



AGENDA

SPC ON UTILITIES AND CORPORATE SERVICES

October 10, 2018, 9:30 AM
IN THE COUNCIL CHAMBER
Members

Councillor W. Sutherland, Chair
Councillor P. Demong, Vice-Chair
Councillor D. Colley-Urquhart
Councillor D. Farrell
Councillor J. Gondek
Councillor S. Keating
Councillor J. Magliocca
Mayor N. Nenshi, Ex-Officio

1. CALL TO ORDER
2. OPENING REMARKS
3. CONFIRMATION OF AGENDA
4. CONFIRMATION OF MINUTES
 - 4.1 Minutes of the Regular Meeting of the SPC on Utilities and Corporate Services, 2018 September 12
5. CONSENT AGENDA
 - 5.1 Status of Outstanding Motions and Directions, UCS2018-1167
 - 5.2 Corporate Land Strategy – Information Report, UCS2018-1141
6. POSTPONED REPORTS
(including related/supplemental reports)

None
7. ITEMS FROM OFFICERS, ADMINISTRATION AND COMMITTEES
 - 7.1 Water Customer Assistance Program Pilot, UCS2018-1193

- 7.2 Corporate Environment, Health and Safety (EHS) Performance Report, UCS2018-1143
- 7.3 Regional Water Allocation, UCS2018-1050
- 7.4 Integrated Watershed Management Strategic Meeting – Deferral Request, UCS2018-1171

8. ITEMS DIRECTLY TO COMMITTEE

8.1 REFERRED REPORTS
None

8.2 NOTICE(S) OF MOTION
None

9. URGENT BUSINESS

10. CONFIDENTIAL ITEMS

10.1 ITEMS FROM OFFICERS, ADMINISTRATION AND COMMITTEES

10.1.1 Proposed Method of Disposition (Renfrew) – Ward 09 (1324 Phair AV NE) (MAS), UCS2018-1138
Held confidential pursuant to Sections 23, 24 and 25 of *FOIP*.

10.1.2 Proposed Acquisition (Residual Ward 3 – Sub Area) – Ward 03 (17171 6 ST NE (BG), UCS2018-1139
Held confidential pursuant to Sections 23, 24 and 25 of *FOIP*.

10.1.3 Summary of Green Line Real Property Transactions for the Second Quarter 2018 (JC), UCS2018-1140
Held confidential pursuant to Sections 23, 24 and 25 of *FOIP*.

10.2 URGENT BUSINESS

11. ADJOURNMENT



MINUTES

SPC ON UTILITIES AND CORPORATE SERVICES

**September 12, 2018, 8:30 AM
IN THE COUNCIL CHAMBER**

PRESENT: Councillor W. Sutherland, Chair
Councillor P. Demong, Vice-Chair
Councillor D. Colley-Urquhart
Councillor D. Farrell
Councillor J. Gondek
Councillor S. Keating
Councillor J. Magliocca
*Councillor J. Farkas

ALSO PRESENT: General Manager One Calgary Executive Sponsor S. Dalgleish
General Manager D. Duckworth
Acting City Clerk B. Hilford
Legislative Assistant M. A. Cario
Legislative Assistant T. Rowe

1. CALL TO ORDER

Councillor Sutherland called the Meeting to order at 8:32 a.m.

2. OPENING REMARKS

Councillor Sutherland provided opening remarks.

3. CONFIRMATION OF AGENDA

Moved by Councillor Gondek

That the Agenda for the 2018 September 12 Regular Meeting of the SPC on Utilities and Corporate Services be confirmed.

MOTION CARRIED

4. CONFIRMATION OF MINUTES

4.1 Minutes of the Regular Meeting of the SPC on Utilities and Corporate Services, 2018 July 20

Moved by Councillor Colley-Urquhart

That the Minutes of the Regular Meeting of the SPC on Utilities and Corporate Services held on 2018 July 20, be confirmed.

MOTION CARRIED

5. CONSENT AGENDA

None

6. POSTPONED REPORTS

None

7. ITEMS FROM OFFICERS, ADMINISTRATION AND COMMITTEES

7.1 One Calgary 2019-2022. A Healthy and Green City – Service Plan Previews, UCS2018-1020

Moved by Councillor Magliocca

That pursuant to Section 6(1) of Procedure Bylaw 35M2017, Sections 77(c) and 109, be suspended to allow Members additional time for questions to Administration and debate.

MOTION CARRIED

Stuart Dalglish, General Manager and One Calgary Executive Sponsor provided introductory comments.

Chris Collier, Director of Environment & Safety Management and Nico Bernard, Manager of Strategic Services, Calgary Parks provided an overview of the One Calgary - A Healthy and Green City Citizen Priority.

Public Speakers:

1. Josh Traptow
2. Diane Dalkin
3. Walter Deboni
4. Phil Carlton
5. Colleen McCracken
6. Joe Vipond
7. Mike Bingley
8. Rachel Wade
9. Moraig McCabe
10. Danah Duke
11. Meaghan Brierley
12. Lea Randall
13. Eduard Cubi
14. Alex Mann
15. Jean Blackstock
16. Matt Hammer
17. Bob Morrison

Distributions made with respect to Report UCS2018-1020:

- a PowerPoint presentation entitled "Item 7.1 One Calgary 2019-2022 - A Healthy & Green City Remarks and Revised Process", dated 2018 September 12;

- a document entitled "Calgary climate Hub Additional Comments"; and
- a revised Page 19 of 25 to the Administration Presentation.

Received for the Corporate Record with respect to Report UCS2018-1020:

- speaking notes from Diane Dalkin;
- a PowerPoint presentation entitled "Reader Rock Garden Calgary's Newest National Historic Site", dated 2018 September;
- speaking notes from Phil Carlton;
- speaking notes from Colleen McCracken;
- speaking notes from Joe Vipond;
- speaking notes from Mike Bingley;
- speaking notes from Rachel Wade;
- speaking notes from Moraig McCabe;
- speaking notes from Danah Duke;
- speaking notes from Edward Cubi; and
- speaking notes from Alex Mann.

The following Service Plans were presented by the respective Service Owners:

1. Environmental Management - Christopher Collier, Director of Environment & Safety Management
2. Parks & Open Spaces - Nico Bernard, Manager Strategic Services, Calgary Parks

Committee recessed at 12:03 p.m. and reconvened at 1:05 p.m. with Councillor Sutherland in the Chair.

3. Recreation Opportunities - James McLaughlin, Director of Recreation
4. Stormwater Management - Rob Spackman, Director of Water Resources
5. Urban Forestry - Todd Reichardt, Manager of Parks North and West Region
6. Waste & Recycling - Rick Valdarchi, Director of Waste and Recycling Services

Committee recessed at 3:16 p.m. and reconvened at 3:47 p.m. with Councillor Sutherland in the Chair.

7. Wastewater Collection & Treatment - Andy Hughes, Manager of Bonnybrook Program Delivery, Water Resources
8. Water Treatment & Supply - Nancy Stalker, Manager of Water Quality Services

Moved by Councillor Keating

That with respect to Report UCS2018-1020, the following be approved:

That the SPC on Utilities and Corporate Services receive this report for information.

MOTION CARRIED

8. ITEMS DIRECTLY TO COMMITTEE

8.1 REFERRED REPORTS

None

8.2 NOTICE(S) OF MOTION

None

9. URGENT BUSINESS

None

10. CONFIDENTIAL ITEMS

10.1 ITEMS FROM OFFICERS, ADMINISTRATION AND COMMITTEES

None

10.2 URGENT BUSINESS

None

11. ADJOURNMENT

Moved by Councillor Keating

That this meeting adjourn at 4:27 p.m.

MOTION CARRIED

The next Regular Meeting of the SPC on Utilities and Corporate Services has been scheduled to be held on 2018 October 10 at 9:30 a.m.

CONFIRMED BY COMMITTEE ON

CHAIR

ACTING CITY CLERK

**Utilities & Environmental Protection Report to
SPC on Utilities and Corporate Services
2017 October 10**

**ISC: UNRESTRICTED
UCS2018-1167**

Status of Outstanding Motions and Directions

EXECUTIVE SUMMARY

This report summarises the status of Utilities and Environmental Protection's outstanding Motions and Directions for Standing Policy Committee (SPC) on Utilities and Corporate Services (UCS) as of the end of the third quarter (Q3) 2018.

As directed by Council, all non-time sensitive reports scheduled to come to 2018 September Committee meetings were to be deferred to the appropriate 2018 October Council meeting to accommodate One Calgary service item presentations to Committee and Council.

ADMINISTRATION RECOMMENDATION:

That the Standing Policy Committee on Utilities and Corporate Services receive this report for information.

PREVIOUS COUNCIL DIRECTION / POLICY

On 2007 February 06, Personnel and Accountability Committee approved PAC2007-05 Status of Outstanding Motions and Directions, directing Administration to bring forward as an item of business to each SPC a list of tabled and referred motions and reports for each committee; such lists to be reviewed by each SPC, to be dealt with on a quarterly basis.

On 2018 June 18 Council directed, in an omnibus motion, that all non-time sensitive reports directed to return to Council Committee by Q3 2018 be deferred to the appropriate 2018 October Council Committee meeting (C2018-0755).

BACKGROUND

This report provides a summary of outstanding motions and directions to be addressed at future meetings of this SPC. Summaries are presented on a quarterly basis to ensure accountability and timely responses.

INVESTIGATION: ALTERNATIVES AND ANALYSIS

Not applicable.

Stakeholder Engagement, Research and Communication

Not applicable.

Strategic Alignment

This report is in alignment with the mandate of the SPC on UCS.

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Status of Outstanding Motions and Directions

Social, Environmental, Economic (External)

Not applicable.

Financial Capacity

Current and Future Operating Budget:

There are no operating budget implications for this status report.

Current and Future Capital Budget:

There are no capital budget implications for this status report.

Risk Assessment

This report tracks outstanding motions and directions from the SPC on UCS to Administration. No specific risks are associated with this report. Any risks associated with a specific direction or motion will be dealt with in the context of the report on that direction or motion.

REASON(S) FOR RECOMMENDATION(S):

This report assists the SPC on UCS to proactively track and manage its work.

ATTACHMENT(S)

1. Status of Outstanding Motions and Directions

Status of Outstanding Motions and Directions

ITEM	DATE OF REQUEST	APPROVAL	SUBJECT	MEETING DATE
Annual Stormwater Strategy update	2006 January 16	UE2005-62	Administration to report back to the SPC on Utilities and Corporate Services with yearly updates on progress in meeting the goals of the Stormwater Management Strategy.	2019 March
Annual Water Efficiency Plan update	2005 December 12	UE2005-55	Administration to report back to the SPC on Utilities and Corporate Services annually with updates on progress towards "30 in 30" goal.	2019 March
Flood Resiliency and Mitigation annual report	2014 December 02	PFC2015-0777	Administration to report back to the SPC on Utilities and Corporate Services annually on progress related to the recommendations from the Expert Management Panel on River Flood Mitigation. (Expert panel recommendation 6f).	2019 March
Corporate Environment, Health & Safety Performance Annual Report	2009 March 25	UE2009-07	Administration to report to SPC on Utilities and Corporate Services semi-annually on Corporate environment and safety performance, including audit results.	2018 October
Water Utility Billing Adjustment Process and Wastewater Rate Report	2018 February 14	UCS2018-0091	Administration to further investigate options for appeal mechanisms, and report back to Council through the SPC on Utilities and Corporate Services with a recommendation by Q4 2018.	2018 Q4
Water Utility Billing Adjustment Process and Wastewater Rate Report	2018 February 26	UCS2018-0091	Administration to identify the requirements for an assistance program for low income customers and bring to Council for consideration in 2018 as part of the Utility's 2019-2022 business planning	2018 October

Status of Outstanding Motions and Directions Continued

ITEM	DATE OF REQUEST	APPROVAL	SUBJECT	MEETING DATE
Waste & Recycling Services Outlook for 2018 to 2025	2018 April 18	UCS2018-0153	Administration to undertake a scoping report that investigates options and unintended consequences for significantly reducing waste, “avoidable” plastic waste, and single-use items, engage citizens and waste generators, and the costs of doing this work, and report back to the SPC on Utilities and Corporate Services with a scoping report no later than Q2 2019.	2019 Q2
Pay-as-you-throw Program for Residential Black Cart Collection	2018 June 13	UCS2018-0656	Administration to return with a financial model including an option, for tag-a-bag only, to return to Council through the SPC on Utilities and Corporate Services, no later than Q1 2019.	2019 Q1

Deputy City Manager's Office Report to
SPC on Utilities and Corporate Services
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ISC: UNRESTRICTED
UCS2018-1141

Corporate Land Strategy – Information Report

EXECUTIVE SUMMARY

The City of Calgary is the owner of over 8300 parcels of land. These parcels support the delivery of City services to business and citizens in the form of parks and natural spaces, community-focused services, affordable housing, administration buildings, public works and utility infrastructure. These lands are also an asset for The City, to be managed well in fulfilling its operational needs and leveraged to the benefit all Calgarians. This report provides information about work being led by Real Estate & Development Services (RE&DS) to define a strategic, portfolio-based approach to managing The City's land assets. The purpose is to support RE&DS leadership role in the Corporation to manage public land well and deliver its Real Estate and Land Development & Sales lines of service. The benefits will be more sustainable business operations and decision-making processes that maximize the overarching and long-term value of municipal lands.

