

water savings

revenue risk

ease of use

cost

moderate

high

easy to moderate

low

How can an outdoor water use by-law benefit WDM in your Municipality?

An outdoor water use by-law aims to reduce high peak demands on water supply systems, the prospect of having to implement outdoor water use bans and overall pressures on the water supply by restricting outdoor water use by day and/or time. In the Grand River watershed, restrictions are typically enacted in the summer when peak demand is at its highest due to increased lawn and garden watering during periods of hotter temperatures.

What are the components of a water use by-law?

Looking at municipal outdoor water use by-laws across the Grand River watershed, typical components include:

1. **Water Use Restrictions** – such as permitting water use on even/odd days depending on residential address, during particular times of the day, or, for improved effectiveness, restricting outdoor water use to one day per week (by address, on waste pick up days, etc.).
2. **Education and Outreach** – widespread communication and outreach about schedules/restrictions, why the by-law is being implemented, what changes individuals and businesses need to make to their outdoor water use habits, and how this will benefit individuals and their municipality
3. **Enforcement** – typically patrols and fines.

Idea Centre: creative community outreach ideas

- Water supply condition updates
- Student educators engage in conversation about outside water use reduction with property owners in specific neighbourhoods
- "Mock tickets"/information cards to non-compliers
- Community-based social marketing tools (see **Primer #3**)

Offenders face lower water pressure: Oxford County's by-law



In Oxford County, 250 million litres of water were used in 2011 on lawns and gardens. The External Water Use By-Law was implemented as part of the County's plan to reduce this water use.

Offenders of the by-law are subject to lowered water pressure, which is only restored after payment of a fine and a 24 hour waiting period. The by-law also requires residents or businesses using automatic sprinklers to purchase a permit – providing the utility with additional revenue and tracking of sprinkler system use.

<http://www.oxfordcounty.ca/ServicesforYou/WaterWastewater/Ratesandbylaws.aspx>

What is involved in planning and implementing an outdoor water use by-law?

Steps that your municipality can take when designing and implementing a by-law include:

- Building a foundation of support for the by-law through partnerships and community leaders;
- Collecting data and public opinion to support your case for how a by-law can influence water conservation behaviour;
- Talking to and learning from other municipalities with a successful water conservation by-law;
- Identifying your target audience and the best ways to reach them;
- Designing clear and consistent communication messages;
- Keeping the by-law text short, easy to understand and to the point;
- Launching a public education and engagement campaign before enacting the by-law;
- Continuing to communicate with and engage the public once the by-law is in place.

Case Study

Region of Waterloo's Water Conservation By-Law

Population (2011): 507,906

Density: 370.4/km²

Number of Meters/Services (2011): 40,032

Water Supply: 75% groundwater, 25% surface water



From October to May, the Region of Waterloo's 2005 Water Conservation By-Law permits outdoor water use (such as washing cars or watering trees

or shrubbery) on odd/even days during designated hours. From May 31st to September 30th, residents, businesses and institutions are permitted to irrigate lawns one day per week during designated hours. Customers with automatic sprinklers are required to adjust the timed settings accordingly. Fines for non-compliance range from \$150 to \$5000.

Since implementing the by-law in 2005, the Region reports an 8 to 12 per cent reduction in peak demand compared to other years with similar weather. A 2009 survey of residents showed that 87 per cent were aware of the by-law, with 80 per cent following it strictly and 11 per cent following it "most of the time". Overall, the Region has been able to stabilize peak demand each month, reduce the need for surplus capacity to serve peak demand times, and has more water available for emergencies and maintenance.

A key challenge in first implementing the by-law was public concern around the restrictions; it took two to three years before the public became used to the by-law and accepted it. Key to overcoming this challenge was a strong public information campaign that emphasized the need for the by-law – stressing that if peak demand went over a certain level the Region would not necessarily have the water to meet everyone's needs, and the need to have reserve water for fires and emergencies. Other municipalities may face the challenge of reduced revenue during the summer months if outdoor water use decreases. A conservative rate structure is important to address this revenue challenge (see [Primer #8](#)).

Steve Gombos, Water Efficiency Manager at the Region of Waterloo, noted the following as key factors in the success of the by-law:



Steve Gombos,
Region of Waterloo

- Drawing from existing by-law examples in other municipalities;
- Setting a maximum demand objective and communicating the need to keep below that level each day;
- Social research (surveys and focus groups) to measure public opinion;
- Visible support from local politicians;
- Support from the media through editorials;
- Continual public education and communication about the need for the by-law, water wasting, brown lawns being dormant, and changing public opinion on the by-law;
- Patrolling summer students to witness and document violations and issue warnings; and
- Provincial "Set Fine" approval allowing by-law officers to write tickets on the spot.

Gombos has the following words of advice for other municipalities: "*Enforce the by-law, advertise it every year, and be proactive not reactive*".

Resources:

- *Outdoor Water Use Reduction Manual* (2008) Ontario Water Works Association:
http://www.owwa.com/img/content_images/Image/Outdoor%20Water%20Use%20Manual.pdf
- Region of Waterloo Water Conservation By-Law:
<http://www.regionofwaterloo.ca/en/aboutTheEnvironment/Conservation2.asp#waterbylaw>
- Guelph's Outdoor Water Use Program (OWUP):
<http://guelph.ca/living.cfm?smocid=1792>
- Landscape Ontario Irrigation Sector Group education programs:
<http://www.ontarioirrigation.ca/>

Case Study

Guelph's Outside Water Use Program (OWUP)

Population (2011): 121,688

Density: 1,395.4/km²

Number of Meters/Services (2011): 40,032

Water Supply: Groundwater



Guelph's Outside Water Use Program (OWUP) was developed in 2002 to help

conserve Guelph's groundwater supply and protect against the impacts of drought in the summer. Targeted at residential customers, it consists of three levels, each of which increasingly restricts outdoor water use:

Level 0 (Blue) – careful use;

Level 1 (Yellow) – reduce outside use (alternate day watering for lawn); and

Level 2 (Red) – reduce and stop non-essential use (e.g. no lawn watering).



Communication and improving the community's water literacy has been a key part of the program. A weekly Water Conditions Report provides clear-cut parameters as to why specific OWUP levels are in effect, outlining current precipitation levels, river flow and water storage. Since OWUP's inception, public opinion polls have shown that more than 90 per cent of residents recognize and follow the levels in place, and the City has reduced average summer daily water use by over 8.6 million litres.

The OWUP program has not been without challenges. The first was overcoming a strong social norm regarding the need for excessive watering to maintain lawn health. The use of community-based social marketing (see [Primer #3](#)) played a key role in addressing this challenge. The public's perception of fairness and equity of the by-law across all user groups has been another challenge; for example, whether businesses that are high water users should be allowed to continue their use when others face restrictions. Guelph continues to

explore the question of equity across all user groups. Third, the program and its communications have struggled to keep up with growth in the city and addressing new development areas where common communication vehicles for such information may not yet be in place.

Wayne Galliher, Water Conservation Project Manager at Guelph, provides the following words of advice for other municipalities embarking on a water conservation by-law:



Wayne Galliher,
City of Guelph

- Use clear, visible and accessible communications – these tools can start out simple and will increase in sophistication over the life of the program;
- Carry out frequent social research – to understand levels of public knowledge and acceptance;
- Draw on what is out there – tools associated with Ontario's Low-Water Response Plan and other municipalities can be adapted to each municipality's specific context; and
- Seize opportunities through program delivery to leverage other plans and processes that are already highly visible in the community to gain focus for your initiative.

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