



To: Public Works and Transportation Committee **Date:** March 6, 2009
From: Amarjeet S. Rattan **File:** 01-0340-03-00/Vol 01
Director, CPMG
Re: Metro Vancouver Tap Water Campaign and Municipal Declaration

Staff Recommendation

That a letter, signed by the Mayor, be sent to Metro Vancouver indicating that the City of Richmond:

- commits to promoting the value of municipal tap water;
- recognizes the purposeful uses of bottled water;
- intends to maximize opportunities for use of tap water in municipal facilities; and
- encourages Metro Vancouver, as part of their Tap Water campaign, to develop strategies for making tap water the “water of choice” and to work with the bottled water industry to develop a coordinated approach which recognizes the purposeful uses of bottled water.

Amarjeet S. Rattan
Director, CPMG
(604-247-4686)

Att: 1

FOR ORIGINATING DEPARTMENT USE ONLY					
ROUTED TO:	CONCURRENCE				
Environmental Programs	Y	<input checked="" type="checkbox"/>	N	<input type="checkbox"/>	
Facility Management.....	Y	<input checked="" type="checkbox"/>	N	<input type="checkbox"/>	
Emergency Programs	Y	<input checked="" type="checkbox"/>	N	<input type="checkbox"/>	
Finance.....	Y	<input checked="" type="checkbox"/>	N	<input type="checkbox"/>	
Recreation & Culture	Y	<input checked="" type="checkbox"/>	N	<input type="checkbox"/>	
Fire Services.....	Y	<input checked="" type="checkbox"/>	N	<input type="checkbox"/>	
REVIEWED BY TAG	YES	NO	REVIEWED BY CAO		
	<input checked="" type="checkbox"/> <i>MR</i>	<input type="checkbox"/>		YES	NO
			<i>GT</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Staff Report

Origin

At their November 10, 2008 meeting, Council requested that staff investigate and report back on the Metro Vancouver Tap Water Campaign and Declaration (Attachment 1). This report responds to this request.

Background

About the Metro Vancouver Tap Water Campaign and Municipal Declaration

In September 2008, Metro Vancouver launched a tap water campaign to encourage the community to drink tap water in refillable bottles rather than single use bottled water. Metro Vancouver has set a goal of reducing bottled water sales by 20% by 2010 as part of its Sustainability Framework. The tap water campaign also supports Metro Vancouver's waste goal of diverting 70 percent of the region's solid waste from landfills by 2015.

The Municipal Declaration is one initiative under the tap water campaign which seeks commitment from member municipalities to:

1. phase out municipal use of bottled water and the availability of bottled water in municipal facilities;
2. promote the importance of municipal water; and
3. wherever possible and appropriate, encourage the installation of accessible drinking fountains in new and refurbished buildings as well as new and refurbished parks and other public spaces.

The stated basis for these recommendations are the high quality of Metro Vancouver tap water, comparatively high cost of bottled water, and socio-environmental impacts of using bottled water when tap water is available.

Current City Drinking Water Practices

The City of Richmond is both a consumer and distributor of drinking water. For its corporate consumption, the City of Richmond uses both tap water and bottled water consisting single purpose 500mL bottles and re-fillable water cooler jugs. As a purveyor, the City delivers tap water, supplied by Metro Vancouver, to Richmond residents and businesses. Last year, the City delivered almost 40 million cubic metres of high quality water, servicing a population of 182,000 people (RTC – 2007 Annual Water Quality report). The City also provides the option for the community to purchase bottled water in its community centres and other municipal facilities.

Action being taken by Local Governments

Most municipalities in Canada do not have restrictions on the use of bottled water. In Canada, research has found that about 20 municipalities outside of the Metro Vancouver area, mostly in Ontario, are considering or have passed bottled water restrictions. Metro Vancouver advises that they have received correspondence from five member municipalities (Burnaby, Pitt Meadows, Belcarra, Port Moody, and Anmore) supporting the declaration.

