



**PUBLIC AGENDA
STANDING POLICY COMMITTEE
ON ENVIRONMENT, UTILITIES
AND CORPORATE SERVICES**

Monday, September 11, 2017, 9:00 a.m.

Council Chamber, City Hall

Committee Members:

Councillor M. Loewen, Chair, Councillor H. Gough, Vice-Chair, Councillor T. Davies, Councillor S. Gersher, Councillor D. Hill, His Worship, Mayor C. Clark (Ex-Officio)

Pages

1. CALL TO ORDER

2. CONFIRMATION OF AGENDA

Recommendation

That the agenda be confirmed as presented.

3. DECLARATION OF CONFLICT OF INTEREST

4. ADOPTION OF MINUTES

Recommendation

That the minutes of meeting held on August 15, 2017, be adopted.

5. UNFINISHED BUSINESS

5.1 Water Utility Levels of Services [CK. 116-2, x 7500-1 and PW. 7550-1]

6 - 15

Consideration of this matter was deferred to the September 11, 2017 meeting.

Recommendation

That the Standing Policy Committee on Environment, Utilities and Corporate Services recommend to City Council:

That the information be received and that the current levels of service be maintained.

5.2 Absence Management and Disability Assistance Services Update [CK. 4655-1 and CP. 4655-001]

16 - 41

The Committee at its meeting held August 15, 2017 resolved that consideration of continuing with the pilot program with Bridges Health be deferred for one month and administration report on how the City may internally provide this support to its employees.

Recommendation

That the Standing Policy Committee on Environment, Utilities and Corporate Services recommend to City Council:

That the one-year pilot program with Bridges Health be extended for an additional one-year to enable a more complete assessment of the benefits of using a third-party vendor to provide disability and/or absence management support.

- 5.2.1 **Absence Management and Disability Assistance Program Update - Supplemental Information [CK. 4655-1 and CP. 4655-001]** 42 - 46

Recommendation

That the report of the Acting General Manager, Corporate Performance Department dated September 11, 2017, be received as information.

6. COMMUNICATIONS (requiring the direction of the Committee)

6.1 Delegated Authority Matters

[Approval of exemptions under The Noise Bylaw.]

6.2 Matters Requiring Direction

6.3 Requests to Speak (new matters)

7. REPORTS FROM ADMINISTRATION

7.1 Delegated Authority Matters

- 7.1.1 **Construction & Design 2015/2016 Annual Report [CK. 100-1 and TS. 100-01]** 47 - 95

Recommendation

That the report of the General Manager, Transportation & Utilities Department dated September 11, 2017, be received as information.

7.2 Matters Requiring Direction

- 7.2.1 **Capital Project 2427 - Repair Cosmo Park Riverbank Slope** 96 - 97

Failure - Budget Adjustment Request [CK. 1700-1 and TS. 1700-1]

Recommendation

That the Standing Policy Committee on Environment, Utilities and Corporate Services recommend to City Council:

That the transfer of \$303,018 from the Storm Water Management Capital Reserve to Capital Project #2427 – Repair Cosmo Park Riverbank Slope Failure, be approved.

7.2.2 Slope Remediation at Saskatchewan Crescent and 16th Street East - Request for Contract Extensions [CK. 4000-1 and TS. 7820-1] 98 - 101

Recommendation

That the Standing Policy Committee on Environment, Utilities and Corporate Services recommend to City Council:

1. That the Administration be given approval for the Engineering Services Agreement with Golder Associates to exceed 25% of the contract agreement and be extended by \$117,919.01;
2. That the Administration be given approval for Contract No.16-0557T - Saskatchewan Crescent and 16th Street Slope Remediation with Celta Construction Inc. to exceed 25% of the contract agreement and be extended by \$799,346.64; and
3. That the City Solicitor be requested to amend the appropriate agreements.

7.2.3 Waste Handling Levels of Service [CK. 116-2, x 7830-1 and PW. 7832-2] 102 - 121

Recommendation

That the Standing Policy Committee on Environment, Utilities and Corporate Services recommend to City Council:

1. That the City discontinue printing and mailing of the collection calendar for 2019 and continue to offer digital options;
2. That the City discontinue the extra post-Christmas garbage collection starting in 2018;
3. That the waste handling funding gap decision be deferred to the 2018 decision on waste utility options; and

4. That all other service level changes be considered during development and implementation of waste utility options.

7.2.4 An Overview of the Communications Division [CK. 230-1 and CP. 0365-005] 122 - 151

A PowerPoint will be provided.

Recommendation

That the report of the Acting General Manager, Corporate Performance Department dated September 11, 2017, be forwarded to City Council for information.

7.2.5 Service Saskatoon - Open Data Update Report [CK. 372-1 and 372-2] 152 - 175

Mr. Derek Leverington, MPath, will present a brief summary of the engagement report.

Recommendation

That the Standing Policy Committee on Environment, Utilities and Corporate Services recommend to City Council that:

1. That the City engage in an Open Data program; and
2. That the Administration be directed to develop a detailed strategy to implement the recommendations outlined in the MPATH report and report back by April 2018.

