

RESPONSE TO PUBLIC WATER NOTICE OF MOTION

EXECUTIVE SUMMARY

Water is a valuable natural resource. The City of Calgary is dedicated to protecting and managing precious water resources and providing high quality drinking water to more than one million Calgarians.

On 2014 February 24, Council approved Notice of Motion 2014-05 directing Administration to identify current barriers to providing drinking water in City-owned publicly accessible buildings and to scope an infrastructure plan to encourage convenient access to drinking water for staff, clientele, visitors, and citizens of Calgary, including Civic Partners' buildings. Council directed Administration to report back through the SPC on Utilities and Corporate Services with a scoping study for this work no later than Q3 2014.

Administration consulted with stakeholders from business units and Civic Partners who operate City-owned publicly accessible facilities, to gather input on the existing state of public access to drinking water. Information was gathered on policy procedures, municipal bylaws, existing infrastructure, strategies and tools used to meet current requirements for providing drinking water at City-owned buildings. This information enabled Administration to understand the opportunities, barriers, potential costs and perceived value (social, environmental and economic) associated with providing drinking water within publicly accessible buildings and the development of a framework outlining scope of work required for an infrastructure plan.

Administration's initial investigation indicates that the current provision of publicly accessible water meets the needs of Calgarians. To ensure Council can make an informed decision, the infrastructure scope plan provides different options that can be explored, along with the associated opportunities, barriers and challenges identified.

ADMINISTRATION RECOMMENDATION(S)

That the SPC on Utilities and Corporate Services recommends that Council receives this report for information.

PREVIOUS COUNCIL DIRECTION / POLICY

On 2014 February 24, Council approved Councillor Gian-Carlo Carra's Notice of Motion 2014-05 requesting Administration to identify current barriers to public access to the City's drinking water and to scope an infrastructure plan to encourage convenient access to public drinking water for the staff, clientele, visitors and citizens of Calgary within public buildings, including Civic Partners buildings. It was further resolved that Administration report back to Council through the SPC on Utilities and Corporate Services with a scoping study for this work no later than Q3 2014.

BACKGROUND

There is no formal City of Calgary Council policy that exists on the provision of accessible drinking water in public buildings. This section outlines the existing service provision, programs and initiatives, and regulatory requirement standards related to staff accessibility to drinking water; followed by a similar summary of current service provision to the public.

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City of Calgary Existing Service Provision – Staff

The Corporate Properties & Buildings (CPB) “Office Space Standards” is a living document (neither policy nor bylaw) that outlines standard practices used for renovations and new building construction. It is general practice to ensure that all employees have barrier free access to a kitchen, with a chiller and tap installed at the sink. This is in accordance with Occupational Health and Safety Codes¹ that requires an employer, to make potable water available to all staff members.²

City of Calgary Existing Service Provision – Publicly Available

Outdoor Fountains

The City provides free drinking water at multiple outdoor sites. There are approximately twenty seven (27) outdoor drinking fountains that operate in public parks with access to water from these fountains provided on a seasonal basis. Moreover, Water Resources provide portable H2O buggies in addition to three (3) hydrant drinking water fountains that are circulated through high traffic/high use areas throughout the summer months when there is no risk of frost (mid September at the latest). H2O buggies are mobile refrigerated and filtered water sources that provide convenient access to water for events, such as concerts, race events, festivals and conventions. Providing City of Calgary water on-site at events meets the needs of event organizers who are increasingly moving away from providing bottled water.

Fountains within Buildings

The City has an inventory of approximately 782 City owned buildings, including 26 Civic Partner Buildings. A total of 373 City owned and Civic Partner buildings are publicly accessible. This equates to 48 per cent of the City and Civic Partners’ inventory. Public buildings are defined as City owned buildings that all citizens have access to. The total number of publicly accessible buildings with accessible drinking water is 166, equating to 45 per cent of the inventory of publicly accessible buildings. Furthermore, the Alberta Building Code, regulates that all fountains installed must be barrier free (i.e. wheelchair accessible) when they are located adjacent to a washroom.³ No standards exist around water bottle filling capabilities or number of fountains required in a building. Attachment 1 provides a comprehensive list of water fountains within City owned buildings, including Civic Partner Buildings.

