



# WATER FACTS

## Discoloured Drinking Water & Costs

### Overview

The Sault Ste. Marie Public Utilities Commission (PUC) operates, maintains, constructs, repairs and replaces watermains, valves, pumps and reservoirs that are required to provide municipal water to residents of Sault Ste. Marie and the adjacent Rankin Reserve. The PUC is a “not-for-profit” entity and provides this service at cost to its customers in the most cost effective manner possible.

Some customers have expressed concerns regarding the cost of municipal drinking water, both in relation to water wasted when they have to flush their house plumbing (i.e. taps) and in relation to recent significant annual increases in water rates.

### Discoloured Water Events:

PUC regularly performs ongoing operations and maintenance activities on the city’s drinking water system. These activities may include turning system valves off or on, flowing fire hydrants and repairing watermain breaks. Discoloured water can result from any of these activities and is a normal occurrence for any water distribution system. Discoloured water typically results from changes in flow patterns within the distribution system, which may stir up existing deposits of scale and sediment within the pipes resulting from internal corrosion of iron and concrete pipes.

Consumers need not be alarmed by the occurrence of discoloured water. While PUC does not recommend anyone consume discoloured water, the water is safe for consumption at all times, before and after such typical events. PUC advises anyone that does draw discoloured water to flush their cold water faucet (preferably at a laundry or bath tub without screen or filter) for 5 to 10 minutes or until it runs clear before calling PUC Services.

Customers are further advised NOT to run their hot water taps, so as to avoid filling their hot water tank with discoloured water.

### Infrastructure Renewal:

PUC, in accordance with provincial regulations, prepared a Financial Plan in February 2012. The Financial Plan sets out the range of annual rates required to support the long term viability of the municipal water supply. PUC’s Financial Plan identifies the need for significant rate increases over the next ten years which are required to ensure the citizens of Sault Ste. Marie have reliable, safe drinking water in future years.

The provisions of PUC’s Financial Plan are well in line with those of most municipalities in Ontario. This document serves to provide some insight on the issue of infrastructure renewal for Sault Ste. Marie’s municipal water service.

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## **Some Frequently Asked Questions & Answers include the following:**

### **Why do I sometimes get brown (or tea coloured) water?**

PUC performs annual testing of the city's approximately 2,300 hydrants. This work is necessary in order to ensure all hydrants are functioning properly when required to fight fires and is a requirement under the provincial Fire Code. Annual hydrant checks involve a complete physical inspection of each hydrant as well as the discharge of water from each hydrant.

Also, PUC regularly operates valves in the distribution system as part of its normal, everyday operations and maintenance of the system.

These activities may change water flow patterns in the distribution system which may stir up existing deposits of scale and sediment within the pipes, resulting in discoloured water.

Consumers need not be alarmed by the occurrence of discoloured water. While it is not advisable for anyone to consume discoloured water, PUC does want to assure everyone the water is safe for consumption at all times, before and after such discolouration. PUC advises anyone that does draw discoloured water to flush their cold water faucet (preferably at a laundry or bath tub without screen or filter) for 5 to 10 minutes or until it runs clear before calling PUC Services. Customers are further advised **not** to run their hot water taps, so as to avoid filling their hot water tank with discoloured water.

If the water does not clear up after at least 15 minutes of flushing, customers should call PUC Customer Service at 705-759-6522 Monday through Friday from 9:00 to 16:30 and 705-759-6555 at all other times.

### **Why do we have municipal water?**

Municipalities provide public water for a variety of reasons, which can be summarized as follows:

- Fire Protection (i.e. required to protect life and property)
- Sanitation (e.g. bathing, laundry, dishwashing, sewage)
- Consumption (e.g. drinking, cooking, brushing teeth)
- Other (e.g. lawn watering, car washing, landscaping)

In North America, only about 1% of the total water used by municipal water customers is actually consumed for drinking and cooking purposes. Unfortunately, it is the other uses, fire protection and sanitation, that drive the majority of the total costs required to provide the very large pumps, watermains and reservoirs that are required to provide those high flow rates within any city.

### **How much water does the average customer use?**

Based on actual water usage data for all residential customers in Sault Ste. Marie, the average monthly water bill is 17 cubic meters (cu.m.) In other words, the average residential household in Sault Ste. Marie uses 17,000 litres of water per month (or 3,740 gallons per month) for all household purposes.

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## How much does it cost me for the water I drink or use for cooking?

Based on PUC's 2012 rates, the typical residential bill is \$26.62 per month for 17 cu.m. of water used. This is comprised of:

- Basic service charge \$18.06 (covers fixed costs)
- Water consumption \$8.56 (\$6.15 for first 15 cu.m.) + \$2.41 (next 2 cu.m.); or about 0.05 cents per litre of water used – **that's about 1/20<sup>th</sup> of a penny per litre.**

Note that the Basic Charge applies even if no water is used. This is necessary to ensure PUC recovers enough revenue to cover the fixed costs of operating, maintaining and replacing the infrastructure.

If we assume a person typically consumes about 2 litres per day (i.e. 60 litres per month) for drinking and cooking only, and there are, on average, 3 people per household, then the typical household consumes about 180 litres/month (for drinking and cooking only).

