Spotlight on Water Fountain
Retro-fitting and Upgrading:
A Guide for Building Managers and Contractors

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Introduction

With growing concerns over the negative social, environmental and health impacts of the bottled water industry, individuals are seeking to ditch the bottle and back the tap! A large part of this movement is to secure access to public water infrastructure.

Across Canada, 76 municipalities, 4 municipal associations (including the Federation of Canadian Municipalities), 8 school boards, 4 universities, and numerous businesses have implemented restrictions on bottled water.¹

The following report will display options in improving existing drinking fountains and information on new models of drinking fountains.

Saving water, money and energy
Providing newer versions water fountains will lead to more efficient use of the world’s most precious resource. Higher levels of efficiency will mean that less water would be wasted, thus saving money and energy.

Building Codes
In Ontario, building codes outline that “on every floor where work will be performed and within 100m of any area where work will be performed, potable water shall be provided from, (a) a fountain with an upward jet, (b) a tap from a piped water supply, or (c) a tap from a covered vessel.”²

Two-thirds of people said they would drink less bottled water if there were better water fountains in their communities.³

¹ Data compiled from Polaris Institute
1. Retro-fitting Water Fountains
New and innovative fixtures are available to meet additional demands on water drinking fountains. These are designed to make fountains more convenient and more accessible through higher efficiency. These fixtures provide a stronger flow of water so that containers can be filled more quickly. Furthermore they can be added to already existing water fountains.

1.1 Types of Retro-fitting: Spouts
The spout fixture allows a refillable water bottle to be filled up easily by using one hand to press the container against the lever, much like soft drink dispensers in fast food restaurants.
1.2 Types of Retro-fitting: Gooseneck
A more familiar shape in relation to household kitchens, gooseneck fixtures have a small lever towards its base that can be pushed to release water. The longer length of the neck will enable containers to be filled while being held upright, unlike with traditional water fountains.

![Gooseneck Fixture](image)

Figure 3: Gooseneck Fixture (University of Winnipeg)

1.3 Types of Retro-fitting: Remote Chillers
Remote Chillers are made to transform a non-refrigerated drinking fountain into one that dispenses cooled water. The system is controlled by an adjustable thermostat. Designed for use with any type of drinking fountain, it can be installed near or under the unit.

![Remote Chiller](image)

Figure 4: Model SJ1-Q Remote Chiller

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Spotlighted Community: University of Winnipeg

A pioneer in the campaign to rid campuses of bottled water, the University of Winnipeg became the first Canadian institution to implement a ban on the provision and the sale of bottled water on campus. In alliance with this phasing out of bottled water was the installation and upgrade of campus water fountains as displayed by Figures 1, 2 and 3. The retro-fitted water fountains with their goose neck and spout fixtures provide more efficient ways of refilling water bottles.

“The fact that we have joined with our administration and taken ownership over our environmental impact on campus sends a strong message across the country – it was a community effort”

– Vinay Iyer
President of the University of Winnipeg Student Association (UWSA)

2. Upgrading Water Fountains
Improvements in design to the types of drinking fountains aimed at creating more accessible, efficient and hygienic mechanisms have led to an array of new options of fountain models.

2.1 Types of Water Fountain Upgrades: Reverse Osmosis (RO)
Reverse osmosis works in much a similar way to a human body’s cell; by filtering water through a semi-permeable membrane which is placed in between a concentrated and a dilute solution, as indicated by Figure 1. Highly regarded as the most thorough method of filtration, the advantages to this system are that it requires little maintenance and eliminates almost all types of possible water contaminants.

![Reverse Osmosis Diagram]

Figure 5: RO process and parts used in filtration

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5 Canadian Federation of Students - Manitoba, “Water Fountain Upgrades at the University of Winnipeg,” 1-2.
7 Ibid
2.2 Types of Water Fountain Upgrades: Chilled Water Drinking Fountains

New fountains that are already equipped with their own cooling system can dispense chilled water without additional components. The model below is wall mounted, made of stainless steel and has push bars on the front, left and right sides. Its shape also allows for easier wheelchair access. Up to eight gallons of water can be chilled per hour using this system.

![Figure 6: Barrier Free Cooler](image)

2.3 Types of Water Fountain Upgrades: Drinking Fountains Non Refrigerated

With its simple, one-piece design the fountain in Figure 6 provides room temperature water. Since they are generally smaller in size, they take up less space and so are ideal for public spaces. Furthermore, the soft-rounded corners and contoured basin reduces splatter, encourages drainage and thus prevents standing water.

![Figure 6: Fountain with Back Panel](image)

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**Spotlighted Community: Manly Council City Water Fountains**

In 2009, Manly, a suburb of Sydney, Australia introduced innovative water drinking fountains designed to meet both environmental and social needs. Created specifically to curb the negative impacts of traditional bubblers, the sleekly designed units are more hygienic, accessible, vandal-resistant, eco-friendly and have additional taps for filling water bottles. Spread throughout the city, large signs beside the fountains make them more visible to the public. The water also goes through a filtration system, largely to remove chlorine, before being dispensed.

![Manly Fountain](image)

3. Accessibility

- **Wheelchair accessibility:** the unit should be 75-90 cm above the floor, providing a water flow at least 10 cm high, and directing the water flow parallel to the front of the unit and controls should be automatic or operable with one hand using a force of not more than 22N.  

- **Controls:** levers or buttons on various sides (front, left and right) of fountain units allow for multiple points of access.

- **Location:** fountains placed near vending machines will make the option of using a drinking fountain more readily available.

The following references were consulted for research purposes and collection of data for this document.

Bibliography


Canadian Federation of Students – Manitoba. “Water Fountain Upgrades at the University of Winnipeg” 1-2.