Administration is proposing to develop a Corporate Land Strategy for Council approval in Q1 2019. Corresponding RE&DS-specific program strategies will also be delivered as chapters through Q4 2019. The chapters will be aligned to the Corporate Land Strategy and provide clarity on roles and responsibilities, procedures and tactics for RE&DS to deliver its real estate and land development services in a comprehensive, sustainable and customer-focussed manner.

ADMINISTRATION RECOMMENDATION:

The SPC on Utilities and Corporate Services recommend that Council receive this report for information.

PREVIOUS COUNCIL DIRECTION / POLICY

None.

BACKGROUND

Real Estate & Development Services (RE&DS) is a City business unit created in 2016 by the merger of the Office of Land Servicing & Housing, and the Land Division of Corporate Properties & Buildings. RE&DS is responsible to deliver two lines of service for the corporation:

- Real Estate Services
 - Real estate transactions (land acquisitions, land sales, leasing), and
 - Land Administration (land management, policies and standards, land asset information, circulations coordination and advisory services).
- Land Development & Sales Services
 - Service and sell industrial lots to businesses that support economic development and diversification, and;
 - Strategic redevelopment of City-owned lands to support community building and city shaping objectives, including transit oriented development (TOD), mixed use development, and surplus school sites.

RE&DS is largely a self-funded business unit, responsible for managing the financial health and sustainability of its program services and two supporting reserves. The Revolving Fund for General Land Purchases (Revolving Fund) is used to acquire ad hoc land requests for Business

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Corporate Land Strategy - Information Report

Units across the corporation. These opportunities can be both significant in value and strategic positioning for The City. The Real Estate Services Reserve is used to fund the development of industrial parks, TOD and other strategic redevelopment sites.

The costs to deliver RE&DS real estate activities are recovered from revenues generated through land transactions (acquisition fees from capital projects, sales commissions on surplus lands) and fees for services (encroachment fees, land title services). Costs to acquire, plan, service and sell RE&DS development projects are fully capitalized within each project and recovered when serviced lots are sold on the open market to builders and developers. RE&DS is therefore accountable to ensure its land development programs generate net positive returns to the Real Estate Services Reserve, which in turn are reinvested to future development projects.

As a newly formed business unit, RE&DS has adopted a culture of continuous learning and improvement to identify and refine work processes to improve efficiencies and deliver better services to its customers. As part of this work RE&DS is refining processes to manage The City's land assets and deliver its services more efficiently, in a sustainable financial model.

INVESTIGATION: ALTERNATIVES AND ANALYSIS

Appropriately located and sized land parcels are essential to allow The City to provide public infrastructure and deliver its services to Calgarians. Over time, The City has acquired significant land holdings, currently owning over 8300 titled parcels (~33,600 acres). The Corporate Land Management Framework (Framework) was approved in 2015 to provide a comprehensive approach to managing these land assets. Administration has updated its inventory of The City's holdings and Business Units land requirements. The Framework's land rationalization standard is supporting Business Units to pro-actively review their stewarded lands, confirm operational needs, and identify parcels no longer required for operations. These efforts have generated an inventory of surplus land parcels. This provides the opportunity to take a portfolio-perspective to derive highest value by leveraging these assets for other City purposes and selling parcels that will provide highest returns. Similarly, strategic consideration of RE&DS industrial, TOD and redevelopment portfolios will help ensure that The City's land development projects are being prioritized and delivered to meet market needs, support Calgary's economic development, and to achieve broader community building and city-shaping objectives.

In this regard, Administration, led by RE&DS, is undertaking a review of current issues, opportunities and challenges across its service programs. It will use learnings to define a desirable future state to strategically manage land and deliver its services. This includes a review of public land agency best practices, formalizing principles to support effective decision-making, and prioritizing actions to move in that direction. RE&DS is also developing a stakeholder engagement plan for its own delivery teams, and for business unit partners that steward land or influence corporate outcomes on land.

A strategic, portfolio-based approach to managing and leveraging land assets will:

- Articulate a clear position on the value of land as a resource to The City;
- Provide a portfolio-based (cradle to grave) framework for The City to actively steward its land assets and leverage them to deliver public planning outcomes and triple bottom line (TBL) objectives;

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Corporate Land Strategy - Information Report

- Prioritize and develop a long-term plan to ensure the financial sustainability of the RE&DS self-funded services and programs;
- Support the financial sustainability and predictability of the Revolving Fund and Real Estate Services Reserve;
- Create a collaborative environment within Administration to review and leverage land's highest potential to deliver other corporate objectives (including affordable housing units, community building and redevelopment, economic development and business diversification, fund capital infrastructure, etc.);
- Clarify Administration's roles and responsibilities to strategically manage land;
- Clarify RE&DS roles and responsibilities and align programs to deliver the strategy; and,
- Improve land information management processes, parcel data, operating and maintenance costs, market knowledge and customer awareness.

Administration is proposing a two-part series of deliverables. First, a Corporate Land Strategy (Strategy) will be developed to confirm The City's overarching public commitment to managing its land, founded on the Guiding Principles for good land management practice (Attachment 1). It will provide the overall direction and road map for how The City will manage land interests within a sustainable, self-funding model, and how land assets can be leveraged to deliver broader corporate objectives that provide value to citizens. The Strategy will provide a clear City statement on the value of public land, land management expectations, transparency on decision-making and priorities, roles and responsibilities, governance, and direction to address competing corporate objectives. It may also include program-specific directions to clarify The City's commitment in providing its land services to both public customers and partnering agencies that request land to deliver their services. It is proposed the Strategy will be brought forward to Council through SPC on Utilities and Corporate Services in Q1 2019.

Secondly, Program strategies will be developed as "chapters" to provide guidance to the implementers within Administration. They will be aligned with and complement the Corporate Land Strategy, providing guidelines, processes and tactics to deliver RE&DS programs and projects. Though specific to RE&DS, these strategies will be developed in consultation with business unit partners and customers of these services. These Program chapters will not form part of the Council approved Corporate Land Strategy, but be approved as administrative documents by the Administrative Leadership Team (ALT).

Existing program-level strategy chapters and frameworks to be reviewed and aligned include:

- *Corporate Land Management Framework* - Administration of City-owned land (approved by ALT)
- *2013-22 Industrial Land Strategy* – Development of City-owned industrial land (Council approved in 2013).
- Not-for-Profit Land Sales framework – for transacting land at below market value or a nominal cost (as proposed in UCS2018-0912).

New chapters will be created to support remaining program areas. Identified chapters include:

- TOD Implementation Strategy - Development and sales of City-owned station lands
- Surplus Land Sales Strategy – Process for identifying, valuating and prioritizing the sale of land not required by The City

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Corporate Land Strategy - Information Report

- Affordable Housing Land Strategy – Process for making City-owned land available to affordable housing providers.
- Infill redevelopment strategy – Guidance for the redevelopment and sale of larger City-owned sites, including surplus school sites
- Leasing Strategy – Guidance for how and when The City will lease public land
- Strategy to address Unsolicited bids to purchase City-owned land

Completion of all program strategies is planned to be completed by Q4 2019.

Stakeholder Engagement, Research and Communication

Work will include a review of other public land jurisdictions, with specific attention to how land is managed and positioned as a corporate asset. Administration will build on those learnings and apply appropriately within The City and Alberta legislative context.

A major component of this work will be to engage key internal stakeholders to inform on the rationale and benefits of a comprehensive land management strategy, and to consult on how Administration can deliver this new approach. Stakeholder groups will include business unit partners in the land stewards' network (Corporate Land Committee/Corporate Land Administration Team) and business units influencing the delivery of corporate outcomes on City land.

Engagement has also been ongoing with managers of similar strategic portfolios at The City to ensure alignment and consistency of direction, and to differentiate roles and responsibilities. This includes the Asset Management program, Corporate Coordinated Operations & Maintenance program (CCOM) and Integrated Civic Facilities Project (ICFP).

The work to develop the Corporate Land Strategy is planned as an internal review to create a principled position on the value of public land to The City and how it will position its resources to best deliver its services. As the Program-specific chapters are developed, external stakeholders will be engaged, as the ultimate customers of lands sold by The City for economic development, TOD and strategic redevelopment.

Strategic Alignment

This work is being informed by and aligned with existing corporate initiatives and strategic directions, including:

One Calgary Service Plans and Budgets process - identifies RE&DS as the service owner to deliver the following two lines of service for the corporation: Real Estate Services and Land Development & Sales Services.

Leadership Strategic Plan: Contract with Council (2014) – this work supports Administration's commitment to strengthen the Corporation's financial position addressing long-term financial needs, maximizing return on municipal land investments, and rationalizing and divesting of municipal land.

Municipal Development Plan (2009) – the strategic management of The City's land assets supports the delivery of numerous goals of the Municipal Development Plan, including supporting a prosperous economy, modelling a more compact development form, creating great communities, and supporting integrated decision-making and investments.

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Corporate Land Strategy - Information Report

Real Property Bylaw (52M2009) – The review, policies and strategies will be developed in context with the purpose and authority of this Bylaw and may inform further amendments.

Social, Environmental, Economic (External)

There are no social, environmental and economic impacts resulting from this report for information.

Financial Capacity

Current and Future Operating Budget:

Resources to complete this work are included in RE&DS existing operating budget Program 488.

Current and Future Capital Budget:

Consulting support required to supplement the project will be funded through existing Corporate Land Management Framework (Program 698).

Risk Assessment

There is a risk that if a more strategic, portfolio-based approach is not developed, City-owned land will be used in reactive ways and not recognize its full and long-term value to the community and Corporation. The Corporate Land Strategy will establish The City's commitment to strategic stewardship of its land assets and the provision of good land management practices. It will also help RE&DS align its program delivery to achieve better outcomes. The proposed Strategy and aligned Program chapters will also position Administration to deal with the speed, volume and growing complexity of land decisions and transactions, and support better corporate decision-making and service delivery.

REASON(S) FOR RECOMMENDATION(S):

This report provides an update to Council of Administration's review of current land management practices and processes, and the development of a strategic, portfolio-based approach to managing City land. It communicates Administration's intent to bring forward a Corporate Land Strategy for Council consideration and approval in Q1 2019.

ATTACHMENT(S)

1. Attachment 1 - Corporate Land Strategy – Guiding Principles

Corporate Land Strategy - Guiding Principles

Guiding Principles

- Land is a valued public resource that is managed well by The City.
- Land is leveraged to support the delivery of public services and to maximize value for the Corporation and citizens.
- RE&DS delivers professional real estate and land development & sales services to the corporation. It provides advice and makes real estate decisions on behalf of the corporation.
- RE&DS is a self-funded business unit. The financial success of its programs/projects and sustainability of its Reserves are paramount outcomes of delivering its services.
- RE&DS will apply a “portfolio” approach to managing City lands, its programs, and its two Reserves.
- RE&DS is committed to “One City/One Voice.” It leverages its staff’s real estate expertise and land availability to achieve the best outcomes where both The City and community benefit.
- RE&DS understands its customers’ needs and provides them with the best land and service solutions.
- RE&DS maintains the Corporation’s property information and market data and applies rigorous analysis to inform its decisions and recommendations.
- RE&DS is a continually improving real estate and land development organization.

**Utilities & Environmental Protection Report to
SPC on Utilities and Corporate Services
2018 October 10**

**ISC: UNRESTRICTED
UCS2018-1193**

Water Customer Assistance Program Pilot

EXECUTIVE SUMMARY

The City's Water Utility strongly adheres to the mandate of protecting public health through the provision of safe and reliable water, wastewater and stormwater services. In addition to this mandate, it is important that water is accessible and affordable to all Calgarians. The Water Utility's practice of disconnecting essential water services in cases of significant non-payment does not align with this mandate; therefore, a temporary moratorium was placed on this practice in September 2017.

Exploration of alternative solutions for non-paying, low-income customers has been undertaken. Provincial and community social service programs are in place for customers experiencing a financial crisis, assisting with utility bill arrears under certain circumstances; however, these programs do not provide proactive or long-term assistance for water, wastewater, and stormwater bills for low-income citizens. To better understand and address this chronic issue, this report proposes a Water Customer Assistance Program (WCAP) pilot.

The proposed WCAP pilot is an innovative, multi-faceted approach consistent with current practices in the water utility industry. The main objective of this pilot is to test an assistance program for low-income customers targeting those at greatest risk of losing essential water service. This pilot will help the Water Utility learn more about Calgary's low-income population and their bill payment experience, as well as provide options for meaningful assistance. Water utility customers with accounts in arrears over 90 days will be invited to participate in the pilot. To be eligible they must seek appropriate provincial and community social service agency support for arrears payment assistance; meet Fair Entry's residency and low-income criteria; and reside in the home. Through the WCAP pilot, eligible customers will receive assistance to reduce the variable consumption portion of their bill through water efficiency support, followed by a bill adjustment to offset a portion of their fixed water, wastewater and stormwater service charges. These measures combined could reduce the monthly bill by an estimated \$50 to \$86 per month.

