

[Autos](#) [Careers](#) [Classifieds](#) [Homes](#) [SUN TV](#) [SEARCH](#)

Flushing away valuable energy

By CAROL MAAS AND NANCY GOUCHER

Last Updated: 5th March 2009, 4:10am

Every time we flush the toilet or turn on the tap, we wash energy down the drain. The cost of pumping, distribution and treatment of water and wastewater is consistently the highest figure on the electricity bill of Ontario municipalities.

To put it into perspective, Toronto Water uses more electricity than the TTC and five times the energy consumed by all the city's streetlights and traffic signals. Energy costs for water pumping and treatment cost the Region of Peel an estimated \$25 million in 2006.

Cities and now the province are only beginning to recognize the critical nexus between water and energy. The most recent evidence of this recognition is in the Green Energy Act, which explicitly links energy efficiency and water efficiency, a first in Canada.

This connection is encouraging since water efficiency is among the most cost-effective energy reduction strategies. In California, the Energy Commission found that implementation of all identified water conservation measures could "achieve 95% of the savings expected from the 2006-2008 energy efficiency programs, at 58% of the cost."

How can Ontario act to reduce the energy and dollars we flush down the drain?

An obvious place to start would be utilizing the new provisions of the Green Energy Act to ban the sale of 13-litre toilets-- still on the shelves of your local hardware store despite the availability of toilets that use a quarter of the water -- something the U.S. did more than 15 years ago in its Energy Policy Act.

Another key action under the Green Energy Act would be to make water conservation a simple choice for Ontario consumers by adopting WaterSense, the water efficiency equivalent of the successful EnergyStar consumer labeling program. The province should also ensure new homes and buildings are as water efficient as possible by incorporating water efficiency standards into the review of the Ontario Building Code required under the Act.

Two other critical opportunities where the province can take action on the water-energy nexus are infrastructure funding and its upcoming water conservation and efficiency strategy.

With smart spending on 21st century water infrastructure -- specifically water efficiency and green infrastructure -- the province would defer construction of energy-sucking water pipelines and treatment plants, reducing greenhouse gas emissions, not to mention saving billions of taxpayer dollars.

By ensuring a stream of infrastructure investment for water efficiency and green infrastructure, the province would enable other municipalities to follow the lead of Peel Region, which plans to defer \$112 million in new water supply infrastructure through a 12-year water efficiency plan costing only \$33 million.

Critically sustainable water infrastructure investment can be deployed quickly, stimulating new employment opportunities for Ontarians in the green economy -- including plumbing, retrofits, planning, and manufacturing -- while fostering Canadian innovation in the burgeoning global water-tech industry.

Perhaps the clearest opportunity to move forward on the water element of the water-energy nexus is the province's upcoming water conservation and efficiency strategy, part of a regional commitment made with Quebec and the eight Great Lakes states.

In combination with the Green Energy Act and smart infrastructure spending, this water strategy should form the blueprint that charts the course towards a culture of water conservation and the spark to realize the co-benefits of water efficiency for Ontario's economy and environment.

Maas is the Innovations and Technology Director at the POLIS Water Sustainability Project at the University of Victoria. Goucher is a senior research advisor for the Forum for Leadership on Water.

Copyright © 2009 Toronto Sun All Rights Reserved