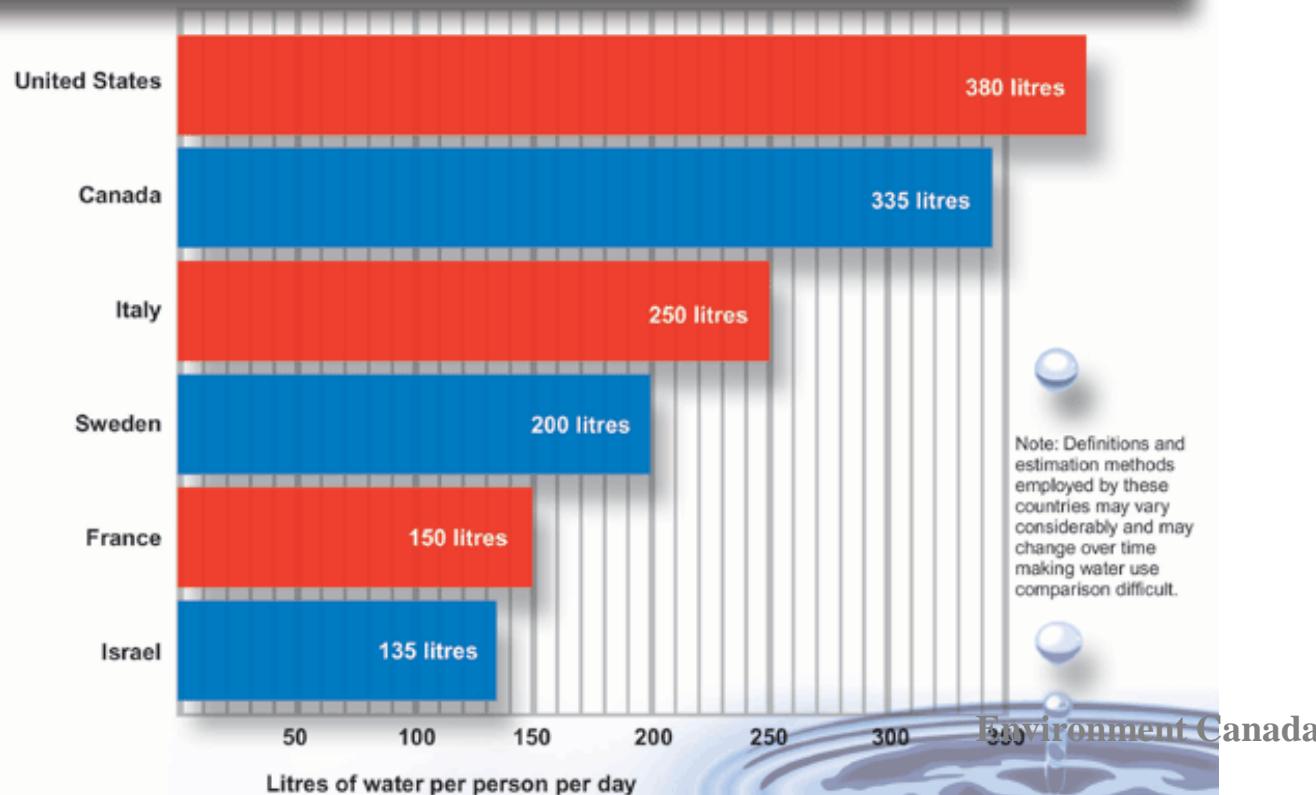


Rapport de consommation et de disponibilité d'eau par zone de drainage



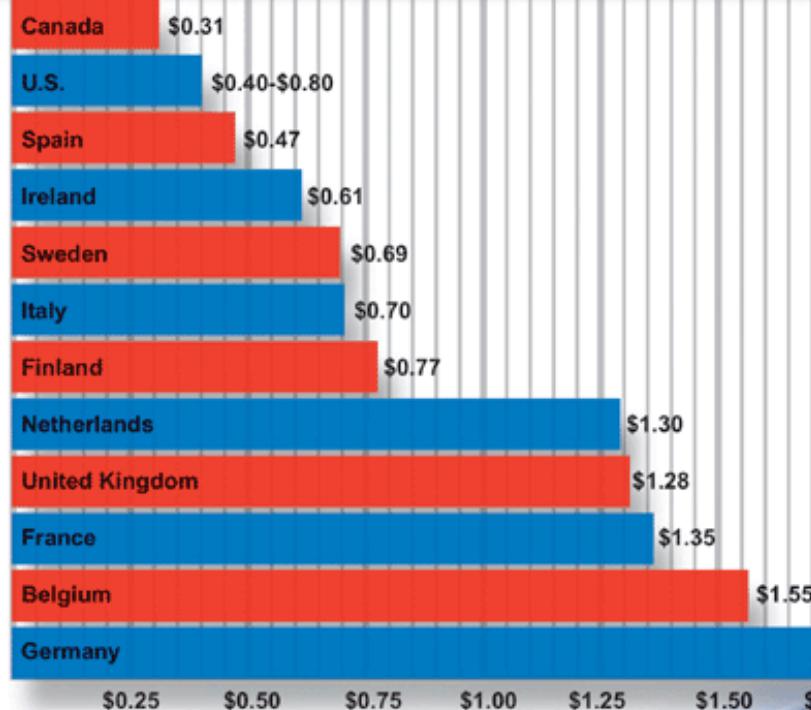
Consommation quotidienne moyenne d'eau à domicile (par habitant)

Average daily domestic water use
(per capita)



Prix typiques pour l'eau municipale (par mètre cube) au Canada et à l'étranger

Typical municipal water prices in Canada and other countries (per cubic metre)



Source:
World Commission
on Water for the 21st
Century, 1999.
"The Poor Pay Much
More for Water... Use
Much Less – Often
Contaminated."
(www.worldwatercouncil.org)

* All amounts are
based on a 1998
survey of OECD
countries and are
calculated using a
purchasing power
parity (PPP) method.

Environment Canada

The World Water Commission assembled its data from a wide variety of sources, including its own research, World Bank reports, UN data, private sector surveys, non-governmental organizations, and other Internet sources. The findings are preliminary rather than definitive, but do show trends.

Prix typiques pour des boissons populaires (en dollars / 1000 litres)

Typical prices for popular beverages (\$/1000 litres)

Beverage	Cost *
Tap water **	1.14
Cola	850.00
Milk	985.00
Bottled water/Mineral water	1 500.00
Beer	2 500.00
Wine	9 000.00
Whiskey, gin...	26 700.00