The pilot will measure participation, customer benefits and feedback, utility costs and benefits, and overall program performance to inform next steps for Council consideration. Pending Council approval, the WCAP pilot is scheduled to start in Q2 2019 and conclude in early 2021, providing a total estimated cost assistance of up to \$2.8 million, which can be accommodated within the indicative rates previously approved by Council.

ADMINISTRATION RECOMMENDATION:

That the Standing Policy Committee on Utilities and Corporate Services recommend that Council Direct Administration to:

1. Proceed with a Water Customer Assistance Program pilot as proposed, and report back to Council no later than end of 2020 on results and learnings from the pilot and recommendation for next steps.

**Utilities & Environmental Protection Report to
SPC on Utilities and Corporate Services
2018 October 10**

**ISC: UNRESTRICTED
UCS2018-1193**

Water Customer Assistance Program Pilot

PREVIOUS COUNCIL DIRECTION / POLICY

2018 February 26, UCS2018-0091 Council directed Administration to:

“Identify the requirements for an assistance program for low-income customers and bring to Council for consideration in 2018 as part of the Utility’s 2019-2022 business planning.”

BACKGROUND

Challenges paying for water utility services can be the result of many factors including job loss, change in family status, and a limited fixed income. Participation in Provincial and community social service agency programs indicate that some Calgarians are struggling to pay for their water services. In 2015, there were 139,540 Calgarians living under the Low Income Cut Off Before Tax (LICO-BT). From April 2017 to March 2018 in the Calgary region, Alberta Works-Income Support issued utility arrears payment assistance 133 times per month on average. The United Way Basic Needs Fund provides financial support to households through several social service agencies. In 2017 there were approximately 2,000 requests for the fund, of which 422 (20%) were for utilities. While these programs provide emergency arrears payment support, they do not address chronic issues that low-income customers face in paying for essential services like water.

The Water Utility delivers quality water, wastewater and stormwater services to customers every day. In providing this service, the Water Utility must also balance financial sustainability, water conservation and equitable customer service. It is the customer’s responsibility to pay for the water services they receive. Water service disconnection is a tool used to encourage bill payment in many municipalities across North America; however, disconnecting low-income Calgarians challenges The City’s mandate to protect public health. To minimize potential health and safety risks, the Water Utility implemented a temporary moratorium on water disconnections due to non-payment in 2017 pending further research and recommendations on a Water Customer Assistance Program.

Approximately 2,300 City of Calgary residential water customers (less than 1% of total residential customer accounts) currently have unpaid arrears over 90 days and would be at risk of water service disconnection if the temporary moratorium was not in place. While it is common to have a portion of customer accounts behind on their bills, the total has increased by approximately 14% from end of 2015 to August 30, 2018. Billing information does not provide insight into the exact reasons a customer may be in arrears.

INVESTIGATION: ALTERNATIVES AND ANALYSIS

In 2016, the United States Environmental Protection Agency published a summary of customer assistance programs commonly used by municipalities in North America. The most common program type is a bill adjustment, followed by flexible terms, temporary assistance, water efficiency support and a lifeline or adjusted rate. Based on this research and discussions with North American municipalities who have experience implementing assistance programs, the most successful programs include a combination of program types. This is the approach The City recommends taking for the pilot program.

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**ISC: UNRESTRICTED
UCS2018-1193**

Water Customer Assistance Program Pilot

The proposed WCAP pilot is guided by the principle of a shared responsibility between the customer, the Province, community social service agencies and The City. The pilot will provide assistance in two key areas: water efficiency support to reduce consumption and cost; and bill adjustments to partially offset basic service charges.

The City has had water efficiency programming in place since the Water Efficiency Plan was implemented in 2003; however, many low-income customers may still be using inefficient, high flow fixtures that further contribute to higher water use and cost. One of the key programs that made a significant contribution to water efficiency was the Toilet Rebate Program. This program provided \$5 million in rebates to customers over a 14-year period to incentivise installation of low flow toilets (\$50 per toilet), resulting in an estimated 14.7 billion litres of water saved since 2003. It is acknowledged that this type of program would have been difficult to access for low-income customers if they were unable to cover the remainder of the cost of the new toilet.

The City will invite customers with arrears greater than 90 days to participate in the pilot. Those who choose to apply will undergo the low income and residency screening provided by Fair Entry. The City's Fair Entry program is a one-point application process for low-income Calgarians applying for all subsidized City programs. Utilizing Fair Entry's established intake system provides an efficient and simple one window entry point for pilot participants and ensures alignment with other City of Calgary assistance programs.

Eligibility for assistance through the WCAP pilot is dependent on three key factors:

- Customers seek appropriate Provincial and community social service agency supports to address the arrears on their account. Customers will be referred to these resources prior to The City providing assistance.
- Participants meet Fair Entry's residency and LICO-BT criteria.
- Participants can be a home owner or a renter, but must reside in the home and pay a water utility bill directly.

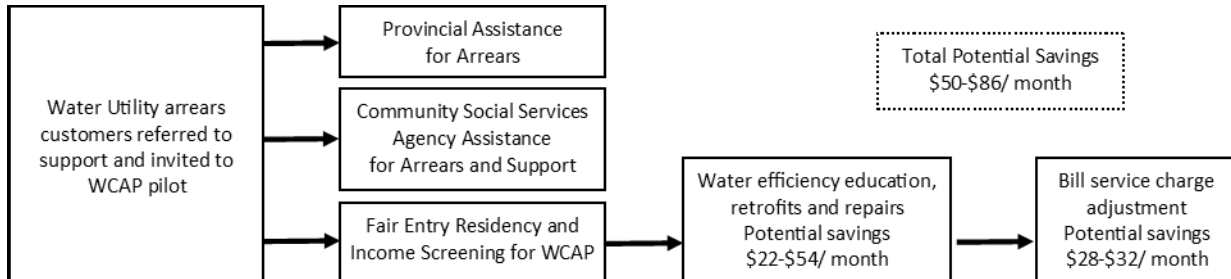
Upon satisfaction of the above criteria, The City will begin by providing water efficiency education, as well as detecting and repairing leaks, and replacing water wasting fixtures in the bathroom. This service will be delivered through a third-party service provider or partner. These improvements will target a reduction in volumetric water and wastewater charges on the bill. Such measures have proven to reduce the water use of a typical household with water wasting fixtures by an average of 46%, with an estimated range of 7-17 m³ of water savings per month. This corresponds to \$22 to \$54 bill savings per month (based on 2018 water and wastewater rates), depending on water use prior to participation and number of people in the household.

Once a customer is participating in the water efficiency portion of the program, they will be eligible for a monthly bill adjustment to reduce the fixed water service charges on their utility bill. For this pilot, each household will receive a monthly bill adjustment for a total of six months. It is estimated that this could range from \$28-\$32 per month. The figure below depicts the general participant journey through the pilot program.

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Water Customer Assistance Program Pilot



There is no industry standard for a water affordability threshold for low-income customers, and municipalities in North America define income eligibility, affordability thresholds and bill adjustment amounts in a variety of ways. Based on knowledge of water use in inefficient homes, Calgarians living under the LICO-BT pay on average 3.85% of their income toward water, wastewater and stormwater services. For the purposes of this pilot, a 2% of income target for water services has been applied, as guided by research, to the LICO- BT income thresholds. To achieve this target, a combination of bill savings from water efficiency and the bill adjustment is required and will result in an approximate \$50-\$86 reduction to the monthly utility bill. This represents a 50% reduction, on average, to the total monthly water utility bill for low-income customers.

It is estimated that the WCAP pilot will assist up to 2,500 customers with active water arrears accounts. Participation numbers are estimated based on current customers in arrears greater than 90 days, along with anticipated new arrears over the duration of the pilot. An estimated \$2.35 million investment in this pilot will go towards water efficiency education, fixture retrofits and leak repair services with approximately \$450,000 to cover the adjustments to the fixed basic service charge portion of the customers' bills. City administrative costs to design and administer the program will be accommodated within existing resourcing.

The WCAP pilot will allow key unknowns (e.g. customer demand and level of participation) to be determined, and assumptions and program processes to be tested enabling the design, cost and benefits, as well as need for a full program to be accurately determined.

Stakeholder Engagement, Research and Communication

Development of this WCAP pilot was supported by a literature review and investigation of other North American water utilities with customer assistance programs. This research confirmed that low-income customers across North America are struggling to meet bill payments as rates rise. This has become a leading issue in the industry. However, it is widely accepted that customer assistance programs must be customized to meet the needs of the diverse requirements of each municipality and the demographics of their customers.

The Water Utility has worked closely with Fair Entry to explore integration of the WCAP. In addition, all City partners of Fair Entry have been informed of the proposed pilot and possible program alignments have been identified. Also, discussions with the Provincial service Alberta Supports, Provincial program Alberta Works- Income Support and community social service

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Water Customer Assistance Program Pilot

agencies, namely CUPS and the Distress Centre, assisted in the needs assessment of the pilot and identified WCAP alignments.

Calgarians have shown support for programs like the proposed WCAP. According to the Citizen Perspectives Survey reported in November 2017, 77 percent of Calgarians support the idea of a customer assistance program that provides financial supports for those who are struggling to pay their water utility bills. Of those who support a WCAP, 53 percent agree that they would pay more for their water to help others struggling with their bills.

Feedback from pilot program participants will be gathered to better understand their experience and impact of the program. Fair Entry will also assist in the estimation of potential participation of an open entry customer assistance program by asking optional questions of Calgarians applying for other Fair Entry programs. This knowledge will be used to inform recommendations for next steps following the pilot.

Strategic Alignment

The proposed WCAP pilot has direct alignments to One Calgary Council Directives, namely A Prosperous City, A City of Safe and Inspiring Neighbourhoods, A Healthy and Green City and A Well Run City.

Enough for All: Calgary's Poverty Reduction Strategy, jointly led by four partners (The City of Calgary, United Way of Calgary, Vibrant Communities Calgary, and Momentum) expressly identifies a link to utility bills. "Basic needs programs provide direct support to families and individuals in economic emergencies — helping them pay their utility bills, for example, or buy groceries. Programs and initiatives that cultivate community capacity to meet basic needs are key to a sustainable reduction in poverty."

Social, Environmental, Economic (External)

Protecting public health through water and wastewater services is the mandate of Calgary's Water Utility. Providing basic needs services keeps both individuals and communities healthy and clean. Implementing a pilot project will enable The City to fulfill its social responsibility, and provide quality customer focused service to low-income Calgarians at potential risk of future service disconnection.

The water efficiency measures in the pilot will contribute an estimated 322 million liters of water savings during the pilot. It is further anticipated that the water savings will provide long term benefit to both the pilot participants and The City's Water Efficiency Plan, contributing an estimated 4.2 billion liters for the remainder of the Plan (until 2033).

Financial Capacity

Current and Future Operating Budget:

If the pilot is approved by Council, planning costs in 2018 will be accommodated within current budgets. The costs to deliver the WCAP pilot can be accommodated within the Council approved indicative rates for 2019-2022.

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Water Customer Assistance Program Pilot

Current and Future Capital Budget:

There are no implications to The City's capital budget associated with this report.

Risk Assessment

A WCAP pilot will provide assistance for qualifying low-income Calgarians who pay for water directly through their water utility bill and who have arrears on their account greater than 90 days.

The WCAP pilot should increase the number of water customers able to pay their bill, minimizing the number of customers with accumulating arrears and in disconnection status. This will reduce public health and safety risks, and disconnection costs to the Water Utility. The proposed pilot will improve the Water Utility's ability to accurately understand the low-income population in Calgary and their needs.

The risk of not implementing the WCAP pilot is that the Water Utility returns to disconnecting water services to encourage bill payment without the ability to differentiate and support low-income customers. This may result in negative impacts to health and safety, and reputational harm to The City of Calgary.

REASON(S) FOR RECOMMENDATION(S):

The Water Customer Assistance Program allows the Water Utility to pilot a program that will support the continuity of essential water services for low-income customers in need of assistance through meaningful support and resources.

ATTACHMENT(S)

No Attachments

**Utilities & Environmental Protection Report to
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Corporate Environment, Health and Safety (EHS) Performance Report

EXECUTIVE SUMMARY

The semi-annual Corporate Environment, Health & Safety (EHS) Performance Report is prepared by Environmental & Safety Management (ESM) in its capacity of providing governance and oversight for The City of Calgary's (The City's) EHS management systems and demonstrates The City's accountability for these responsibilities.

The City's performance on Total Recordable Injury Frequency (TRIF) and Lost Time Claim Frequency (LTCF) has declined since 2017. The Corporation's TRIF and LTCF at the end of 2018 Q2 were 12.5 and 5.9 respectively, exceeding both Action Plan targets. Although some success has been achieved on proactive measures, the actions being taken have not yet turned the curve on these headline measures. Historically, The City has performed better than comparable Canadian cities with respect to lost time incident frequency. However, in 2017, The City's performance was slightly lower than comparable cities.

There are a number of strategic and tactical actions underway to improve safety performance. These include, but are not limited to, updating the Corporate Safety Strategy for 2019 – 2022; improving the health and safety competence of City leaders; implementing enhanced personal protective equipment practices; and completing Job Demands Analyses for high-risk positions.