7.2.6 Climate Change Mitigation Business Plan - Opportunities [CK. 375-5 and CP. 7540-003] 176 - 203

Recommendation

That the Standing Policy Committee on Environment, Utilities and Corporate Services recommend to City Council:

1. That the information pertaining to Climate Change Mitigation Business Plan be received; and
2. That the allocation of Corporate Performance Department Capital Funding of \$20,000, in addition to \$80,000 of Federation of Canadian Municipalities grant funding, be referred to the 2018 Business Plan and Budget deliberations to support development of the Business Plan.

7.2.7 Corporate Environmental Management System [CK. 7550-1 and CP. 7556-010] 204 - 214

Recommendation

That the Standing Policy Committee on Environment, Utilities

and Corporate Services recommend to City Council:

That the allocation of Corporate Performance Department Capital Funding of \$80,000 to support planning for a corporate-wide Environmental Management System (EMS) be referred to the 2018 Business Plan and Budget deliberations.

- 7.2.8 Inquiry - Former Councillor P. Lorje (September 19, 2016) - Development of an Environmental Protection Bylaw [CK. 7550-1 and CP. 7556-010]** 215 - 219

Recommendation

That the report of the Acting General Manager, Corporate Performance Department dated September 11, 2017, be forwarded to City Council for information.

- 8. MOTIONS (NOTICE PREVIOUSLY GIVEN)**
- 9. GIVING NOTICE**
- 10. URGENT BUSINESS**
- 11. IN CAMERA SESSION (OPTIONAL)**
- 12. ADJOURNMENT**

Water Utility Levels of Service

Recommendation

That the Standing Policy Committee on Environment, Utilities and Corporate Services recommend to City council:

That the information be received and that the current levels of service be maintained.

Topic and Purpose

The purpose of this report is to provide the current levels of service supplied by the water utility to the City of Saskatoon. Established levels of service allow the administration to focus on value added work and set clear business objectives. This report also provides options for City Council to review should they choose to adjust specific levels of service.

Report Highlights

1. The water utility provides high quality and reliable service. The current water utility delivers services that are higher than the regulated standards and industry best practice.
2. The current level of service provides a balance between service and cost. Administration investigated reductions in service levels to save costs and found that these reductions did not show significant savings for the possible reductions in service.

Strategic Goals

This report supports the Strategic Goal of Continuous Improvement by providing more efficient ways of conducting business and ensuring an integrated approach to stakeholder communications.

This report also supports the Strategic Goal of Asset and Financial Sustainability as defining levels of service is the first step in implementing an asset management strategy.

Background

On May 15, 2017, the 2018 Budget Indicative Rate report was brought forward to the Governance and Priorities Committee. In that report, Administration reported that leading up to the 2018 Business Plan and Budget deliberations, a series of service level reports would be provided with options to increase or decrease service levels. Due to the desire to reduce the potential property tax increase in 2018, only cost saving changes to levels of service are provided in this level of service report.

Report

High Quality and Reliable Water Utility Service

The water utility is consistently ranked as one of the highest services in the Citizen Satisfaction Survey. The City of Saskatoon is home to the largest Water Treatment Plant and one of the highest level of certified treatment plants in Saskatchewan. The City continues to meet and exceed the standards set out in the Permit to Operate from the Water Security Agency (Provincial Regulator). The water utility is responsive to outages in service such as water main breaks, and continues to invest in preventative maintenance including strategic replacement and lining of water mains.

The Water Treatment Plant provides the highest inactivation of o-cysts in the province (eg. Cryptosporidium and Giardia), as well as the maximum viral disinfection possible. The water pressure and flow meets the needs of businesses, residents and the Saskatoon Fire Department exceeding the American Water Works Association recommended standards. Water quality is closely monitored by the Water Lab, which is a member of the Canadian Association for Laboratory Accreditation (CALA).

Current Level of Service Balances Service and Cost

The Administration evaluated three options for ways the service level could be adjusted and the cost impact of each option. These costs and changes in service levels were estimates and further research on costs would be required before implementation. The options explored were:

1. Introduction of mandatory odd and even watering in the summer months. This action would reduce the peak day demand on the Water Treatment Plant and allow more growth before additional capacity would be required at the Water Treatment Plant. This option saves funds by delaying capital expansion; however, lost revenue and enforcement would cost the City.
 - The net benefit was estimated to be \$18,000 annually.
2. Extending repair times on water main breaks from 48 hours to 72 hours. This action would result in a longer wait for resident's water mains to be repaired and would reduce the reliance on emergency contractor work.
 - The change in timeframe is estimated to reduce the reliance on contractors approximately 12 times per year saving the City \$36,000.
 - Going from 48 hours to 24 hours would require 24-hour crew coverage for an estimated annual cost of \$1.3 million (16 FTEs).
3. Increase the number of allowable breaks in water mains from six to nine over a 25-year period. This level of service change saves capital funding on replacements of water mains.
 - When operating costs of more water main breaks and the long-term replacement costs were factored into this option, it was calculated that this reduced level of service would increase the cost of service by \$525,000 annually.