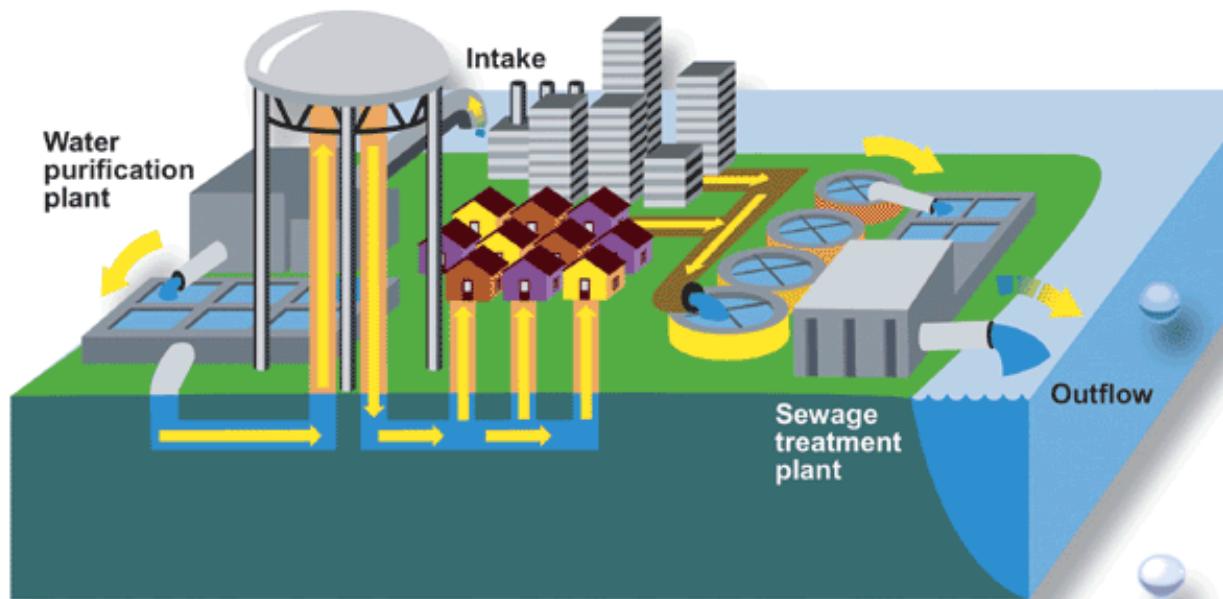
* All amounts are in 1999 Canadian dollars.

** Only tap water includes automatic delivery to the user. This figure also includes the cost of waste treatment.



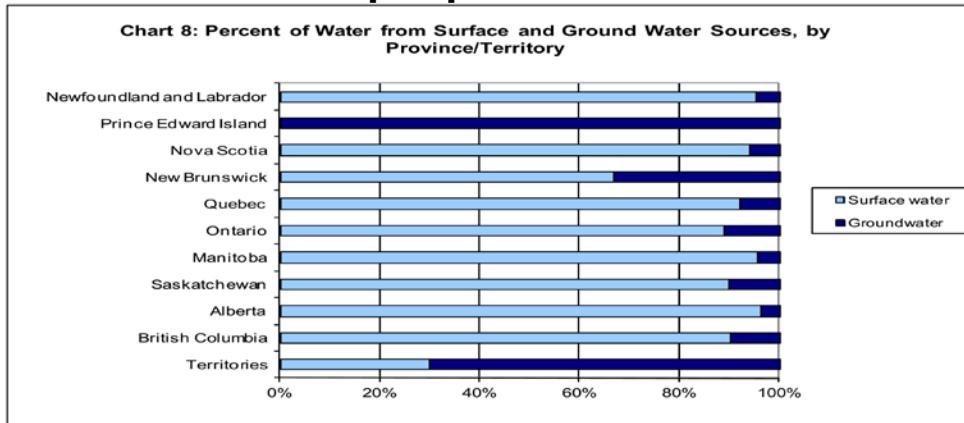
Alimentation en eau et traitement des eaux d'égout au niveau municipal

Municipal water supply and sewage treatment



Environment Canada

Tableau 8 : Pourcentage d'eau provenant de sources d'eau de surface et d'eau souterraine par province ou territoire



Problems with water availability continue to exist in Canada

Of the 738 municipalities (total responding population of 21.1 million people) that submitted information on water supply problems, 86 (12.1% of the total responding population) indicated that they experienced a water supply problem from January 1, 2007, to December 31, 2009.⁴ This information provides only a high-level assessment of water supply problems in Canadian municipalities, as the detailed causes of the problems are not identified. Water supply problems can include, but are not limited to, insufficient water resources, broken water mains, washouts due to floods, and planned or unplanned plant closures.