The number of days lost and total lost time claim costs due to work-related incidents are forecast to be higher in 2018 than 2017 due to decreased performance on lost time incidents, accommodation, and on-time reporting to the Workers' Compensation Board. Lost time claim costs also directly impact WCB premiums for future years. Recent legislative changes will put further pressure on The City's to accommodate workers in a timely manner. Human Resources is developing an Accommodation Strategy to support The Corporation in providing modified work to returning employees to support better performance and manage costs.

As part of the provincial Partnerships in Injury Prevention program, The City will undergo an external audit of its OHS management system in 2019. By maintaining a Certificate of Recognition (COR), The City is entitled a five per cent refund on its Workers' Compensation Board premiums.

The City's nine ISO 14001-registered business units have now successfully transitioned to the updated ISO 14001:2015 standard for environmental management systems. Throughout 2018, ESM has been collaborating with its internal partners to develop various elements of the corporate-wide Environmental Management System (EMS).

Many of The City's environmental programs are meeting targets. In cases where targets are not yet being met, performance has generally 'turned the curve' and is improving.

ADMINISTRATION RECOMMENDATION:

That the SPC on Utilities and Corporate Services receive this report for information.

PREVIOUS COUNCIL DIRECTION / POLICY

On 2009 March 25, the SPC on Utilities and Environment directed Administration to report semi-annually to Committee on corporate environment and safety performance, including audit results (UE2009-07).

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Corporate Environment, Health and Safety (EHS) Performance Report

BACKGROUND

The City's Action Plan for 2015 – 2018 has three priority areas which drive actions and outcomes related to corporate environmental and safety management: a well-run city, a healthy and green city, and a city of inspiring neighbourhoods. The City's Code of Conduct includes The City of Calgary's Environmental Policy and Occupational Health & Safety Policy. These policies establish a set of commitments outlining The City's intentions to manage environmental and safety risks, fulfil compliance obligations, and continually improve performance.

The City's environmental and safety management systems support The City in fulfilling its policy commitments. Using a results-based accountability (RBA) approach encourages collaboration and evidence-based decision making to improve performance and manage risks. The RBA approach also provides a framework to demonstrate how The Corporation's performance contributes to higher level results and Council Priorities.

The previous Corporate EHS Performance Report (UCS2018-0282), delivered on 2018 April 18, provided information on corporate EHS performance for 2017. Challenges with injury prevention and incident management were reported, along with planned actions to improve understanding of workplace hazards, health and safety competence, and accommodation of employees returning to work after a work-related injury.

INVESTIGATION: ALTERNATIVES AND ANALYSIS

The Corporate EHS Performance Report is attached. It includes detailed information on corporate EHS management and performance, with a focus on 2018 Q1 and Q2.

Occupational Health and Safety Management and Performance

The City's performance on Total Recordable Injury Frequency (TRIF) and Lost Time Claim Frequency (LTCF) has declined since 2017. TRIF increased from 10.5 in 2017 to 12.5 at the end of 2018 Q2, exceeding the Action Plan target of 8.8 (W.PM16). LTCF increased from 5.0 in 2017 to 5.9 at the end of 2018 Q2, exceeding the Action Plan target of 3.4 (W.PM19). Although some success has been achieved on proactive measures, the actions being taken have not yet turned the curve on headline measures such as TRIF and LTCF. Historically, The City has performed better than comparable Canadian cities with respect to lost time incident frequency. However, in 2017, The City's performance was slightly lower than comparable cities.

Three incidents meeting Alberta Occupational Health and Safety's definition of 'serious' occurred in the first half of 2018. These incidents resulted in two Stop Work Orders and two Demands from the regulator. The City has responded to the Demands and has implemented corrective actions. An investigation is on-going in response to the Stop Work Orders.

A number of strategic and tactical actions are being implemented corporately and by business units across The City to improve safety performance. These include, but are not limited to, an update to the Corporate Safety Strategy; development of a City-specific Leadership for Safety Excellence course; improvements to personal protective equipment; health, safety and wellness campaigns; and advanced incident investigation training for Safety Advisors.

The number of days lost and total lost time claim costs due to work-related incidents are forecast to be higher in 2018 than 2017 due to reduced performance on lost time incidents, accommodation, and on-time reporting to the Workers' Compensation Board. Recent legislative changes will put further pressure on The City's to accommodate workers in a timely manner.

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Human Resources is continuing to develop an Accommodation Strategy to support The Corporation in providing modified work to returning employees within the new legislated timeframe.

As part of the provincial Partnerships in Injury Prevention program, The City will undergo an external audit of its OHS management system in 2019. Following a successful audit, The City will be required to perform internal maintenance audits and/or submit an audit action plan in each of the subsequent two years. The City must maintain a COR to continue receiving a five per cent refund on its Workers' Compensation Board premiums (approximately \$850,000 per year).

Corporate Environmental Management and Performance

Many of The City's environmental programs are meeting targets. In cases where targets are not yet being met, performance has generally 'turned the curve' and is improving. For example, although The Corporation may not meet its 2020 target for reducing greenhouse gas emissions, emissions have been decreasing since 2013.

Achievements on environmental programs and initiatives include, but are not limited to, a Beet 55 brine trial to reduce road salt use; greenhouse gas emission reduction through organic waste diversion; a new portfolio-based approach to understanding risk and liability for contaminated sites; and continued success on the environmentally-friendly goat-grazing program to manage invasive weed species.

In the first half of 2018, compliance with legislated substance release reporting timelines decreased slightly from 2017. The roll-out of the updated Corporate Substance Release Reporting Program in October 2018 is expected to improve compliance with reporting requirements over time.

With respect to business unit-level environmental management systems, all nine of The City's ISO14001-registered business units have now successfully transitioned to the updated ISO 14001:2015 standard. Registered business units have made substantial improvements to their management systems to meet the new (and higher) standard.

Throughout 2018, ESM has been collaborating with its internal partners to develop various elements of the corporate-wide Environmental Management System (EMS). A process-oriented set of EMS standards were drafted in early 2018, aligning with the key concepts of the ISO 14001 standard for environmental management systems and integrating with existing corporate systems and processes. A systematic approach to corporate environmental management will improve The City's ability to demonstrate accountability and due diligence and improve performance.

Stakeholder Engagement, Research and Communication

Key partners and internal customers are engaged throughout the year to support the design, implementation, and improvement of The City's systems, programs, and actions that contribute to EHS performance, compliance, and risk management.

Strategic Alignment

This report supports Council's priority of a well-run city and aligns to the following actions of Action Plan 2015 – 2018:

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Corporate Environment, Health and Safety (EHS) Performance Report

- W2.3: Measure, benchmark, and report our performance to drive continuous improvement and support decision making.
- W6.2: Use tools such as management systems and auditing to minimize environmental, health and safety (EHS) risks.
- W8.2: Collaborate across the organization to deliver risk based programs and services that align with budgets and resources.

Social, Environmental, Economic (External)

The semi-annual Corporate EHS Performance Report demonstrates The City's accountability for its environmental and safety performance in support of Council's priorities of a well-run city, a healthy and green city, and a city of inspiring neighbourhoods. Corporate performance related to health and safety supports The City of Calgary's reputation as a healthy, safe, and desirable place to work.

Financial Capacity

Current and Future Operating Budget:

The City's performance on lost time claims, accommodation, and WCB reporting is contributing to increased lost time claim costs. Lost time claim costs directly impact WCB premiums for future years. Premiums were \$20.7 million in 2017 and are forecast to rise above \$21.0 million in 2018.

Current and Future Capital Budget:

Capital budget planning and decision-making for these and other items is on-going through One Calgary.

Risk Assessment

There are risks associated with recent and upcoming legislative and policy changes including some uncertainty regarding implementation requirements. The City is actively working with provincial and federal regulators to influence and clarify expectations related to Occupational Health and Safety legislation, Bill C-68 *An Act to amend The Fisheries Act and other Acts*, Alberta's *Remediation Regulation*, and Alberta's *Act to Enable Clean Energy Improvements*.

There are also increased legal risks associated with The City's reduced performance on regulatory reporting (i.e. WCB reporting and substance release reporting). The City has planned actions to improve performance in this area.

Corporate EHS Risk are managed and communicated in accordance with the corporate Integrated Risk Management (IRM) model. The Corporate EHS Risk Register provides EHS-specific subject matter input to the Corporate Principal Risks, which are regularly reported to Audit Committee.

REASON(S) FOR RECOMMENDATION(S):

This report provides the Committee and Council with information on corporate environmental and safety management and performance in accordance with Council's direction (UE2009-07).

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Corporate Environment, Health and Safety (EHS) Performance Report

ATTACHMENT(S)

1. Attachment 1 – Corporate Environment, Health and Safety (EHS) Performance Report



Photo credit: Unknown Author, July 2011 (<https://commons.wikimedia.org/wiki/File:Calgary-Bow-p01.jpg>)

Corporate Environment, Health and Safety (EHS) Performance Report

October 10, 2018

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1 Introduction

The City of Calgary (The City) is committed to its corporate responsibilities related to environmental stewardship and a safe and healthy work environment. To demonstrate accountability for these responsibilities, The City reports semi-annually on specific indicators of environmental, health and safety performance.

The City's Action Plan for 2015 – 2018 has three priority areas which drive actions and outcomes related to corporate environmental and safety management: a well-run city, a healthy and green city, and a city of inspiring neighbourhoods. The City's Code of Conduct includes The City

of Calgary's Environmental Policy and Occupational Health & Safety Policy. These policies establish a set of commitments outlining The City's intentions to manage environmental and safety risks, fulfil compliance obligations, and continually improve performance.

The City's environmental and safety management systems support The City in fulfilling its policy commitments. Through the processes established within the systems, environmental and safety considerations are integrated into The City's day-to-day activities and longer-term strategic plans.

The results-based accountability (RBA) approach has been incorporated into corporate environmental and safety management, encouraging collaboration and evidence-based decision-making to improve performance and manage risks. The RBA approach also supports environmental and safety reporting by providing a framework to demonstrate how The Corporation's performance contributes to higher level results and Council Priorities.

This report presents information on The Corporation's environmental, health and safety management and performance, with a focus on Q1 and Q2 2018.



2 Corporate Health and Safety Management and Performance

The City's Occupational Health and Safety (OHS) Policy reinforces The City's commitment to provide a safe and healthy work environment for its employees. The City's OHS Management System establishes the standards, processes and programs to meet legislated requirements, manage health and safety risks, and continually improve safety performance. Within the OHS Management System, The City has a Corporate Safety Strategy that identifies opportunities to strengthen corporate safety culture and improve safety performance in five result areas: safety culture; leadership; governance; programs and services; and evaluation and measurement. The Corporate Safety Strategy will be updated for the next business cycle (2019 – 2022) and will integrate and align with One Calgary, changes to legislation, corporate learning programs, and new and existing corporate safety programs and initiatives.

Setting safety targets within Action Plan targets established the basis for business units to develop and align their own safety targets. Business units have been supported to incorporate safety actions into their annual work plans to achieve their stated targets. In addition to corporate strategies and tactics, business units and departments implement a variety of operational controls to manage their specific safety risks.

As part of the provincial Partnerships in Injury Prevention program, The City will undergo an external audit of its OHS management system in 2019. The City must pass the audit to maintain its Certificate of Recognition (COR) and continue to receive a five per cent refund on its Workers' Compensation Board premiums (approximately \$850,000 per year). Following a successful audit, The City's COR will be valid for another three years, provided The City performs internal maintenance audits and/or submits an audit action plan in each of the subsequent two years.

Occupational health and safety incidents

Three incidents meeting Alberta Occupational Health and Safety's definition of 'serious' occurred in the first half of 2018:

- On 2018 February 22, a Water Services employee slipped and fell while stepping into a vehicle during wet/icy conditions. The employee broke their leg and required surgery. The division held a 'safety stand down' on February 28, requiring employees to participate in a discussion about recent incidents, other safety hazards, employer and employee responsibilities, and the importance of safe work practices. Alberta OHS issued a Demand for The City to complete an investigation of the 2018 February 22 incident and provide them with a copy of the investigation report. The City complied with the Demand and no further actions have been requested by the regulator.

- On 2018 June 17, Calgary Parks was removing a hazardous tree. An employee entered the drop zone while the work was taking place and was struck by the falling tree. The employee was transferred to the hospital and released the same day with shoulder and back injuries. The incident investigation determined that root causes were related to inadequate training and safety procedures. Corrective actions, including training improvements and new procedures, have been initiated. Alberta OHS issued a Demand for The City to complete an investigation and provide them with a copy of the report. The City complied with the Demand and no further actions have been requested by the regulator.
- On 2018 June 22, a Calgary Transit operator was returning an out-of-service bus to a garage. The bus crossed two lanes of traffic, mounted a curb, and struck an in-service bus that was safely stopped in a designated bus zone. The collision caused significant damage to both buses and trapped one operator in their bus, requiring extrication by the Calgary Fire Department. One citizen on the in-service bus sustained a minor first aid injury. Alberta OHS issued Stop Work Orders for both buses. The Orders will not be lifted until the buses have been repaired or disposed to the satisfaction of the regulator. An investigation is on-going.