Analysis

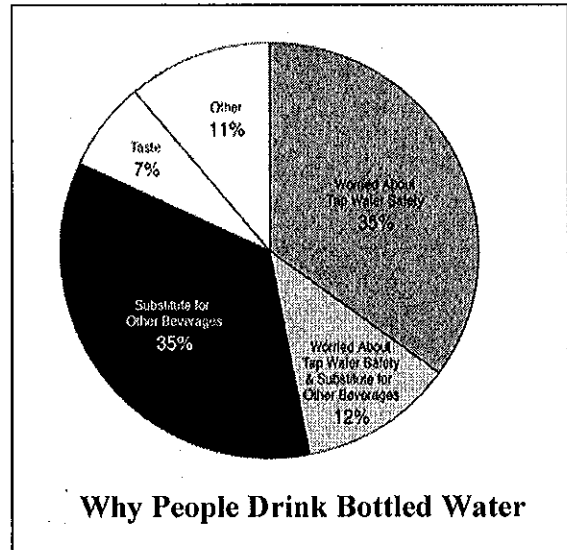
Tap and Bottled Water- A Comparative Analysis

Water supplied through the tap and bottle provide differing benefits and costs. A notable feature of tap water is that it provides safe, reliable drinking water to the entire community for a fraction of the immediate direct cost of bottled water. In Richmond, tap water is being supplied at about \$0.0009 per litre, compared to \$1.00-2.00 per 500 ml bottle. This is regulated under the Drinking Water Protection Act and involves regulation and oversight of the complete system. Tap water also has substantially lower socio-environmental impacts, better supports, sustainable resource use and significantly reduces societal costs over the long-term.

Over recent years, there has been enormous growth in sales of bottled water with now almost 30 per cent of Canadian households using bottled water as their main drinking source. This is despite the fact that it costs significantly more per litre to purchase bottled water than it does to purchase tap water. In addition to economic inefficiencies, recent growth in bottle water has raised concerns over other potential socio-environmental damage¹, including long-term harm caused by some unsustainable water extraction practices and by the manufacturing, transportation and disposal of plastic water bottles. Concerns also arise over selling a material that is considered by many to be a public good.

Some uses of bottled water, however, such as providing drinking water during fire fighting, emergency supply stocks, are purposeful. Bottled water also offers a healthier alternative to other portable beverages.

Marketed by industry as providing a safer, higher quality source of drinking water, research has found that a perception of superior quality is a key reason why people drink bottled water. However, whether bottled water is actually of superior water quality is a difficult and complex question, depending on a number of factors including the condition and quality of the tap water system, condition and quality of the bottled water² and condition and preferences³ of individuals.



¹ Key socio-environmental concerns include:

- **degradation of water source** - some bottling plants are contributing to depleting local water resources faster than they can regenerate. This has resulted in ecological degradation and hardship to local communities from reduced water supply.
- **depleting a valuable non-renewable energy resource** for comparatively low-utility use (e.g., produce plastic for containers) versus other uses (e.g., energy for heat, mobility, food production, manufacturing, etc.). Worldwide some 2.7 million tons (2.4 million metric tons) of plastic are used to bottle water each year (Earth Policy Institute).
- **generates toxic emissions** from plastic production and **greenhouse gas emissions** from use of fossil fuels in production and transport - this is particularly problematic when water is bottled in foreign countries and then shipped worldwide.
- **waste generation** – there is concern worldwide about the waste generated from plastic bottles. Studies in the US have found that recycling rates are below 30%. Recycling rates are much higher in BC where all beverage bottles are managed as part of BC’s Provincial Product Stewardship program. This program places responsibility on industry for being accountable and is one of the most robust systems in Canada. Encorp Pacific states that in 2007, 73% of plastic beverage containers purchased in BC were returned for recycling.

² It is noted that not all bottled water is the same. Bottled water is sourced all over the world from various sources (tap, spring, freshwater), in places with differing standings and regulations, and by businesses with differing standards of practice.

Tap water in the Lower Mainland is deemed safe by public health officials and Metro Vancouver's Tap Water campaign is supported by BC's Medical Health Officers⁴. However, Vancouver Coastal Health advises that, while they fully support the Metro Vancouver Initiative, it is important that no initiative reduce ready access to clean, potable water since this may result in unhealthy choices.

Decision-Making Pertaining to Bottled Water Use - Factors of Consideration

Important factors to consider in evaluating alternative action on bottled water use include:

- drinking quality water in plentiful amounts is essential for health and it is important that no initiative reduce accessibility to water;
- tap water and bottled water provide different benefits and there are purposeful uses of bottled water;
- long-term sustainability of the complete system is important, including ensuring adequate water source protection, providing quality water in a cost-effective manner, and wise use of resources (e.g., energy sources, waste generation, etc.);
- bottled water is much more expensive than tap water and can represent a duplicity of investment as society is already investing into a municipal distribution system;
- drinking water preferences are personal and different people have varying views on safety;
- bottled water is just one beverage which is generating concern and of these many fluids, bottled water is the most healthy (e.g., coffee in disposable cups, juices in plastic containers, pop in plastic, etc.) - an equitable approach would not target the type of fluid but would strive to reduce use of disposable containers across all beverages; and,
- not all bottled water manufacturers are the same - some have much higher degree of sustainability-based practice (use of re-useable bottles, transitioning to biodegradable bio-based containers and not using petroleum-based plastic, sustainable management of water resource, recycling programs, etc.).