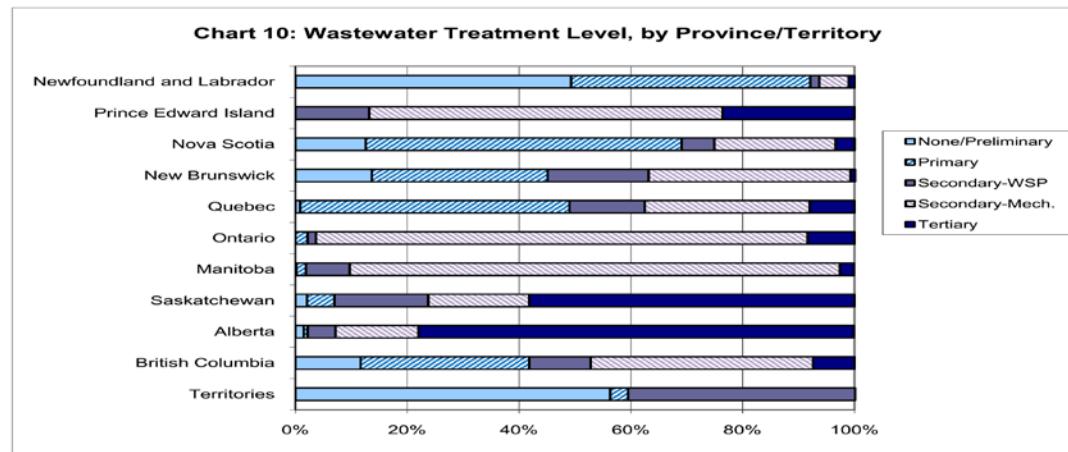
The MWWS also collects high-level data on water quality problems. Of the 746 municipalities (total responding population of 20.4 million people) that submitted information on water quality problems, 206 (33% of the total responding population) indicated that they experienced a water quality problem between January 1, 2007, and December 31, 2009. Water quality problems can include, but are not limited to, aesthetic (taste or odour), chemical, microbiological and radiological problems.

In some cases, water supply problems can lead to water quality problems. Broken mains or insufficient water flow, among other factors, can lead to contamination of the water supply.⁵

⁴ In the MWWS Water Use Report (2006 data), it was reported that 16% of responding municipalities indicated that they experienced water supply problems sometime in 2006. No comparable statement can be made for 2009, as the 2009 questionnaire collected information for the entire period of January 1, 2007, to December 31, 2009, as a whole and not for each intervening year.

⁵ U.S. EPA, 2006.

Tableau 10 : Niveau de traitement des eaux usées par province ou territoire



Conclusions

Understanding how Canadian communities use water is a prerequisite to gauging Canada's progress toward the sustainable use of its water resources. Environment Canada's MWWS provides information that allows the public, water managers and policy-makers alike to measure and compare different aspects of water use in the municipal sector, and to make informed decisions concerning our valuable water resources and water infrastructure.

The 2009 MWWS results suggest that both residential and total municipal water use per capita is dropping in many parts of the country, indicating a shift towards more efficient use of water both in homes and in businesses. Even so, residential and total per capita water use levels nevertheless remain significantly higher than those observed in many industrialized nations. In fact, the 2009 per capita water use is higher than that recorded in all 30 of the European countries included in a comparative evaluation published by the European Federation of National Associations of Water and Wastewater Services in 2009.⁶ Furthermore, the drop over 2006 to 2009 may be at least partly related to cooler, wetter weather in many parts of the country during 2009. Results from future MWWS survey cycles—beginning with the next survey in 2011—will help to determine whether or not this drop represents a lasting trend.

The increase in metering in both the residential and commercial sectors also suggests an effort on behalf of Canadian municipalities to send a price signal for water demand management and to better