Changes to Occupational Health and Safety and Workers' Compensation Legislation

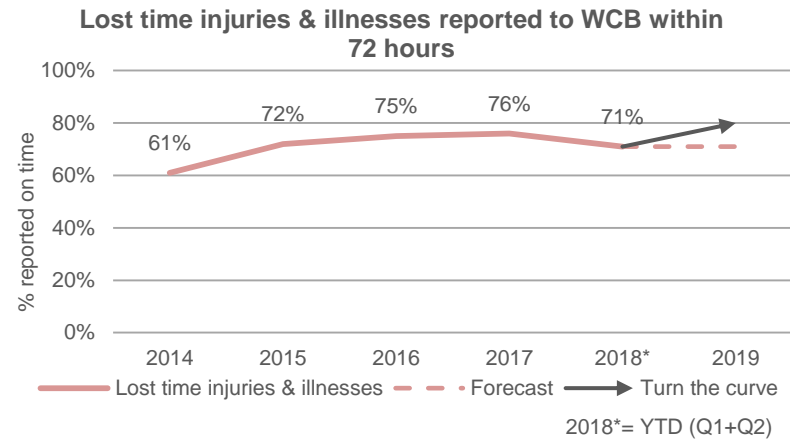
Many changes to Alberta's OHS and Workers' Compensation legislation took effect on 2018 June 1 and 2018 September 1. The City has reviewed and updated its processes to comply with the changes. Changes that require continued focus include:

- The amended OHS legislation requires Joint Worksite Health and Safety Committees for worksites operating longer than 90 days and with 20 people or more. The City has discussed compliance options with the regulator and will be submitting a formal request to the Province for a committee structure that works for our organization.
- The amended OHS legislation adds new requirements to report "potentially serious" incidents and incidents that result in a worker being admitted to hospital for any period of time (previously only incidents that resulted in two or more days in hospital were reportable). The City's ability to demonstrate due diligence with respect to the new reporting requirements will be supported by a detailed reporting process and a decision-tree to guide corporate safety leaders in determining when an incident is reportable.
- The amended Workers' Compensation legislation requires that the employer return an employee to work within three days of receiving medical clearance for any level of duties. This new requirement creates a compliance risk for The City, and is expected to increase The City's accommodation effort. Human Resources has initiated an Accommodation Strategy project to support The City in complying with these changes

Workers' Compensation Board (WCB) reporting

Lost time injuries and illnesses must be reported to the Workers' Compensation Board (WCB) within 72 hours of the employer receiving notification that the incident has resulted in lost time or medical treatment being sought.

Performance declined in the first half of 2018. Supervisors across The Corporation are being encouraged to take The City's Workers' Compensation Matters course to improve understanding of the WCB process. Increasing supervisor understanding of WCB processes is expected to improve reporting compliance.



Workplace injuries and illnesses The City's Occupational Health and Safety Policy outlines The City's commitment to providing a safe and healthy work environment for its employees. The Policy also sets out expectations for employees to contribute to a safe and healthy work environment as a shared responsibility. Protecting the health and safety of employees aligns with Council Priority to be a "Well-run City".																																						
Customers Leaders, managers, operational and administrative employees, health safety and wellness risk owners, Administrative Leadership Team.		Key partners Senior Safety Committee, business unit safety contacts, Human Resources, Corporate Analytics & Innovation, Facility Management, Corporate Security, Supply Management, Law, Fleet Services.																																				
How are we doing?																																						
<div><p>Safety reporting pyramid 2018 YTD (Q1+Q2)</p><div><div>Lost Time385</div><div>Medical Aid305</div><div>First Aid + Untreated633</div><div>Near Misses + Damage Only286</div><div>Hazardous Conditions & Acts290</div></div><div><p>Ideal State</p></div></div>	<div><p>Corporation-wide Total Recordable Injury Frequency</p><table><tr><th>Year</th><th>TRIF</th></tr><tr><td>2012</td><td>9.1</td></tr><tr><td>2013</td><td>9.5</td></tr><tr><td>2014</td><td>9.4</td></tr><tr><td>2015</td><td>9.2</td></tr><tr><td>2016</td><td>8.3</td></tr><tr><td>2017</td><td>10.5</td></tr><tr><td>2018*</td><td>12.5</td></tr><tr><td>2019</td><td>Forecast</td></tr></table><p>2018* = YTD (Q1+Q2)</p><p>Legend: TRIF (solid red line), Forecast (dashed red line), Action Plan Target (W.PM16) (red diamond), Turn the curve (black arrow).</p></div>	Year	TRIF	2012	9.1	2013	9.5	2014	9.4	2015	9.2	2016	8.3	2017	10.5	2018*	12.5	2019	Forecast	<div><p>Corporation-wide Lost Time Claim Frequency</p><table><tr><th>Year</th><th>LTCF</th></tr><tr><td>2012</td><td>4.5</td></tr><tr><td>2013</td><td>3.9</td></tr><tr><td>2014</td><td>3.9</td></tr><tr><td>2015</td><td>3.9</td></tr><tr><td>2016</td><td>3.9</td></tr><tr><td>2017</td><td>5.0</td></tr><tr><td>2018*</td><td>5.9</td></tr><tr><td>2019</td><td>Forecast</td></tr></table><p>2018* = YTD (Q1+Q2)</p><p>Legend: LTCF (solid red line), Forecast (dashed red line), Action Plan Target (W.PM19) (red diamond), Turn the curve (black arrow).</p></div>	Year	LTCF	2012	4.5	2013	3.9	2014	3.9	2015	3.9	2016	3.9	2017	5.0	2018*	5.9	2019	Forecast
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<p>Performance on near-miss and hazardous condition reporting declined in Q1 and Q2 2018. The percentage of all reported incidents that were hazardous conditions or near misses decreased from 32% in 2017 to 27% in the first half of 2018. At least 90% of reported incidents should be hazardous conditions or near-misses, which can be proactively controlled.</p>	<p>Performance on Total Recordable Injury Frequency (TRIF) and Lost Time Claims Frequency (LTCF) continued to decline in the first half of 2018. Top incident types for recordable injuries and illnesses in Q1 and Q2 were primarily related to slips, trips, and falls; body positioning; contact with an object or machinery (excluding mobile equipment); overexertion; and motor vehicle accidents. The most common causes of incidents reported for Q1 2018 were weather, road, and surface conditions. Beyond weather-related causes, the other most common incident causes for Q1 and Q2 2018 were lack of knowledge or awareness; failure to identify the hazard or risk; inadequate preparation or planning; and unsafe actions by others. These top incident types and causes are similar to those in 2017.</p>																																					
<p>Key accomplishments</p> <ul style="list-style-type: none">- Safety Month saw over 450 employees and leaders attend 29 corporate safety events. Individual business units led another 16 successful events for staff.- Although overall performance on near-miss and hazardous condition reporting has declined, a targeted campaign saw a 43% increase in these types of reports in April and May 2018.- 'myCity/safety' was added to the homepage navigation to improve access to safety information and show the importance of safety within The City's culture. <p>Moving forward</p> <ul style="list-style-type: none">- A City-specific Leadership for Safety Excellence course will be created in collaboration with the Alberta Municipal Health and Safety Association and promoted to improve health and safety competence of The City's leaders.- The City's personal protective equipment (PPE) practices will be improved, incorporating best practices from recent initiatives in Utilities and Environmental Protection, including the implementation of foot traction devices to reduce slips, trips, and falls in winter months.- Hazard identification, assessment and control processes will be updated to improve employee understanding of worksite hazards and controls.																																						

Managing workplace injuries and illnesses Intentional incident management includes supporting employees in seeking timely medical treatment after a work-related injury, and supporting them through Workers' Compensation Board (WCB) and return to work processes to reduce the amount of time the employee loses from work. Incident management also includes thorough and timely incident investigations, which are critical to understanding causes and developing appropriate corrective actions and strategies.		
Customers Leaders, managers, and operational and administrative employees, Health, safety and wellness risk owners, Administrative Leadership Team, Council.	Key partners All business units, including Human Resources, City leaders and managers, Workers' Compensation Board (WCB), industry partners.	
How are we doing?		
<p>% of recordable incidents with root causes documented</p> <p>Y-axis: % of incidents (0% to 100%)</p> <p>X-axis: Q1 2016 to Q4 2018</p> <p>Legend: Recordable incidents with root causes documented (solid red line), Forecast (dashed red line).</p>	<p>Average days lost per lost time claim</p> <p>Y-axis: Days lost (0 to 30)</p> <p>X-axis: 2013 to 2019</p> <p>Legend: Average days lost per lost time claim (solid red line), Action Plan Target (W.PM17) (black diamond), Forecast (dashed red line), Turn the curve (black arrow).</p> <p>2018* = YTD (Q1+Q2)</p>	<p>Total lost time claim costs</p> <p>Y-axis: Total cost (millions \$) (0 to 10)</p> <p>X-axis: 2013 to 2019</p> <p>Legend: Total lost time claim costs 2018 YTD (red bar), Total lost time claim costs (solid red line), Forecast (dashed red line), Turn the curve (black arrow).</p> <p>2018* = YTD (Q1+Q2)</p>
The City has improved performance related to the identification of immediate and underlying causes for recordable incidents (medical aid and lost time incidents). In general, this improvement has been driven by conducting detailed reviews to ensure a sufficient root cause analysis by supervisors. Safety Advisors have provided support to supervisors to ensure reports are complete prior to submission to managers for final approval. The quality of the investigations is improving.	Although The City was meeting its Action Plan target at the end of Q2 2018, the average number of days lost due to work-related incidents is forecast to increase by year end. A key factor in the number of days lost is The City's performance on returning employees to work through accommodation. In the first half of the year, 54% of employees that could be accommodated (based on medical clearance) were provided with an accommodation , a decrease since 2017 (76%).	The total lost time claim costs due to work-related incidents is forecast to be higher in 2018 than 2017 due to an increase in lost time claims, and reduced performance on accommodation and on-time WCB reporting. WCB premiums are affected by lost time claim costs, industry rate increases, and employee earnings. Amendments to the <i>Workers' Compensation Act</i> are expected to result in a further increase to premiums over time. The City's 2017 premiums were \$20.7 million and are forecast to be over \$21.0 million for 2018.
Key accomplishments		
<ul style="list-style-type: none">- The City's Safety Advisors were provided with advanced incident investigation training to enable them to better support supervisors across the organization.- Implemented 'safety stand downs', typically after serious incidents, to have dedicated safety discussions with employees.- Safety Month 2018 included focused messaging about the requirement for supervisors to investigate root causes for reported incidents.		
Moving forward		
<ul style="list-style-type: none">- Continue developing an Accommodation Strategy to support The City in providing modified work to returning employees within the legislated timeframe.- Continue Job Demands Analyses on safety-sensitive and high-risk positions to support workplace accommodation, as well as hazard identification and assessment.- Work with supervisors across The Corporation to improve the timeliness of incident report reviews.		

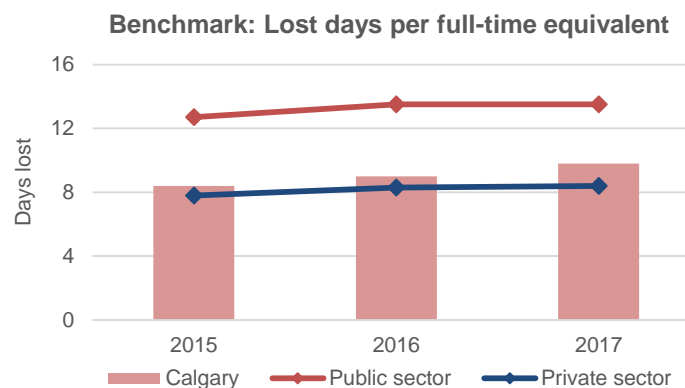
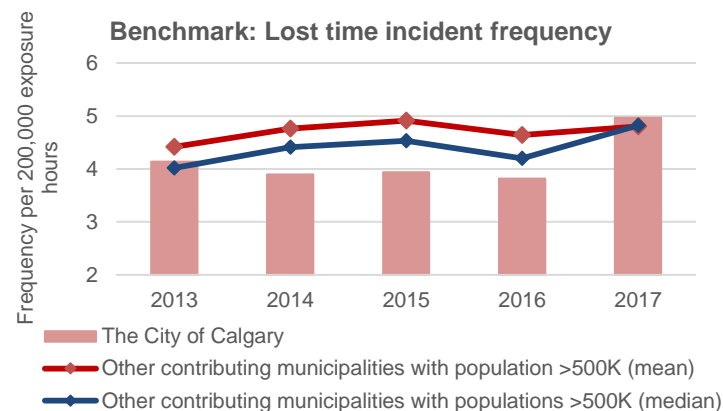
Benchmarking

The City participates in the Municipal Benchmarking Network, a network of Canadian municipalities that collect and compare standardized data for the purposes of service improvement. Through this network, The City is benchmarking lost time incident frequency and lost time incident severity¹. Eight cities with populations greater than 500,000 contribute data. Historically, The City's performance on lost time incident frequency has been better than the average and median performance of these comparable cities. However, in 2017, The City's performance fell slightly below that of comparable cities.

Since 2015, The City of Calgary's performance on lost time incident severity, measured by time lost from work, has been better than the average and median performance of comparable cities.

The City is also benchmarking employee absenteeism due to employee illness and injury as an indicator of employee safety and wellness. This is calculated as the average number of days lost per full-time equivalent (FTE) employee in a year due to sickness and accident days, and WCB claims. For this measure, The City is compared to public and private sector entities based on the Statistics Canada Labour Force Survey². The City compares favourably to public sector performance. Overall, Canada's private sector performs better than The City. However, the comparison is qualified in that public sector entities typically have different operating and labour conditions than private sector entities.

