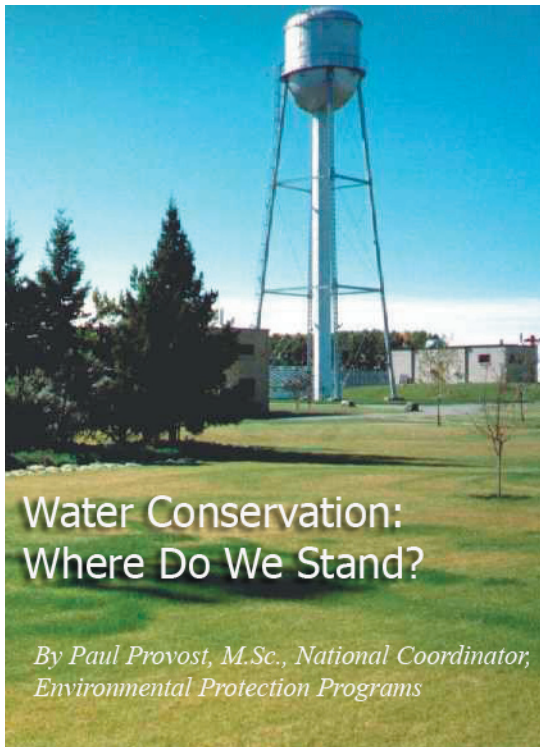


Sector Reports

Corporate Services Sector



Water Conservation: Where Do We Stand?

*By Paul Provost, M.Sc., National Coordinator,
Environmental Protection Programs*

Over the past decade, there has been a lot of talk about water conservation. In 1992-1993, the Correctional Service of Canada (CSC) Green Plan had already approved a corporate objective seeking to reduce water consumption. This objective was subsequently addressed in various editions of the CSC Sustainable Development Strategy (SDS) in 1997, 2000 and 2003. But, besides these departmental commitments, what have we done specifically these past few years to conserve water?

Increased Consumption

Canada is known as a water-rich nation, holding nine percent of the world's fresh water supply. However, we use far too much water to sustain this resource in the long term. The average volume of water used per capita in Canada is approximately 325 litres per day, which is close to double that of most European countries and much more than that of developing countries. In addition to the water wasted, which is neither fair nor socially acceptable in the world, we must also consider the environmental effects associated with the production of potable water and wastewater treatment (air pollution caused by the use of

Bowden Institution water reservoir

energy to treat water and maintain distribution systems, addition of chemical products, disposal of sludge, etc.).

At CSC, water consumption varies significantly from one institution to the next. Water consumption for the top ranking institutions is lower than 300 litres/person/day, while other institutions use over 1,000 litres/person/day. In fact, according to data collected in 2003, the average water consumption at CSC hovers around 800 litres/person/day. Apart from certain specific activities, such as laundry, at some institutions increased water consumption could be explained mainly by the institutions' infrastructure, primarily leaking distribution systems, and by the continuous operation of water-cooled instead of air-cooled systems. The lack of water meters to monitor use in the institutions' strategic sectors would also explain certain over-consumption practices that go unnoticed.

Measuring To Conserve

Since there was no legislative framework on water conservation, and based on the principle that we manage what we can measure, environmental guidelines (EGs) specific to CSC were developed and approved in June 2003 under *Commissioner's Directive 318*, particularly EGs 318-9: Water Measurement and Conservation: http://www.csc-scc.gc.ca/text/plcy/cdshtm/318-gl9-cd_e.shtml.

Overall, these EGs formally mandate institutional offices of primary interest to measure their water consumption, record the results in the *Water Consumption Monitoring Protocol* (a tool developed by National Headquarters (NHQ) and made available on-site via a shared server), and implement water conservation measures. Although each institution is required to reduce its water consumption by implementing projects to achieve its local objectives, the corporate target currently set out in CSC's 2003 SDS is to reduce water consumption by 15 percent between now and 2010 (a decrease from 800 L to 680 L/person/day).

NHQ environmental programs thus attracted special attention in 2004-2005 for water measurement and conservation projects. Consequently, a number of funding requests were received and approved, particularly for projects involving water meter installation and the replacement of air conditioning units or non-recirculated water-cooled air compressors by air-cooled systems. Since then, thanks to these few exemplary projects, CSC will conserve millions of litres of treated water each year in addition to making considerable financial savings. Moreover, it is estimated that some water conservation projects will pay off in less than three years.

Where Do We Stand?

Let's just say that over the past decade we have gone from practically not worrying about our water use, i.e. from generally not even knowing how much we consume, to knowing exactly what our water use and consumption is. In addition, we are now supported by a directive and reduction objective. Increasingly effective institutional water conservation projects should, in all likelihood, improve CSC's environmental performance in this regard.

In short, current water use costs are already rather high and are expected to be even higher as municipalities increase their rates to cover the growing cost of drinking water supply and wastewater treatment. What remains to be seen is whether economic incentives alone will once again be a catalyst for an era of water conservation, or whether corporate policies and commitments put in place will result in ongoing progress and leadership. Of course, initiatives in this regard already promise to bring their share of grist to the mill.

For further information on water conservation in Canada, please visit the Environment Canada Web site at:

http://www.ec.gc.ca/water/en/manage/effic/e_weff.htm ■