Service Provision -- Other Jurisdictions

Preliminary online research was conducted to understand approaches used in other jurisdictions. Four cities and their associated plans pertaining to drinking water access for citizens in public places were identified: City of Vancouver, New York City, Chicago, and St. Paul Minnesota. Attachment 2 provides additional details regarding the approaches used in these four jurisdictions.

¹ Alberta Infrastructure, July 9, 2004: *Design Aid for Barrier-Free Accessibility in Existing Buildings, Alberta Building Code*.

² 2009, Government of Alberta: Occupational Health and Safety Act, *Occupational Health and Safety Code 2009, Part 24 Drinking Fluids, Section 355 (2)*.

³ Alberta Infrastructure, July 9, 2004: *Design Aid for Barrier-Free Accessibility in Existing Buildings, Alberta Building Code*.

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INVESTIGATION: ALTERNATIVES AND ANALYSIS

Administration has been directed by Council to determine the barriers to providing public access to drinking water and to scope an infrastructure plan for consideration. A high level review through research and stakeholder input to determine these barriers and scope an infrastructure plan has been outlined below.

Barriers – Physical, Psychological & Cost

Building Accessibility

Most public buildings are not accessible 24/7; and therefore, public access to water within these buildings is limited to building hours of operation (Attachment 1).

Public Desirability

No formal public engagement has occurred to determine the existing level of service or desired level of service regarding the provision of water fountains in publicly accessible City owned buildings and Civic Partner facilities. Furthermore, an inquiry with 311 was undertaken and the result determined that no issues are logged under water fountains. Providing convenient access to public drinking water within public buildings and Civic Partner facilities requires public support or a level of desirability. No known public support for this service has been identified as a barrier.

Negative Public Perception

There can be misconceptions and negative views regarding drinking fountains and water, particularly related to safe drinking water and cleanliness of the fountain. A number of potential users may not drink from public fountains no matter how conveniently accessible. This barrier can be addressed through education, marketing, fountain design and maintenance.

Cost

Cost of provision and operation are also potential barriers. Addition of water fountains within new or existing buildings will introduce a new capital project cost and ongoing operational costs. Scope of Infrastructure Plan

Research was conducted to determine the number of buildings (with water fountains and without), the high level costs to complete the infrastructure plan and the benefits. This analysis can be used to determine if further action should be taken.

Existing Building Inventory

An inventory of 373 publicly accessible buildings has been identified based on the stakeholder consultation (Attachment 1), as well as the following assumptions:

1. Convenient access is defined as an easy means of approach or entry and barrier free access for all people.
2. All staff within public buildings and Civic Partner facilities have access to drinking water via kitchens, water fountains/coolers, and in some cases, bottled water for field staff and emergency crews. The analysis in this report thereby focuses on convenient accessibility for clients, visitors and citizens.
3. All City and Civic Partner buildings have been segmented as:
 - a. Public access – high traffic;
 - b. Public access – low/minimal traffic.

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4. Calgary Transit LRT stations are not included in the definition of public buildings for the scope of this report. Further investigation would be required regarding the provision of water at these locations if the development of an Infrastructure Plan is selected, as per the recommended options found on page 5 of this report.

Based on the preceding assumptions and analysis of the building inventory, a synopsis of the Public Building Inventory and Water Fountain Inventory is highlighted in the table below:

	Number of Publicly Accessible Buildings with Drinking Water	Number of Publicly Accessible Buildings without Drinking Water	TOTAL
High Traffic	90	28	118
Low Traffic	76	179	255
TOTAL	166	207	373

Fountain Types and Cost

It is assumed that providing publicly accessible water fountains will be limited to the buildings without accessible drinking water (207 in total). A class 5 estimate, according to the Corporate Project Management Framework Estimation & Contingency Standard (CPMF) has been prepared to install accessible water in existing infrastructure, see below and refer to attachment 3 for the detailed financial analysis.