Although The City is benchmarking favourably against other municipalities and public sector entities for days lost due to sickness, accident, and WCB claims, The City's own performance on both lost time claim frequency and days lost has been declining since 2015. Having employees off work reduces productivity and increases The City's costs, including WCB premiums. The City must continue to implement strategic and tactical actions to 'turn the curve' on performance.



¹ Municipal Benchmarking Network Canada. 2018 August 28. Data Tables Report – Human Resources.

² Statistics Canada. Table 14-10-0196-01 Work absence of full-time employees by public and private sector, annual.

3 Corporate Environmental Management and Performance

The City of Calgary's Environmental Policy provides direction for City business units to work together to fulfill environmental compliance obligations and continually improve performance. Environmental management at The City is currently focused at the business unit level with nine business units formally registered to the ISO 14001 standard for environmental management systems (EMS). In 2017, ALT endorsed a renewed Corporate-wide Environmental Management System (EMS) that includes all The City's business units and service lines. A corporate-wide system will enable The City to work across organizational lines to manage environmental risks and take advantage of opportunities for efficiency and collaboration.

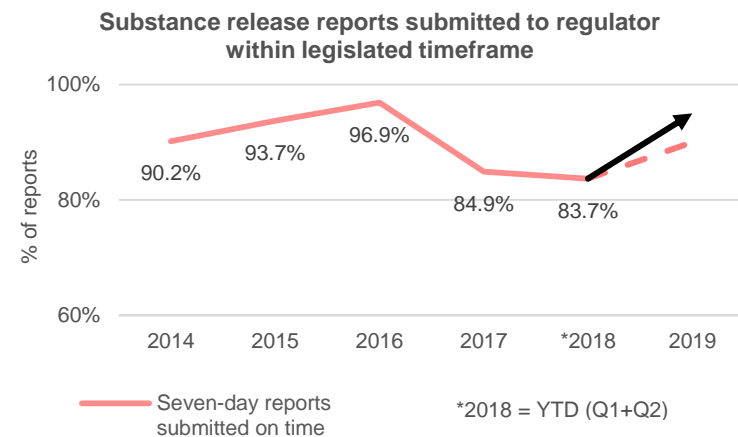
Throughout 2018, ESM has been collaborating with its internal partners to develop various elements of the corporate-wide system, including a set of process-oriented EMS Standards that will establish a systematic approach to environmental compliance, risk mitigation, and performance management. In addition to the EMS Standards, individual business units can maintain their registrations to ISO 14001 where warranted according to their level of environmental risk.

Environmental incidents

The total number of substance releases in 2018 is forecast to be lower than in 2017. As with 2017, primary causes for 2018 to date include hose/line failure and vehicle leaks and accidents. Other predominant causes include general equipment failure and mechanical failure. Sanitary system backups and water main breaks, which were primary causes in 2017, have not been as prevalent in 2018.

Substance releases that exceed established thresholds or may cause an adverse effect on the environment or human health must be reported verbally to Alberta Environment & Parks (AEP). A written report must also be submitted within seven days of the verbal report. In the first half of 2018, there was a lower compliance rate with the seven-day timeline for written report submission compared to 2017.

A major update of the Corporate Substance Release Reporting Program will be implemented in October 2018. Improvements are focused on incorporating newly updated provincial regulations, providing clear guidance to employees, streamlining the reporting process, and improving data analysis capabilities. The updated program is expected to improve compliance with reporting requirements.



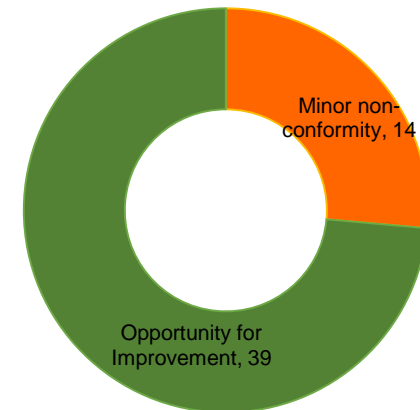
Internal and external environmental audits

The City's nine ISO 14001-registered business units undergo formal internal and external audits every year to assess conformance to the ISO 14001 standard, corporate environmental management standards, and the business unit's own management system requirements. The audit program provides assurance of the overall suitability, adequacy, and effectiveness of the environmental management system in addressing environmental risk, compliance, and performance.

The ISO 14001 standard was updated in 2015, with a compliance date of 2018 September 14. Registered business units made substantial improvements to their management systems to meet the new (and higher) standard. Calgary Roads and Waste & Recycling Services re-registered to the new standard in 2017. Calgary Transit, Calgary Parks, Fleet Services, Transportation Infrastructure, Water Services and Water Resources, and Calgary Recreation underwent external transition audits between April and July 2018. All the ISO 14001-registered business units have now successfully certified to the 2015 standard.

In Q1 and Q2 2018, internal and external audits did not identify any major management system non-conformities. A total of 14 minor non-conformities and 39 opportunities for improvement were identified. Management system findings were primarily related to environmental aspects identification and assessment, management review, and documentation. Environmental performance findings were primarily related to emergency preparedness and response, chemical and fuel storage, and waste management. Internal audits also identified four medium-risk non-compliance findings related to emergency preparedness and response, training on Workplace Hazardous Materials Information System, and waste management.

2018 Q1 & Q2 Environmental
management system audit findings

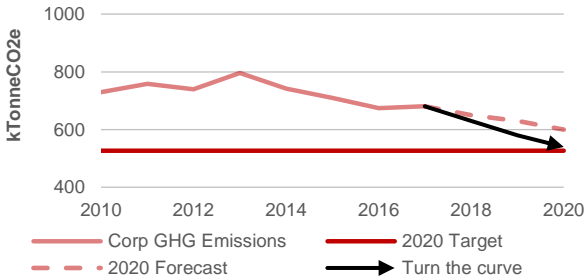
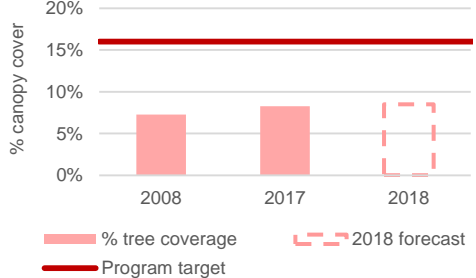


Changes to environmental legislation and policy

The City is monitoring and responding to recent and upcoming legislative and policy changes, including:

- Bill C-68 *An Act to amend the Fisheries Act and other Acts in consequence*, which is expected to receive Royal Assent in early 2019.
- Alberta's *Remediation Regulation*, which comes into effect on 2019 January 01.
- Alberta's *Act to Enable Clean Energy Improvements*, which is expected to come into force in 2019.
- The Government of Alberta's announcement that it will no longer be participating in the Pan-Canadian Framework on Clean Growth and Climate Change.

While some uncertainty exists with respect to implementation requirements, The City is well-positioned to respond to these changes. The City is actively working with provincial and federal regulators to clarify and influence expectations.

<p>Improving corporate environmental performance is a key commitment under The City of Calgary's Environmental Policy. We work together to conserve, protect, and enhance the environment by complying with legislation, conserving our resources, and preventing pollution.</p>		
<p>Customers: Environmental / City policy owners, City facility managers, internal working groups, subject matter experts, Council, ALT, and citizens.</p>		<p>Key partners: Utilities & Environmental Protection, Planning & Development, Transportation, Calgary Parks, Supply Management, Law, Facility Management, transportation and waste experts, academia, non-profits, consultants, businesses.</p>
<p>How are we doing?</p>		
<p>Municipal salt management</p> <p>The City has implemented federal Code of Practice best management practices to achieve voluntary compliance targets for the management, planning, storage, and application on roadways of road salts and chloride-treated abrasive materials. Calgary Roads has developed, implemented, and updated annually a "Road Salt Management Plan" to guide its storage and use of chlorides and traction materials, and continues to coordinate The City's efforts on the environmental management of road salts.</p> <p>Progress has been made by Calgary Roads in its investigation into potential opportunities for operational and engineering control strategies for salt management, both in its salt application to city streets and in the storage of salt and treated abrasives at its maintenance facilities including the more recently constructed Bearspaw and Sarcee depots.</p>	<p>Corporate Greenhouse Gas (GHG) emissions</p>  <p>Energy efficiency and small-scale renewable energy projects have decreased corporate greenhouse gas (GHG) emissions since they peaked in 2013. Corporate GHGs for 2018 are projected to remain close to 2017 GHGs at 680 tonnes CO₂e due to the persistent cold in January and February, elevating natural gas consumption and offsetting The City's recent GHG initiatives.</p>	<p>Municipal tree canopy coverage</p>  <p>The Municipal Development Plan and Urban Forest Strategic Plan set a tree canopy coverage goal of 14-20% city-wide, with models showing that 16% is achievable with the right conditions and resources. Current tree canopy coverage in Calgary is approximately 8.25%. Tree canopy coverage has only increased by 1% over the last decade due to impacts from the 2013 flood and the snow event of 2014.</p>
<p>Key accomplishments</p> <ul style="list-style-type: none"> - The City is on track to meet seven Code of Practice national targets for road salt management with the possible exception of the target to have 75% of salt-treated abrasives (aka pickle) stored on paved surfaces and under permanent cover by 2019. - In the 2017-2018 winter season, the Beet 55 Brine trial for the cycle track demonstrated its effectiveness in reducing the amount of salt applied to City roads. - The ground-mounted solar project at Shepard Landfill and new Composting Facility provide a potential GHG reduction of 155,000 tonnes of CO₂e per year. - Learnings from ReTree YYC have led to proactive maintenance of The City's current tree inventory to increase the resiliency of Calgary's urban forest. <p>Moving forward</p> <ul style="list-style-type: none"> - In Q1 2018, a master plan was completed to produce a prioritized list of capital improvement projects to help move The City toward full voluntary compliance with the Code of Practice targets and reduce contamination risks related to the storage of treated abrasive materials and salt. These priorities, including new salt and brine storage structures and stormwater retention facilities, have been included in One Calgary for consideration in the 2019 – 2022 budget cycle. - Implementation of prioritized Climate Change Adaptation and Mitigation actions under the approved Climate Resilience Strategy will further enable The City to reduce corporate GHGs. The Climate Change Program is working with One Calgary to integrate those actions into the 2019-2022 budget cycle. - The Bonnybrook Wastewater Treatment Plant will be installing a 4 MW gas turbine for their combined-heat-and-power plant which utilizes generated biogas. - Forecasting for 2019-2022 tree planting and canopy coverage targets will be completed following One Calgary budget approvals. 		

Delivery of internal programs and services means working collaboratively to reduce the environmental impact of capital projects, public services, and City infrastructure in support of the City's commitment to lead by example and inspire actions to conserve, protect, and enhance the environment for all Calgarians.																										
Customers: City land stewards, site operators, project managers, telecommunication companies, utility providers, contractors, and citizens.	Key Partners: Facility Management, Waste & Recycling Services, Law, Finance, Real Estate and Development Services, Corp Analytics and Innovation, Urban Forestry, Water Resources, external consultants, community members and citizens, regulatory authorities.																									
How are we doing?																										
Corporate waste diversion As one of the largest organizations in Calgary's Industrial, Commercial and Institutional (ICI) sector, The City of Calgary is leading by example on waste diversion by implementing the ICI Waste Diversion Strategy within its own operations and City-owned public spaces. As part of the Corporate Waste Diversion Program, Waste & Recycling Services is updating its data collection, management, and reporting processes to provide business units with regular updates on how much material they are sending to landfill for disposal, and how much they are diverting for recycling and composting. The City is working to improve waste diversion reporting in terms of data availability and accuracy. In the interim, performance data is not available for reporting.	<div>City-owned properties assessed for potential environmental risk and liability</div> <table><tr><th>Year</th><th># of properties assessed</th></tr><tr><td>2015</td><td>182</td></tr><tr><td>2016</td><td>481</td></tr><tr><td>2017</td><td>158</td></tr><tr><td>2018 (mid-year)</td><td>331</td></tr></table> <p># properties assessed Program target</p> <div>The Action Plan target to assess 150 sites per year for contamination risk was met for all four years of the business cycle. The increased number of sites assessed so far in 2018 is partially due to a new 'portfolio' approach to service delivery that improves internal customer service and is intended to provide business units a more complete understanding of the risk and liability associated with all their sites.</div>	Year	# of properties assessed	2015	182	2016	481	2017	158	2018 (mid-year)	331	<div>ECO Plans approved or conditionally approved on first submission</div> <table><tr><th>Year</th><th>percentage of ECO Plans</th></tr><tr><td>2014</td><td>33%</td></tr><tr><td>2015</td><td>38%</td></tr><tr><td>2016</td><td>17%</td></tr><tr><td>2017</td><td>47%</td></tr><tr><td>*2018</td><td>38%</td></tr><tr><td>2019</td><td>38% (forecast)</td></tr></table> <p>ECO plans (per year) --- 2019 forecast → Turn the curve *2018 = YTD (Q1+Q2)</p> <div>For the 67 capital projects requiring ECO Plans in Q1/Q2 2018, 38% of ECO Plans met program requirements on first submission. This rate is expected to increase by the end of 2018. Increasing the first submission success rate helps to reduce unnecessary project delays and costs while supporting projects in meeting City and other regulatory environmental requirements.</div>	Year	percentage of ECO Plans	2014	33%	2015	38%	2016	17%	2017	47%	*2018	38%	2019	38% (forecast)
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Key accomplishments <ul style="list-style-type: none">- In Q1 and Q2 2018, the Waste in Public Spaces and Corporate Food and Yard Waste projects were concluded, with expanded food and yard waste diversion to all staffed buildings and City-owned public facilities with food amenities (a total of 231 buildings). This includes improving waste diversion options at transit platforms, parks, and select business improvement areas (BIAs).- During the first half of 2018, a portfolio-based approach was used to screen/review sites owned or operated by Calgary Housing Company (CHC) to identify actual or potential contamination concerns.																										
Moving forward <ul style="list-style-type: none">- New guidelines for waste diversion receptacles in City facilities are being launched to improve corporate waste diversion.- For the remainder of 2018, the ECO Plan program will be focusing on improving ECO Plan submissions, including a review of alternative software platforms for the online electronic template to further streamline the ECO Plan application process.- Business units will continue to be engaged regarding their contamination risk and liability for their portfolio of sites, and to prepare them for the new Alberta <i>Remediation Regulation</i> that will come into force in 2019.																										

