

# Expanding Our Water Meter Program

## The Challenges

- 100% of our drinking water (or water for household use) comes from groundwater sources.
- Like many communities in southern BC we face drought and water supply issues during the hot summer months and very high energy costs for pumping water during high demand.
- Our water infrastructure — the system that treats and delivers water to our homes and businesses and removes wastewater — will need millions of dollars of upgrading and expansion to keep up with current demand unless we take steps to reduce and better manage our precious water resources.

## The Solutions

- In Grand Forks, all industrial, commercial, institutional and most multi-family properties use water meters to help them conserve and manage water use.
- With the program expanding to include single-family homes, you can better manage how much water you use, allowing you to conserve water and save more.
- Reducing the amount of water you use with a few simple steps in the home and garden can help you save money on your utility bill.
- Conserving water helps save everyone in terms of the tax dollars needed to replace our water infrastructure. To track water use and ensure you are billed only for the water you use, every household in Grand Forks will be equipped with a water meter. These meters will be a key part of the water system.



### WATER WASTERS

- 1 leaky faucet can waste more than 10,000 litres of water a year
- 1 leaky toilet can waste more than 40,000 litres of water a year



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# Why Water Meters?

- Engineering studies on our water system recommend water meters as a key water-saving tool:
  - Universal Water Metering Feasibility Assessment, Urban Systems, 2000
  - Drought Management and Conservation Plan, Dobson Engineering, 2005
  - Water Conservation Plan, Kerr Wood Leidal, 2010.
- Plus, several community plans developed with extensive input from the community identified water meters as a key water-saving measure:
  - Kettle River Watershed Management Plan
  - Asset Management Plan
  - Sustainable Community Plan.

## Proven Success

- Water meters are a proven and widespread way to conserve water — they have been shown to reduce water consumption by nearly 25%.
- Many communities in BC and across Canada already use water meters. As of 2009 in Canada, about 72% of single family residential homes have a water meter.
- Other communities in BC using water meters include West Kelowna, Oliver, Penticton, Summerland, Peachland, Lumby, Chase and Enderby. All City of Vernon residents and those supplied by the City of Kelowna water utility are on water meters, and Kamloops is in the process of installing them.



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# What Are the Benefits of Water Meters?

- Better water conservation – proven to help reduce water demand to a level that can be supported by the local groundwater sources.
- Fairer way to bill – water meters help you manage your own household costs based on how much water you use, which makes it fairer for everyone.
- Reduce capital costs – by using less water, the City can reduce the need to spend millions of dollars upgrading and expanding its water and wastewater facilities.
- Detect leaks – this helps save water as well as lower water and pumping demands which then reduces energy consumption costs.



## SIMPLE STEPS TO SAVE WATER

- **Install a low-flow showerhead and toilet**
- **Don't run the tap while brushing your teeth**
- **Wash a full load of laundry rather than one or two items**
- **Repair dripping faucets or leaky toilets**



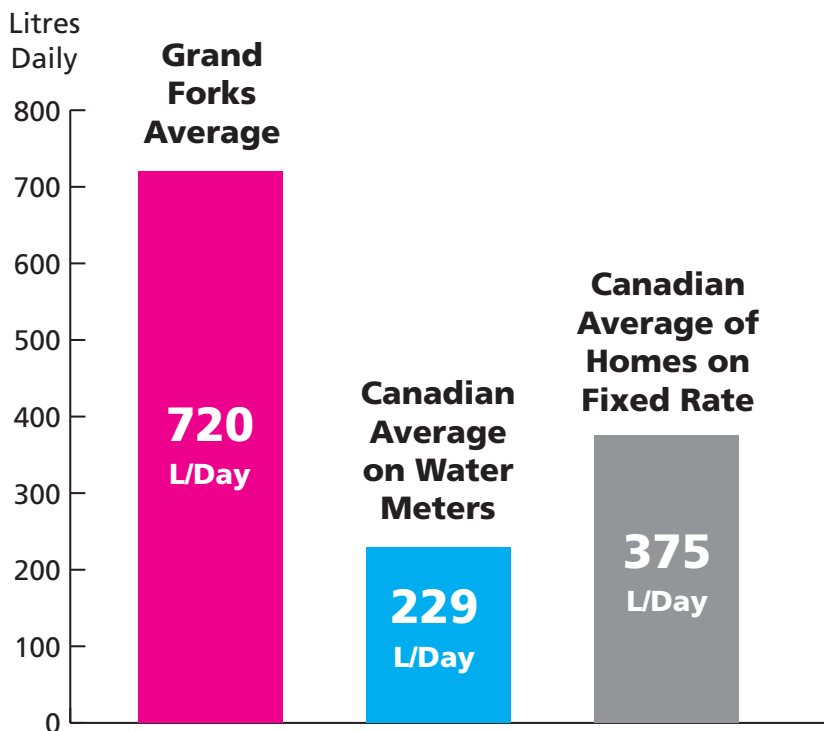
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# How Much Water Do We Use?