Recommended Action

Whereas the Declaration has been written as an either/or approach – seeking the phasing out of bottled water use - staff recommend that the City adopt a more strategic and inclusive “Tap First” approach which recognizes the differing functions of tap and bottled water. The “Tap First” approach:

1. strives to build awareness on the value of tap water and promote tap water use as a first choice; while at the same time recognizing the value of bottled water and;
2. seek to integrate bottled water from high performing companies for its purposeful uses as part of a complete system.

³ For example, where some people may consider residual chlorine in tap water to provide better protection and an attribute, other people may consider the presence of chlorine to be a negative and therefore consider bottled water, which doesn't have chlorine, to be of superior quality.

⁴ Metro Vancouver is currently investing significant funds into a sedimentation filtration system expected to be on-line in 2009. This investment is expected to increase Metro Vancouver's already high water quality.

Key advantages of this approach are:

- it focuses on **what is desired** (i.e., use of tap water as much as possible);
- it provides **flexibility** and embraces the **integration** of bottled water for purposeful uses. This supports an overall reduction in corporate municipal use of bottled water in a manner that meets **operational needs** and **respects personal choice**.

As such, it is staff's recommendation that Council send a letter to Metro Vancouver indicating that the City of Richmond commits to promoting the value of municipal tap water and maximizing of opportunities for use of tap water in municipal facilities. Staff intends to explore various options for increasing accessibility of tap water (e.g., refillable water bottle filling stations, option to order water jugs and cups at meetings, increasing education and awareness). Any initiative that would impact operational costs would be provided for Council consideration prior to implementation.

Staff also recommend that the City acknowledge the value and purposeful uses of bottled water and that the City encourage MetroVancouver to reconsider its approach to Tap Water campaign. Staff suggest that MetroVancouver be encouraged to:

- to develop a targeted education and awareness building campaign, one that encourages use of tap water in a manner which recognizes current public preferences for bottled water and respects its purposeful uses;
- places focus on making tap water the "Water of Choice"; and
- work with the bottled water industry to develop a coordinated approach which recognizes and integrates the purposeful uses of bottled water.

Financial Impact

There is no financial impact associated this report.

Conclusion

Metro Vancouver and the City of Richmond provide high quality drinking water to Richmond residents for a fraction of the cost of bottled water and lower socio-environmental impacts. To support continued investment into a strong public distribution system, this report recommends that the City of Richmond encourage the corporate consumption of tap water, maximize opportunities for tap water consumption in municipal facilities and encourage Metro Vancouver to develop strategies to address current public preferences for bottled water.



Margot Daykin, M.R.M.
Sustainability Manager, CPMG
(604-276-4130)
MD:md

Attachment 1 – Metro Vancouver Tap Water Declaration

WHEREAS, Metro Vancouver's municipal water systems are among the finest in the world; and

WHEREAS, high quality, safe drinking water is already available at most public locations; and

WHEREAS, Metro Vancouver's tap water is strictly regulated by British Columbia's *Drinking Water Protection Act* and is tested over 25,000 times per year and bottled water is regulated by the *Food and Drug Act*; and

WHEREAS, Metro Vancouver will open a new state-of-the-art water filtration plant early in 2009 to further improve the high quality of the region's tap water; and

WHEREAS, bottled water often costs more than an equivalent volume of gasoline, equivalent to 2,000 times more than tap water; and

WHEREAS, up to 40 per cent of bottled water on the market comes from municipal water systems; and

WHEREAS, bottled water often travels many miles from the source, resulting in the burning of large amounts of fossil fuels, releasing CO₂ and other pollution into the atmosphere; and

WHEREAS, millions of single-use plastic water bottles end up in Metro Vancouver's municipal waste; and

WHEREAS, municipalities are responsible for delivering safe and affordable water to our citizens; and

WHEREAS, decreasing and eventually eliminating bottled water from government use demonstrates the emphasis municipalities place on the quality of their tap water and decreases the impact of bottled water on municipal waste; and

WHEREAS, Metro Vancouver and member municipalities recognize the importance of bottled water in times of emergency and times when municipal water is unavailable.

NOW, THEREFORE, BE IT RESOLVED, that (Municipality) will:

- a) seek to phase out municipal use of bottled water and the availability of bottled water in municipal facilities, and will promote the importance of municipal water; and,
- b) will, wherever possible and appropriate, encourage the installation of accessible drinking fountains in new and refurbished buildings as well as new and refurbished park and other public spaces.