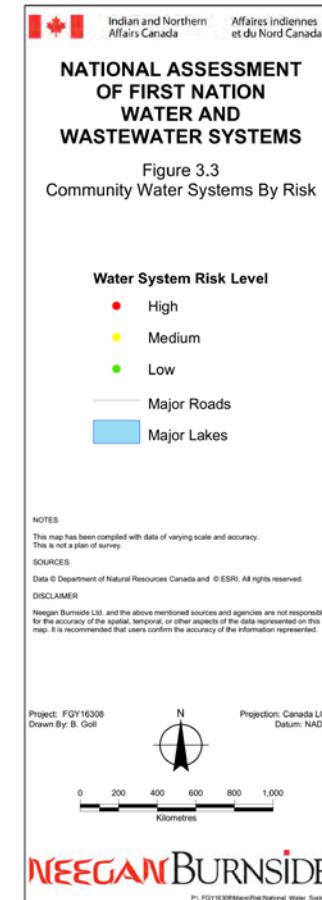
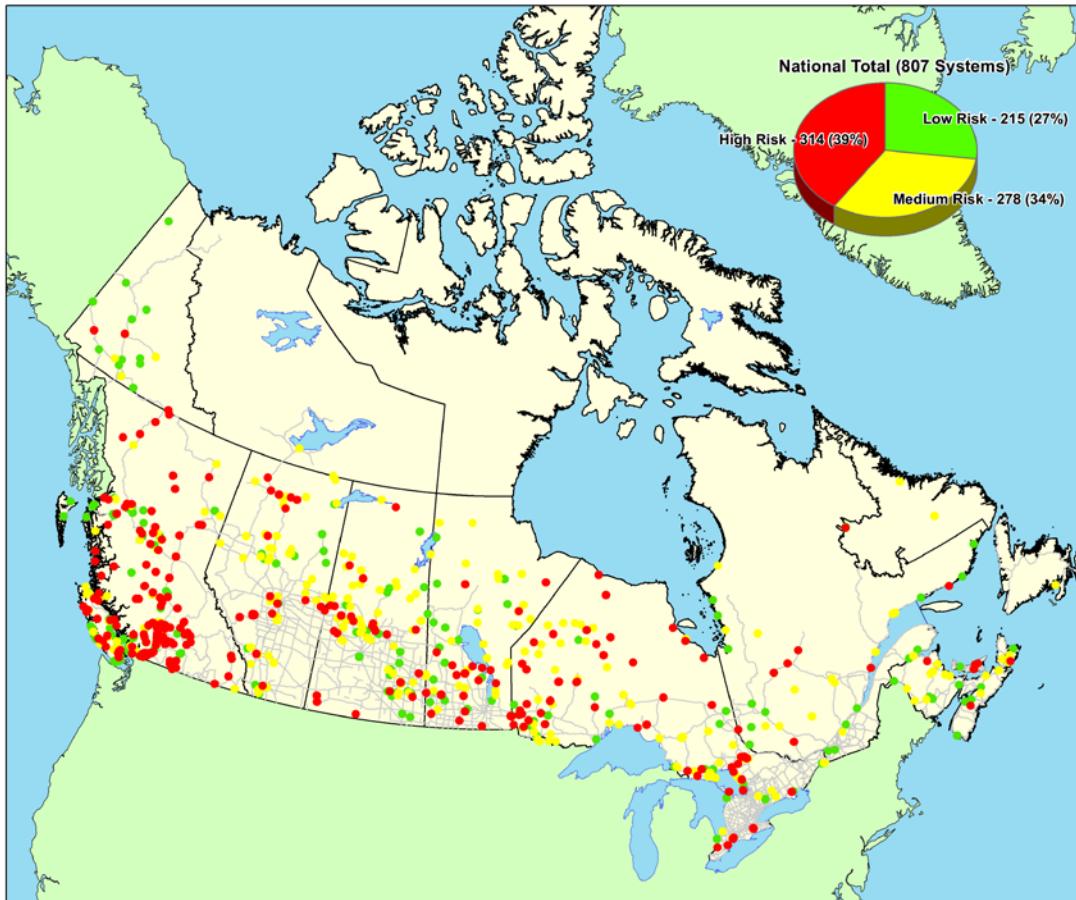
⁶ EUREAU, 2008.

Kashechewan



(CP Photo/Jonathan Hayward)

Évaluation nationale des systèmes d'aqueduc et d'égout des Premières Nations





Merci.