- The average Grand Forks resident uses about 720 litres of water (or 0.72 cubic metres) per day — that's more than 3,000 cups of water every day and one-third more than the average British Columbian.
- In Canada, the average daily consumption rate for homes on water meters was 229 litres per person.
- In Canada those homes not on water meters (paying a flat or fixed rate) used about 375 litres per person or 65% higher than metered users.



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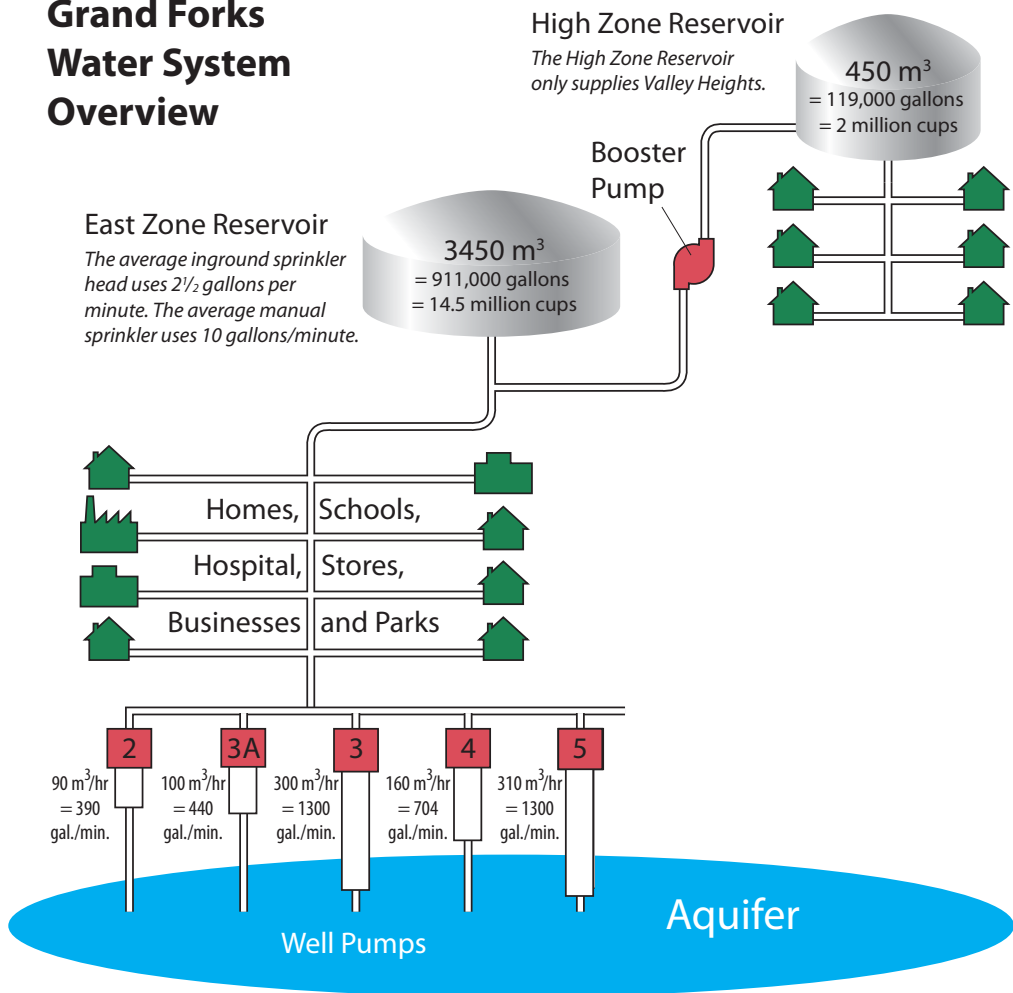
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# Where Our Water Comes From