	Buildings without Accessible Drinking Water	Cost for the Addition of 1 Fountain per building
High Traffic	28	\$280,000
Low Traffic	179	\$1,800,000
TOTAL	207	\$2,080,000

Development of Infrastructure Plan

A complete infrastructure plan would validate the assumptions made in this scoping analysis, refine the status of existing inventory, establish the number of new fountains required, and provide a class 3 estimate (to refine the above class 5 estimate). Development of a Public Water Infrastructure Plan, based on the defined scope of 373 buildings (high & low traffic), is estimated to cost approximately \$100,000 and would take roughly 9 months to complete. The scope of work can be broken down into two phases: first phases would be to conduct public engagement at an estimated cost of \$40,000 and 3-6 months of effort to determine the public demand and need for water availability within public buildings. The second phase, would undertake the remainder of the infrastructure plan, including the inventory and assessment, asset management plan, marketing and communications, planning and implementation, and the financial report. The second phase is estimated at \$60,000 and would take the duration of time, approximately 3-6 months. The detailed outline or scope of the infrastructure plan is included in attachment 4.

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Recommendation

Based on the above analysis and investigation, three (3) options are presented for consideration:

Option 1

Direct Administration to install drinking fountains in only the high traffic buildings that do not currently provide accessible drinking water at an estimated cost of \$280,000 (class 5 estimate) and 8 months of effort and report back to Council if cost to complete this scope of work exceeds this estimate.

Option 2

Direct Administration to conduct public engagement at an estimated cost of \$40,000 and 3-6 months of effort to determine the public demand and needs, including desirability for publicly accessible drinking water. If there is an identified need and desirability, direct Administration to develop an infrastructure plan at an estimated cost of \$60,000 and 6-9 months worth of effort, for the provision of publicly accessible drinking water, which would include: development of a refined inventory, standards and specification development, a marketing and communications plan, implementation and monitoring plan, and capital and operating cost estimates for the defined level(s) of service.

Option 3

Receive this report for information.

Administration recommends Option 3 – receive this report for information. The conclusion of this initial investigation is that the current provision of publicly accessible water meets the needs of Calgarians for the following reasons:

- Drinking water is available within 45% (166/373) of publicly accessible City and Civic Partner buildings;
- Water Resources is addressing the area of transient demand of water for festivals and events during the summer months; and,
- There is no recorded request for additional public drinking water.

Stakeholder Engagement, Research and Communication

Administration consulted with business unit stakeholders (including: CPB, Recreation, Parks, Community & Neighbourhood Services, Fire, Calgary Transit, Water Resources, Waste & Recycling Services, Animal & Bylaw Services, Law, and Corporate Security), Civic Partners, members of Council and senior leadership. External stakeholder input has been gathered from The City's bottled water vendors regarding The City's bottled water contract including the inventory and retail components.

Strategic Alignment

Council's direction to Administration to scope an infrastructure plan to encourage convenient public access to drinking water for citizens, clients and visitors, aligns with: *Council strategic results*: promoting a positive physical and social environment; *Council's Fiscal Plan for Calgary 2012-2014*: Investing in Great Communities and a Vibrant Urban Fabric; *The 2020 Sustainability Direction*: protecting Calgary's water quality and quantity for long term sustainability and

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resilience; *The Municipal Development Plan*: focusing on the quality of the physical environment and the amenities and services required; and *imagineCALGARY*: making Calgary a great place to make a living and a great place to make a life.