Based on the costs noted above, a typical household pays about **9 cents per month** for the water they consume for drinking and cooking only.

## How much does it cost me for the water I use to flush my taps?

The typical kitchen faucet delivers about 6 to 7 litres per minute when opened up to flush household plumbing. Therefore the typical cost of flushing taps amounts to a little less than 2 cents for every 5 minutes of flushing and for each tap used.

## Why are my water rates going up so much each year?

Sault Ste. Marie has over 450 kilometers of watermains that supply water to over 25,800 residential and commercial customers. The vast majority of these mains were installed during the time frame of 1950 through 1980.

With an average useful life between 50 and 80 years for the different types of watermain materials, PUC will have to spend between \$8 and \$10 million per year, every year, over the next 30 years to replace these watermains. PUC is currently spending about \$3 million per year for replacing watermains. In order to meet the future water needs of our city we need to gradually begin building up the rate base to finance the replacement of our aging infrastructure. PUC initiated this process several years ago.

A Financial Plan that is required under provincial regulations was submitted to the Ministry of Municipal Affairs on February 21, 2012. The Plan concluded that water rates must increase significantly over the next ten years in order to reach the level of re-investment into the infrastructure required to ensure a sustainable water supply for the residents of Sault Ste. Marie. The Financial Plan is available for review on PUC's website ( [www.smpuc.com](http://www.smpuc.com) ) at the following address:

[http://www.smpuc.com/images/UserUploaded/files/2011\\_PUC\\_Water%20Study\\_Final%20Report\(1\).pdf](http://www.smpuc.com/images/UserUploaded/files/2011_PUC_Water%20Study_Final%20Report(1).pdf)

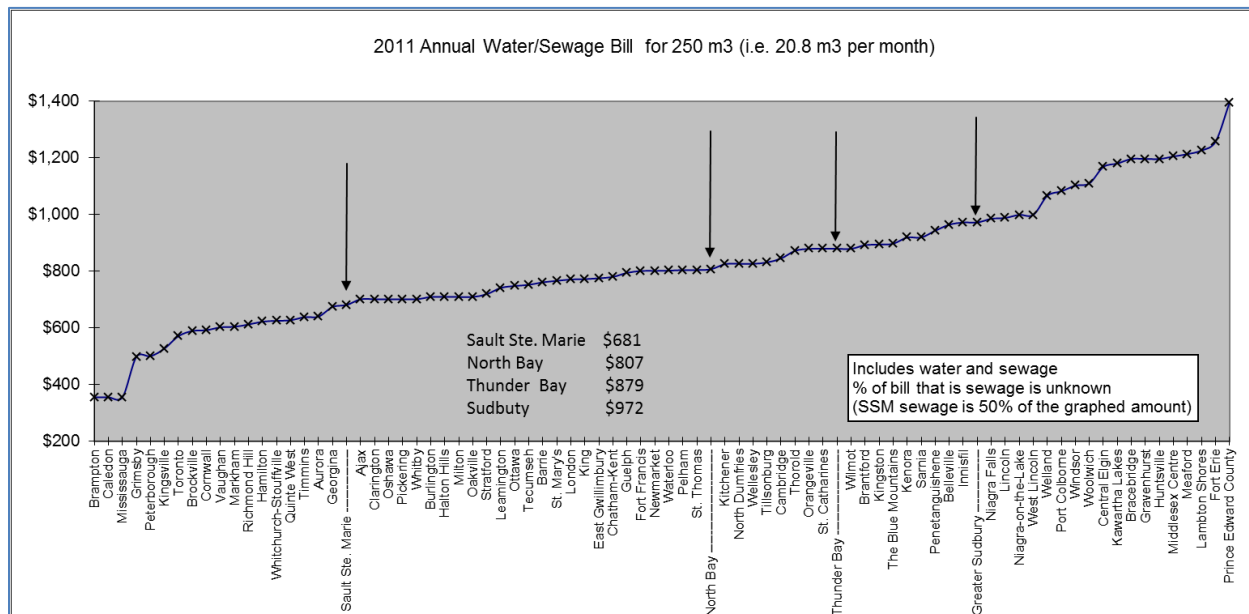
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## Why does my water bill include a charge for “Sewage”?

The City of Sault Ste. Marie is responsible for maintaining the sewage collection pipes and the sewage treatment plants serving residents of the city. It is a common practice across the province for municipalities to base the revenue they need to operate and maintain the sewage system on the costs of operating and maintaining the drinking water system. In Sault Ste. Marie, the PUC bills and collects costs for the sewage system on behalf of the City through the monthly PUC water bill. The PUC does not charge the City for this service and all the money collected is turned over to the City each month. The City determines how much is required.

## How does my water bill compare to other communities in Ontario?

Customers of PUC pay one of the lowest rates for water and sewage in Ontario. The chart below summarizes data that is published annually by BMA Management Consultants and is the most current data available. BMA compares the total combined water and sewage bills for 84 municipalities across Ontario each year based on usage of 20.8 cubic meters per month (i.e. 250 m3 per year).



## Where can I get more information?

For more information contact the following:

- For health related questions call Algoma Public Health at 705 942-4646
- For technical or water supply related questions call PUC Services at 705-759-6522