From source to tap, the City of Grand Forks aims to provide safe, reliable drinking water that meets the needs of its customers while balancing the needs of the environment.

## Grand Forks Water System Overview



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## How Water Meters Work

- During Spring 2014, the City of Grand Forks will issue a *Request For Proposals* from qualified contractors to install the water meters.
- Once a qualified contractor is hired, water meter installations will begin.
- Meters will be installed on an area-by-area basis and each homeowner will need to book an installation appointment directly.
- Typically, water meters are installed near the main water shut-off valve in your home so they can measure the actual amount of water you use. In most communities, water meters are read by sending the info via radio signal. Meter readers won't need to enter your home and can read the info remotely.



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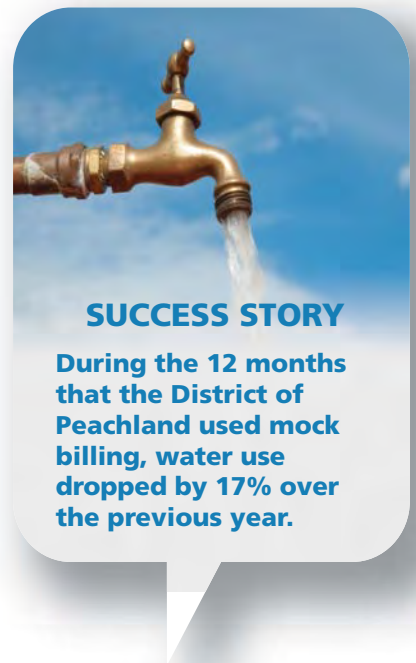
# Project Costs

## Capital Costs: Installation and Implementation

- This project will be funded by the Federal Gas Tax Fund, meaning there should be little or no impact on local property taxes for the installation phase.
- The funding is expected to cover the \$1.3M cost to install and implement water meters.

## Operational Costs: “Mock” and Real Utility Billing

- For the first year of operation, the water meters will track the amount of water you use and send a “mock” bill to show you how much water you use and how much it costs. During this time, your water utility bills will remain the same as they are now.
- Once installed, your water meter will show just how much you are using. You will continue to be billed at a flat rate until consumption rates are determined and the City can establish the new metered rates. Mock billing will give you a chance to see how your water rates may change.
- When the City has a full year of water use data, they will be able to determine a more accurate estimate of just how much water Grand Forks residents are using. It is expected that Council will review the rates used for mock billing before it determines the final rate structure.
- It is estimated that by 2016 the “real” billing starts and the opportunity to save begins.



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# Timelines

## Work To Date

- **2003 – 2012:** Three engineering studies and several community plans developed with extensive input from the community recommended water meters to help us conserve water, reduce impacts on the watershed and groundwater sources and reduce the amount of water and wastewater we must treat and distribute, thereby reducing operating and maintenance costs. The Kettle River Watershed Management Plan has also identified water meters as a solution to conserving more water.
- **November 2013:** Grand Forks City Council approves a plan to move forward with water meters for all residential homes in the city, expanding the program already in place for industrial, commercial, institutional and multi-family properties.

## Upcoming

- **Spring 2014:** *Request For Proposal* issued and contract awarded to installation company. A plan for implementation will be developed once the successful contractor is identified. Meters will be installed on an area-by-area basis.
- **Fall 2015:** Once water meters are installed, mock billing will begin. Mock bills will show residents just how much they are using. Existing water rates will remain the same while installation is ongoing and you will see no change on your bill.
- **2016:** Real billing is expected to start.



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