Additional Environmental Milestones and Highlights

Environmental Outreach

The annual Mayor's Environmental Expo enhances environmental education amongst Calgary's school-aged population. This year, the event had 3,359 participants. In addition, the Eco-Leaders Program, a youth environmental leadership initiative, assisted 29 school teams with a total of 34 projects to research, design, and implement in their community. This program empowered 1,522 students, from grades 1 to 12, with direct environmental education. More students participated in the program this year than the previous two years. Looking forward, program coordinators will be working with the Canadian Parks and Wilderness Society (CPAWS) Southern Alberta Chapter to increase environmental education curriculum linkages and service accessibility to schools.

Calgary Parks launched *Calgary Captured*, a citizen science project that allows Calgarians to gain a better understanding of Calgary's wild species. The project is being undertaken in partnership with the Miistakis Institute, an organization that specializes in evaluating complex environmental problems using diverse skill sets and tools. Through an online platform, more than 2,100 contributors helped The City make 600,000 wildlife identifications within 51 days, exceeding original projections, which estimated this work would take 600 days. The images were captured on remote cameras located in 13 City parks and Fish Creek Provincial Park. Understanding where wildlife moves within parks and green corridors, as well as the barriers to their movement, allows The City to target conservation, park, and conflict management.

Integrated Pest Management

The City takes an integrated approach to managing invasive species. The approach includes alternatives to chemical pest control such as hand-pulling, mowing, and other methods. The goat grazing program is one such environmentally-friendly alternative. Following successful pilot years in 2016 and 2017, goats were once again used in 2018 to control invasive weeds. Goats grazed through the 2018 summer at Confluence Park, at new locations at Ralph Klein Park, and the inner-city escarpment of McHugh Bluff. Grazing at McHugh Bluff is part of a longer-term naturalization project being carried out in the area. The project contributes to the biodiversity policy of reconnecting urban ecosystems and fostering greater connections between Calgarians and their landscape.

The City also commissioned approximately 200 goats for weed control at the Fish Creek Wastewater Treatment Plant. While the footprint of the plant itself is small, the property includes a large area of land which has ongoing issues with an invasive species, Leafy Spurge. The goats provided weed control that is comparable in cost to mowing. A complementary release of Leafy Spurge beetles was carried out. The beetles work in tandem with the goats to reduce the spread of the weeds.

In addition to being a cost effective and environmentally-friendly method to manage invasive species, goat also fertilize the soil with their droppings and their hooves work the earth helping to till, aerate, and condition the ground. In 2017, the pilot program at

Confluence Park was extended in order to evaluate the long-term effectiveness of using goats to manage the occurrence and spread of target weed species. The program will run until 2020.

Biosolids Management

Biosolids, a nutrient-rich organic material produced by advanced wastewater treatment processes, are a valuable resource that The City has been beneficially using for more than 30 years as an agricultural fertilizer (within the Calgro program). More recently, The City has been using biosolids as a fertilizer to grow approximately 400 hectares of willow on otherwise poor-quality agricultural land northeast of Calgary. This willow project was developed to beneficially utilize biosolids and diversify beneficial reuse for the longer term. With over 5 million willows planted, the plantation is one of the largest willow plantations in North America. In 2017, The City of Calgary entered into a partnership with the Calgary Zoo to provide the willow produced from this project as a browsing and foraging food source for Zoo animals. By providing a continuous and reliable source of willows to the Zoo, The City will significantly increase the Zoo's operational efficiencies and create long term savings in time, labor and cost. The City is currently exploring other beneficial use opportunities for the willow wood.

Another large proportion of the produced biosolids is converted into compost. The Calgary Composting Facility started receiving dewatered biosolids to produce a compost that is safe to use for several applications, adding valuable nutrients to the soil. Biosolids and green cart waste are composted separately.

Erosion & Sediment Control

Construction activity in Calgary can expose soils to wind and water runoff which makes them vulnerable to erosion. In July 2018, after extensive engagement and a six-month phase-in process, The City's 2017 Erosion and Sediment Control (ESC) Guidelines and Specifications were fully implemented on all new development applications with soil disturbances greater than 0.4 hectares. The City's requirements to design and install ESC measures on construction sites results in less sediment entering our waterways, which is an important part of staying below provincial total suspended solids (TSS) guidelines and maintaining healthy rivers.

**Utilities & Environmental Protection Report to
SPC on Utilities and Corporate Services
2018 October 10**

**ISC: UNRESTRICTED
UCS2018-1050**

Regional Water Allocation

EXECUTIVE SUMMARY

The purpose of this report is to provide Council with recommended amendments to the contracted flow rates for The City of Calgary's (The City's) municipal customers for 2019 – 2022. In alignment with Council Policy CP2018-01, The City should continue to provide water servicing to existing regional customers, as per existing servicing agreements, with increased volumes for 2019 - 2022 subject to Council approval.

The recommended amendments align with Council's direction (C2014-0790) to reserve, in principle, up to 27,200 ML of water from the City's Water Licence capacity to provide water services to Airdrie, Strathmore and Chestermere for 20 years in accordance with their new Master Servicing Agreements (2015 to 2035), subject to confirmation and Council approval every four year business cycle.

Roughly three percent (11,400 ML) of Calgary's annual water allocation must be reserved for The City's existing regional customers through 2022. Administration will continue to report to Council prior to each business cycle for approval of contracted water volumes.

The City is dedicated to ensuring reliable and resilient water servicing for Calgary and its regional customers. The City provides drinking water for about one in three Albertans, and has been providing water services outside of its corporate boundaries since approximately 1961 through bi-lateral servicing agreements. Potable water services are provided to seven municipal and commercial customers outside Calgary's boundary, including Tsuut'ina First Nation.

ADMINISTRATION RECOMMENDATION:

That the SPC on Utilities and Corporate Services (UCS) recommends that Council direct Administration to allocate, for 2019 – 2022, 11,400 ML of water within The City of Calgary's Annual Water Licence capacity to provide water services to existing customers outside the City in accordance with their regional servicing agreements (Attachment 1).

And further, that the SPC on UCS forward this Report as an item of Urgent Business to the 2018 October 15 Regular Meeting of Council.

PREVIOUS COUNCIL DIRECTION / POLICY

2014 May 26 (C2014-0353), Council directed Administration to:

- Reserve, for 2015 – 2018, 10,410 ML of water from the City of Calgary's Water Licence capacity to provide water services to Airdrie, Strathmore and Chestermere in accordance with their Master Servicing Agreements.
- Negotiate and execute Master Servicing Agreements with Airdrie, Strathmore, Chestermere and Cochrane based on the attached term sheet (Attachment 1).
- Report to Council prior to each business cycle for approval of regional customer water allocation under contract and overall security of water supply.

2014 July 21 (C2014-0564), Council:

- Amended the 2015 – 2018 annual water allocation for Airdrie, Strathmore and Chestermere to 11,000 ML;

**Utilities & Environmental Protection Report to
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2018 October 10
Regional Water Allocation**

**ISC: UNRESTRICTED
UCS2018-1050**

2014 October 27 (C2014-0790) Council directed Administration to reserve, in principle, up to 27,200 ML of water from the City of Calgary's Water Licence capacity to provide water services to Airdrie, Strathmore and Chestermere for 20 years in accordance with their new Master Servicing Agreements from 2015 to 2035, subject to confirmation and Council approval every four year business cycle.

2018 February 15 (IGA2018-0089), Council adopted a new Policy on Regional Water, Wastewater and Stormwater Servicing (CP2018-01) and directed Administration to return to Council, through the SPC on Utilities and Corporate Services, in Q2 2018 on the 2019 – 2022 Regional Water Allocations.

BACKGROUND

The City's approach to regional service delivery is managed through bi-lateral Master Servicing Agreements (MSAs). The City of Calgary supplies potable water to seven customers outside of The City's corporate boundary. Roughly three percent of Calgary's annual water allocation must be reserved for The City's existing regional customers through 2022. A projected five percent of Calgary's annual water allocation would potentially be allocated to regional customers by the end of 2034. Over the term of these servicing agreements, these customers will draw on The City's water licence capacity. The Town of Strathmore holds its own water rights for a portion of their water supply needs (2220 ML) and the MSA with Tsuut'ina Nation does not address water licences.

MSAs with municipal customers require planned amendments to the contracted flow rates for 2019 – 2022 in alignment with the 2019 – 2022 Cost of Service Study (UCS2018-0884). Due to engagement with the regional customers on the Cost of Service Study, Administration is returning to Council now as opposed to Q2 2018, as originally directed by Council in IGA2018-0089. Administration will continue to report to Council prior to each business cycle for approval of contracted water volumes for regional customers.

INVESTIGATION: ALTERNATIVES AND ANALYSIS

The City has committed to providing water to existing regional customers, some of which are growing municipalities. In alignment with Council Policy CP2018-01, The City should continue to provide water servicing to existing regional customers as per existing servicing agreements, with increased volumes for 2019 - 2022 subject to Council approval.

The South Saskatchewan River Basin is closed to new water licences. As a consequence, The City's water licences need to be protected for Calgary's current and future growth. Over the next year, Administration will be assessing drought risks and strategies, and revising peak day water demand targets. This assessment will provide further information on The City's long term water supply needs and licence capacity. While this assessment occurs, Administration will continue to engage the Province, the CMRB and other regional stakeholders to create a shared understanding of The City's water licence constraints and need for a long-term regional water supply strategy.

**Utilities & Environmental Protection Report to
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**ISC: UNRESTRICTED
UCS2018-1050**

Stakeholder Engagement, Research and Communication

Administration works closely with our regional customers on a regular basis on the servicing provisions identified in the MSAs and required MSA amendments. The projected flow rate requirements are provided by each regional customer. The 2019 – 2022 flow rates shown in Attachment 1 have been used to inform the regional utility rates for regional customers in the 2019 - 2022 Cost of Service Study.

Strategic Alignment

Regional water and wastewater servicing demonstrates The City's commitment and obligation to being a regional partner. This work aligns to Action Plan (2015 – 2018) Strategic Action H4 – Work with our regional partners and the Government of Alberta on an integrated approach to the watershed.

Providing water for regional servicing also supports the Province's Water for Life goals.

Social, Environmental, Economic (External)

The City does not profit from regional servicing and rates are based on a cost recovery model. Regional servicing demonstrates Calgary's commitment to being a regional partner and supporting growth in the Calgary Metropolitan Region.

Provision of water services from The City will assure a reliable supply of water for citizens and will protect public health in the region. As is the case within Calgary, regional customers have demonstrated efficient water use, aligning with Calgary's own focus on water efficiency. While regional servicing supports the Provinces Water for Life objectives, The City must also ensure that its water licences are protected to support Calgary's future growth.

Financial Capacity

Current and Future Operating Budget:

Treatment and transmission costs will be recovered through regional fixed and variable rates recommended by the Cost of Service Study (UCS2018-0884) and approved by Council.

Current and Future Capital Budget:

Treatment and transmission costs will be recovered through regional fixed and variable rates recommended by the Cost of Service Study (UCS2018-0884) and approved by Council.

There are no immediate implications to The City's capital budget associated with this report

Risk Assessment

Water usage by regional customers represents a small portion of Calgary's total annual water licence capacity. Regional water provided under all MSAs by 2022 represents roughly two percent of the overall City of Calgary annual water licence capacity, with a projected five percent by the end of 2034. However, Administration will continue to engage the Province, CMRB and other regional stakeholders to create a shared understanding of The City's water licence constraints and need for a long-term regional water supply strategy.

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Regional Water Allocation**

**ISC: UNRESTRICTED
UCS2018-1050**

Administration will also continue to assess drought risks and strategies associated with peak day water demands.

While The City does not share this opinion, there is a risk of the Province taking action under the Water Act to bring The City into their stated view of compliance.

