

water savings	revenue risk	ease of use	cost
moderate to high	low to moderate	moderate	low to moderate

What is conservation pricing?

Conservation pricing involves finding the best water rate structure for your water utility that reduces consumer demand, is fair and equitable for all users and recovers the costs of water service maintenance, delivery, and infrastructure replacement.

Can financial sustainability be maintained when charging by volume decreases demand?

Pay-per-use charges can be so successful that a water utility may see reduced revenues from the water system. Finding a water rate that supports water conservation, maintains public support and is financially sustainable for the water utility is a challenge that municipalities across the Grand River watershed continue to grapple with. Each utility will need to explore solutions that best meet their individual needs. This primer provides several examples from municipalities which have successfully implemented innovative rate structures.

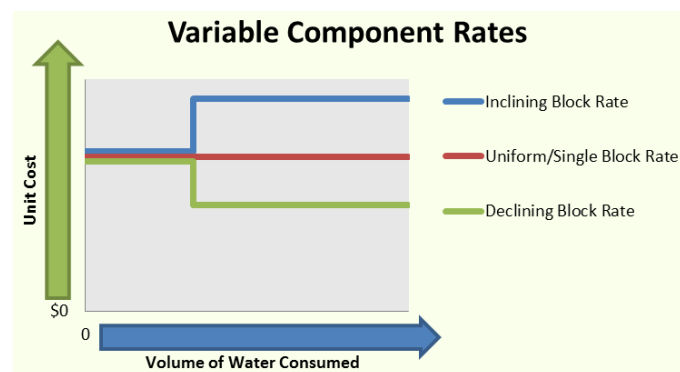
What types of water rates exist?

Municipalities across the Grand and beyond have adopted a wide variety of water rates to best match their specific context and circumstances.

Conservation-oriented pricing may include any of the components described below. The bottom line is to choose a rate system that reflects the true cost of providing water in your municipality.

- **Fixed Component**
A base charge that is the same for all customers, regardless of volume consumed. This can be used to recover fixed costs.
- **Surcharges**
Additional fees charged to specific customer groups for varying reasons (see text box).

- **Variable Component**
Customers are charged by the volume of water consumed. Examples include use of the same rate for all volume levels (uniform rate) or different rates for different volume blocks:



Idea Centre: Innovative Rate Charge Alternatives¹

- **Rolling Average Rate** – average rates across a set of years are used, with excess revenue from a given year due to low demand put into a reserve fund
- **Excess Use Rate** – rate applied to any use over a pre-determined volume
- **Seasonal Surcharge** – charging more for water during seasons with high water demand
- **Distance/Zonal Rates** – higher rates for customers at longer water distribution distances, to compensate for higher infrastructure and operational costs
- **Scarcity Rates** – rates applied to periods of especially low supply
- **Lifeline Block** – first block of water at low to no cost to ensure equity for low-income customers
- **Service on-off charges**
- **Different rates** for indoor water versus outdoor water use

¹ Adapted from: Brandes, O.W., S. Renzetti and K. Stinchcombe. (2010). *Worth Every Penny: A Primer on Conservation-Oriented Water Pricing*. Victoria, B.C.: POLIS Project. p. 19.

Factors to consider when implementing conservation pricing in your municipality

- What are your revenue needs? What are the full costs involved in your water service delivery now and into the future?
- Which sector (e.g. residential, commercial, industry, etc.) is the highest priority target for water demand management?
- What level of support is there in the community?
- How does the public perceive the current system used for water services payment? What is the perceived impact of a price change?
- What is the level of community awareness about the cost of water?
- How will the rate changes affect different user groups?
- Is the rate fair for all user groups?

Balancing revenue, demand, low supply and equity: Seattle Public Utilities

Seattle (population 1.5 million) sees a 35 to 45 per cent increase in water use in the summer months. This coincides with a time of low precipitation when water stored in mountain reserves supply the city's needs, in addition to watershed and ecological functions.