Social, Environmental, Economic (External)

Social

The social and health benefits achieved through the promotion of water and convenience of access to drinking water are becoming increasingly important. Alberta Health Services (AHS) is expanding programming across Alberta to support healthy communities, schools, organizations and individuals. One of the contributors to obesity is the daily amount of calories that come from sugar sweetened beverages. Research has also linked consumption of water to healthy weight and better cognitive function and concentration. More prevalent access to drinking water in public places encourages consumption and provides an alternative to sugar beverages⁴.

Environmental

Environmental benefits achieved through the promotion of water range from: reducing the vast number of plastic water bottles disposed of, reducing the energy reliance on producing bottled water versus water, and encouraging a sustainable alternative. The extensive use of bottled water in recent years has created an enormous garbage problem, sending billions of bottles unnecessarily to landfills.⁵ Bottling water also creates water and environmental issues, making drinking water expensive and less safe, creating water shortages by draining underground aquifers, disrupting watersheds and ecosystems and wasting fossil fuel⁶.

Economic

Economic implications, to The City, around providing publicly accessible water include a potential small loss of revenue associated with retail sales of bottled water. These implications are further explored in the operating budget section below.

Financial Capacity

Current and Future Operating Budget:

A Class 5 – Order of Magnitude Cost Estimate has been completed by Administration to assess the potential capital costs of providing publicly accessible water (option 1). The estimated cost is illustrated in attachment 3. Funding for current and future capital budget would need to be determined and approved by Council.

Current and Future Capital Budget:

Capital costs for option 1 have been identified; future operating budget implications for this option have not been calculated. Operating implications for option 2 consist of the cost to

⁴ AHS, September 7, 2011: “Alberta Health Service Obesity Initiative”: <http://www.albertahealthservices.ca/rls/ne-rls-2011-09-07-obesity-bkg.pdf>

⁵ Go Green Together: Environmental Action Sheet #6: <http://www.gogreentogether.ca/files/WATER.pdf>

⁶ Matt Armstrong and Merylee Sevilla, *Water – A Bottled Business*:
<http://www.water.ca/ts-bottled-water-a-business.asp>

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complete Public Engagement and an Infrastructure Plan. Administration estimates that completing both the public engagement and the Infrastructure Plan including a report that covers an asset management plan, marketing and communications plan, implementation and monitoring plan as well as the financial impact, would cost approximately \$100,000 (class 5 CPMF estimate) and would include full capital and operating budget implications.

Further Financial Considerations -- Corporate Contracts

The City has two separate corporate contracts for the provision of water coolers and bottled water for vending machines and for City run concessions. Where water coolers and potable water co-exist, there is the potential for a nominal reduction in the costs associated with the supply of water coolers. For bottled water, The City obtains revenue from a portion of the sales. If additional water bottle filling stations are added to the existing publicly accessible building infrastructure, there is a potential nominal reduction in revenue to The City.

Risk Assessment

Public perception risks have been identified related to further provision of publicly accessible water. These include the risks of enhancing a service for which a need has not been identified nor an assessment of expected usage. Public demand, including public perception of water quality and cleanliness, the knowledge gap associated with the service, and provision of water fountains in buildings should be assessed prior to implementation.

There may also be liability risk related to health, safety and the environment. Liabilities regarding health and safety must be mitigated by implementing a reasonable maintenance plan to inspect for potential hazards. The potential environmental liability relates to waste and can be largely avoided by designing the drinking water delivery system in a manner that does not permit continual flows or runoffs.

REASON(S) FOR RECOMMENDATION(S):

Through engagement of building operators and a review of 311 requests, it has been determined that there is not an immediate demand for accessible drinking water in City-owned publicly accessible buildings, including Civic Partner buildings. As a result, Administration recommends that Council receive this report for information.

ATTACHMENT(S)

1. Public Building Inventory, Water Fountain Inventory, and Building Access Obtained from Stakeholder Consultation
2. Approaches Used in Other Jurisdictions
3. Detailed Financial Analysis
4. Outline Infrastructure Plan and Estimate to Complete