REASON(S) FOR RECOMMENDATION(S):

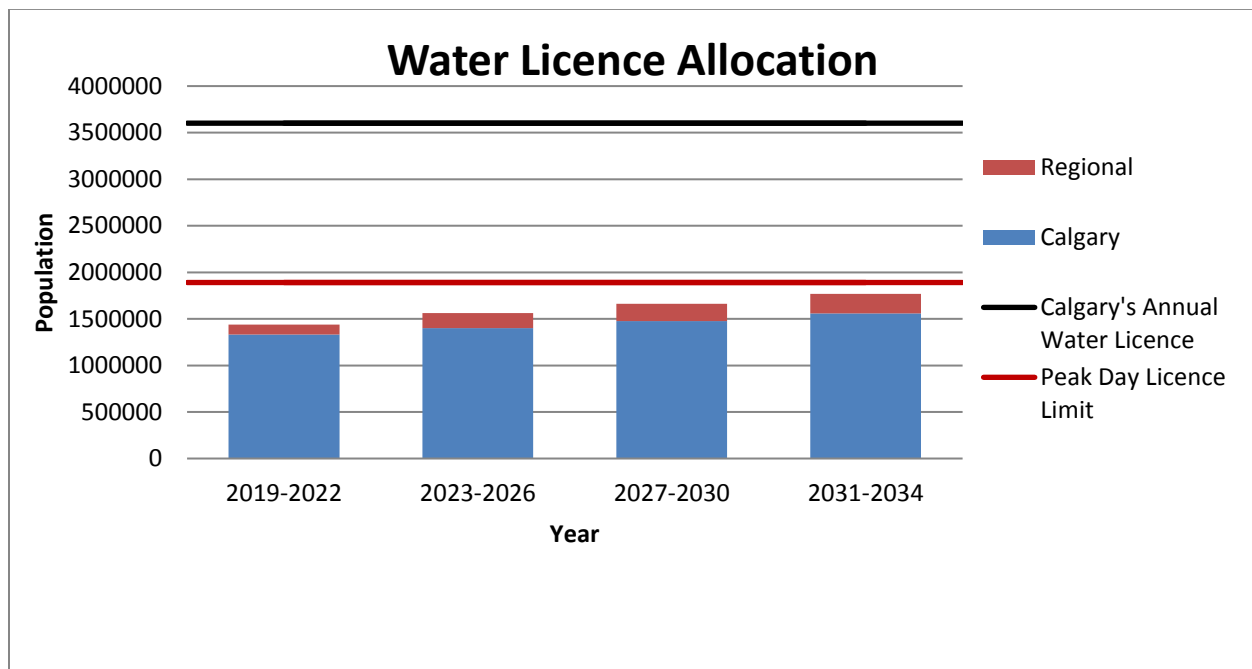
Regional servicing aligns with City of Calgary Council Policies on water service beyond The City's boundaries. Regional servicing is an effective and efficient approach for meeting the growth needs of the Calgary region.

ATTACHMENT(S)

1. Attachment 1 – Regional Water Licence Allocations
2. Attachment 2 – Regional Servicing Summary

Proposed Regional Water Licence Allocations for Existing Customers (2019 – 2034)

BUSINESS CYCLE	2019 - 2022	2023 - 2026	2027 - 2030	2031 - 2034
YEAR	2022	2026	2030	2034
CITY OF CALGARY – ANNUAL WATER USAGE (ML)	170,000	179,100	188,800	199,100
WATER SUPPLIED USING CALGARY'S LICENSES (ML) – PROPOSED REGIONAL COMMITMENTS UNDER MSAs				
Airdrie ⁽¹⁾	8,000	11,100	12,500	13,900
Chestermere ⁽¹⁾	2,500	4,300	5,200	5,900
Strathmore ⁽¹⁾⁽²⁾	0	0	55	350
Nexen Gas A&R Facility	15	200	200	200
Nexen Power	800	800	800	800
Spruce Meadows	35	35	35	35
TOTAL CITY LICENSE CAPACITY (ML) RESERVED FOR MUNICIPAL REGIONAL CUSTOMERS				
	11,400	16,500	18,800	21,200
% of Total Annual Licence	2.5%	3.6%	4.1%	4.6%
WATER PRODUCED (ML) THROUGH THE WORKS OF THE CITY (ML) – CUSTOMERS HAVE THEIR OWN RIGHTS				
Strathmore ⁽²⁾	1800	2100	2,220	2,220
Tsuut'ina ⁽³⁾	500	700	900	1,100
Total Water – Customers Have Their Own Rights	2,300	2,800	3,120	3,320



1 - Projected amounts in proposed MSA amendments

2 - Strathmore holds its own water rights sufficient to 2220 ML.

3 - Tsuut'ina amount under their own water rights.

Regional Servicing Summary

This servicing summary is intended to provide a high level summary of regional matters relevant to Council which are related to regional water and wastewater servicing, and inter-municipal drainage.

Table 1: Existing Regional Water & Wastewater Customers

Customer	Type of Existing Service	2019-2022 Flow Rate Amendments Required in 2018 ¹	MSA / Agreement <ul style="list-style-type: none"> Expiry Date 	CMRB Member	Servicing Since
City of Airdrie	Water & Wastewater	✓	MSA <ul style="list-style-type: none"> 2035 Jan 1 	Yes	1976
City of Chestermere	Water & Wastewater	✓	MSA <ul style="list-style-type: none"> 2035 Jan 1 	Yes	1983
Town of Cochrane	Wastewater	✓	MSA <ul style="list-style-type: none"> 2035 Jan 1 	Yes	1998
MD of Foothills	Spruce Meadows <ul style="list-style-type: none"> Water 		Agreement with Spruce Meadows directly <ul style="list-style-type: none"> 2021 Mar 31 	Yes	1986
Nexen Gas Plant	Water		Agreement <ul style="list-style-type: none"> 2033 Feb 28 	N/A	1961
Nexen Power Plant	Water & Wastewater		Water Agreement <ul style="list-style-type: none"> 2022 Wastewater Agreement <ul style="list-style-type: none"> 2027 	N/A	2002

Customer	Type of Existing Service	2019-2022 Flow Rate Amendments Required in 2018 ¹	MSA / Agreement <ul style="list-style-type: none"> Expiry Date 	CMRB Member	Servicing Since
Rocky View County (RVC)	Elbow Valley Service Area <ul style="list-style-type: none"> Wastewater Bears paw School <ul style="list-style-type: none"> Wastewater 		Elbow Valley Service Area Agreement <ul style="list-style-type: none"> 2022 Sept Bears paw School Agreement <ul style="list-style-type: none"> No expiry MSA nearing execution	Yes	1998
Town of Strathmore	Water	✓	MSA <ul style="list-style-type: none"> 2035 Jan 1 	Yes	2009
Tsuut'ina	Water & Wastewater	✓	MSA <ul style="list-style-type: none"> 2039 Mar 19 	No	1972

¹ Regional Water Licence allocations for customers with Water servicing require Council approval.

Definitions:

- **“MSA”** means Master Servicing Agreement for water and or wastewater servicing which is a standardized and modernized servicing contract for an approved Service Area based on a Council approved term sheet. The MSA contains provisions and language which are not found in other regional servicing agreements still in effect.

Table 2: Regional Drainage

Municipality	Comments
Rocky View County (RVC)	<p>Cooperative Stormwater Management Initiative (CSMI)</p> <ul style="list-style-type: none"> The cooperative has executed a master agreement. <p>12 Mile Coulee Winter Drainage</p> <ul style="list-style-type: none"> RVC and Calgary continue to work on improving drainage issues

Table 3: Regional Strategy

Item	Comments
Source Water Protection Planning	Work ongoing.
Regional Water Supply & Licencing Strategy	Work ongoing.
Calgary Metropolitan Region Board (CMRB)	<p>Three subcommittees created:</p> <ol style="list-style-type: none"> Land Use Intermunicipal Servicing Governance <p>Interim Growth Plan</p> <ul style="list-style-type: none"> Work ongoing with consultant with September 2018 deadline <p>Regional Evaluation Framework</p> <ul style="list-style-type: none"> Work ongoing with Technical Advisory Group

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ISC: UNRESTRICTED
UCS2018-1171

Integrated Watershed Management Strategic Meeting – Deferral Request

EXECUTIVE SUMMARY

On 2018 May 28, an update on Upstream Bow River Flood Mitigation was provided to Council (UCS2018-0600). At that time, Council directed Administration to facilitate a strategic meeting of Council with respect to Integrated Watershed Management (IWM) and The City's resiliency plan no later than the fall of 2018. The purpose of this report is to provide an update to Council on the status of this work and request a deferral of the strategic meeting of Council on this topic to spring 2019.

The deferral is requested in light of the timing and significance of One Calgary deliberations this fall and will allow direction from Council's One Calgary service line discussions to be integrated into meeting content. This new timing also provides an opportunity to better align with Administration's annual reporting on flood mitigation and watershed management, which are typically presented in spring of each year.

The strategic meeting will provide an opportunity for Council to discuss the following items related to IWM:

- The overall purpose of Administration's ongoing IWM approach to water resource management;
- How The City's lines of service are connected to IWM and support The City's resiliency plan;
- Key watershed management issues facing The City;
- Watershed management actions undertaken by The City in 2018; and
- The impact of Provincial regulations and policy on The City and region with regards to watershed management.

In addition to the discussion, the strategic meeting will provide an opportunity for Council to hear from external subject matter experts on how IWM is applied elsewhere in the world and the benefits of such an approach to managing water resources.

ADMINISTRATION RECOMMENDATION:

That the Standing Policy Committee on Utilities and Corporate Services recommend that Council:

1. Receive this report as an item of Urgent Business for the 2018 October 15 Meeting of Council; and
2. Defer the integrated watershed management strategic meeting and direct Administration to return to a strategic meeting of Council, no later than 2019 Q2.

PREVIOUS COUNCIL DIRECTION / POLICY

On 2018 May 28, Council received an update on Upstream Bow River Flood Mitigation (UCS2018-0600). Council directed Administration to facilitate a strategic meeting of Council with respect to IWM and The City's resiliency plan no later than the fall of 2018.

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Integrated Watershed Management Strategic Meeting - Deferral Request

BACKGROUND

Following Administration's update on Upstream Bow River Flood Mitigation on 2018 May 28, Council identified a need to discuss The City's IWM approach. This meeting is an opportunity for an in-depth discussion on Administration's ongoing approach to IWM as it relates to the Water Utility's three lines of service and regional development demands. This meeting will also identify strategic opportunities to address Provincial regulatory or policy issues related to The City's watershed management work.

Administration provides annual watershed updates to Council on the Water Utility's goals of protecting our water supply, using water wisely, and keeping our rivers healthy. These updates summarize actions undertaken by The City to address topics such as water demand management, water quality, drought management, riparian protection, wastewater management, and stormwater management. Data in these areas are made available in Q1 and are included in the annual updates. A separate update on The City's flood mitigation program is also provided to Council annually to address the fourth watershed management goal of building resiliency to flooding. Administration intends to incorporate watershed and flood annual updates into the strategic meeting to help highlight connections between The City's work in these areas and its IWM approach.

INVESTIGATION: ALTERNATIVES AND ANALYSIS

Council's previous recommendation to hold a strategic meeting with respect to IWM and The City's resiliency plan no later than the fall of 2018 coincides with One Calgary deliberations occurring between 2018 September and 2018 December. Deferring the strategic meeting from fall 2018 to spring 2019 will support integrating direction from Council's One Calgary service discussions into the strategic meeting's content. Deferral will also allow updates on The City's watershed management goals and relevant data to be included in the discussion.

The main purpose of the meeting will be to clarify, increase understanding of, and undertake substantive discussion with Council on Calgary's most pressing water management issues. The meeting will also highlight the need for holistic decision making on water resources issues as they relate to the Water Utility's three lines of service. External subject matter experts will be brought forward to discuss how other jurisdictions are utilizing an IWM approach. Discussion will also cover how Provincial decisions impact The City given regional growth pressures and climate uncertainty and how we can approach these issues holistically.

Stakeholder Engagement, Research and Communication

Ongoing internal and external engagement occurs on various IWM initiatives. Engagement with stakeholders on related work is not affected by this deferral.

Strategic Alignment

The City's IWM approach supports Council's One Calgary directive for A Healthy and Green City. It also incorporates considerations to support A Well-Run City. This approach is also in alignment with the Province's Water for Life Strategy, which The City is dedicated to implementing.

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Integrated Watershed Management Strategic Meeting - Deferral Request

Social, Environmental, Economic (External)

An IWM approach to Calgary's water resources is critical to minimize long-term environmental risks to Calgary's water supply and the health of Calgary's watersheds. No social, environmental, or economic impacts are associated with this deferral.

Financial Capacity

Current and Future Operating Budget:

Current and future operating budgets are not impacted by this deferral request.

Current and Future Capital Budget:

Current and future capital budgets are not impacted by this deferral request.

Risk Assessment

No risks are identified due to this deferral request.

REASON(S) FOR RECOMMENDATION(S):

Deferral of the strategic meeting from fall 2018 to spring 2019 will accommodate the time needed by Council to complete One Calgary deliberations, facilitate integration of Administrations mitigation annual updates, and allow Administration to secure relevant external subject matter experts for the strategic meeting.

ATTACHMENT(S)

No attachments