To manage demand, the utility has initiated the following measures for residential customers:

- **Seasonal surcharge** – customers pay an “off-peak usage rate” from September 16 to May 15, and “peak usage rates” during the summer months (mid May to mid September).
- **Three-tiered summer/peak water rates** – in 2012, customers paid rates arranged in inclining blocks by volume of water used (first tier up to ~28 m³; second tier 28 m³ to ~1019 m³; third tier over 1019 m³).
- **Drought surcharge** – used during years of excessive drought to discourage excessive water use.
- **Low income subsidies** – qualified low-income, elderly and disabled customers receive a 50 per cent discount on their water bill.

Case Study

County of Oxford’s four-tiered “humpback” water rate structure

Population (2011): 105,719
 Density: 51.8 people/km²
 Water Supply: groundwater



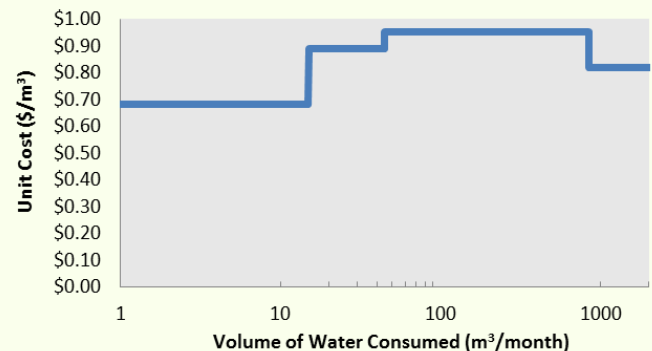
In 2005-2006, the County of Oxford conducted a rate study to overhaul their water rate system.

The County chose a “humpback” water rate structure, a model that encourages conservation while also promoting commercial and industrial development. It consists of a fixed base rate/service charge, plus a volumetric charge.

The rate for the first 0 to 15 m³/month is the base block, the 2nd block is 30% above the base rate, the 3rd block is 40% above, and the 4th block is 20% above the base rate.

Water Consumption Volume	Rate (\$/m ³)
0-15 m ³ /month	0.68
16-45 m ³ /month	0.89
46-850 m ³ /month	0.95
851+ m ³ /month	0.82

County of Oxford Humpback Rate



Deborah Goudreau, Manager of Water Services, County of Oxford shared several lessons learned from Oxford County’s experience at a local workshop on water demand management.



Deborah Goudreau,
 County of Oxford

Communicating the 4-tiered system to the public has been especially challenging, requiring the development of on-line calculators to help residents determine their specific rate.

She suggested a system with fewer tiers may achieve the same municipal objectives while providing fewer communication challenges. Also, conducting water rate studies during a different time period than installing meters would simplify community outreach activities and avoid potential customer confusion.

Resources:

- *Worth Every Penny: A Primer on Conservation-Oriented Water Pricing* (2010). Polis Project, University of Victoria:
<http://poliswaterproject.org/publication/344>
- *Water Pricing Primer for the Great Lakes Region* (2010). Alliance for Water Efficiency:
<http://www.allianceforwaterefficiency.org/AWE-GLPF-value-water-project.aspx>
- Seattle Public Utilities:
<http://www.seattle.gov/util/Services/Water/WaterRates/index.asp>
- County of Oxford water rates:
<http://www.oxfordcounty.ca/ServicesforYou/WaterWastewater/Ratesandbylaws.aspx>

The Water Demand Management Primer series was developed in partnership with the following municipalities and partners:

Townships of Amaranth and East Garafraxa, Brant County, City of Brantford, Bridgewater Research, Township of Centre Wellington, Dufferin Water Services, City of Guelph, Town of Grand Valley, Grand River Conservation Authority, Guelph-Eramosa Township, City of Kitchener, LURA Consulting Ltd., Township of Mapleton, Neeb Engineering Inc., Oxford County, POLIS, REEP Green Solutions, Township of Southgate, Region of Waterloo, City of Waterloo and Wellington County.

This project was undertaken with the financial support of the Government of Canada through the Federal Department of the Environment. This project has received funding support from the Government of Ontario. Such support does not indicate endorsement by the Government of Ontario of the contents of this material.