Based on the low financial value that each of these significant reductions in service level provide, the Administration determined that the current level of service, in these areas,

provide good value to customers for the costs. As a result of the value of the current level of service, no changes are being recommended.

Options to the Recommendation

City Council could direct the Administration to further explore any of the optional level of service changes above or others they desire to be investigated.

Communication Plan

If City Council desires to explore the alternative levels of service, a communication plan will be developed for each.

Policy Implications

There are no policy implications for the recommendation; however, selecting a required odd and even watering schedule to reduce peak day demands would require a change to current policy regarding water use.

Financial Implications

There are no financial implications for the recommendation of keeping the current levels of service. Selecting an option to change the level of service would require more detailed financial assessments on the impact of budgets and water rates.

Other Considerations/Implications

There are no public and/or stakeholder involvement, environmental, privacy, or CPTED implications or considerations.

Due Date for Follow-up and/or Project Completion

The customer levels of service will be reviewed annually based on citizen feedback from the Citizen Satisfaction Survey. Recommended changes to the level of service will be reported to City Council for approval.

Public Notice

Public Notice pursuant to Section 3 of Policy No. C01-021, Public Notice Policy, is not required.

Attachment

1. Service Level for Water Utility

Report Approval

Written by: Russ Munro, Director of Water & Waste Stream
Reviewed by: Reid Corbett, Director of Saskatoon Water
Approved by: Angela Gardiner, Acting General Manager of Transportation & Utilities

Service Level for Water Utility

Scope

Service Level (SL) documents are prepared to allow customers of the City of Saskatoon (City) to review and understand the services *currently* provided. This document includes activities completed under the Water Utility service line. This service is completed by various divisions in the City.

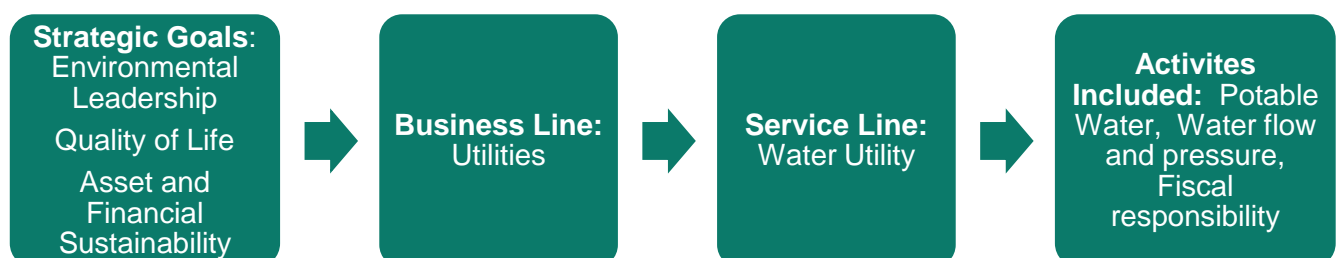
Service Overview *what we do*

Saskatoon has one of the safest water supplies in North America. The Water Utility takes pride in the quality of the water supplied, and are committed to ensuring all precautions are taken to keep citizens safe when work or construction is occurring on the water supply system.

Raw Water is taken directly from the South Saskatchewan River through the raw water intake facility located upstream of the Water Treatment Plant. The water is screened, treated, (softened and flocculated), settled, filtered, disinfected and distributed to almost 300,000 Saskatchewan residents via a network of water mains and three potable water storage reservoirs with capacity of 114 million litres. The stored water allows the Water Treatment Plant to be more efficient by running at a constant rate. The City's water treatment and distribution systems are regulated by a "Permit to Operate a Waterworks" issued by the Water Security Agency. Drinking water quality is further regulated by Health Canada's *Guidelines for Canadian Drinking Water Quality* and Saskatchewan Environment's *The Water Regulations, 2002, The Environmental Management and Protection Act, 2010 (EMPA)* and *The Waterworks and Sewage Works Regulations*. Saskatoon Water operates the Water Treatment Plant and reservoirs. The Water and Waste streams division (Water and Sewer section) operates the distribution system from the treatment plant and reservoirs to homes and businesses. Water quality is monitored 24 hours a day, 365 days a year which is in part why Saskatoon's Water has consistently received the highest Saskatoon citizen satisfaction rating of all civic services.

Purpose: *why we do it*

Water Utility services are provided to give residents and businesses a clean and safe water supply and is deemed one of the top priorities of the citizens of Saskatoon. Treated drinking water is one of the largest contributors to human health increases in Saskatoon.



Programs within Service Line	Service Attributes or Values	Service Level Outcomes	Customer Performance Measures
<p>Provide Potable Water for Consumption.</p>	<p>Safe, Quality of Life, Aesthetic</p>	<p>From the treatment of source water at the Water Treatment Plant to its distribution to homes and businesses, the objective of the City of Saskatoon is to ensure high quality of water is distributed. Water is cool odourless, safe to drink and aesthetically pleasing.</p> <p>Our various treatment and monitoring activities ensure The City of Saskatoon exceeds regulatory standards and expectations set out in their Permit to Operate issued by the Water Security Agency (WSA).</p> <p>The Lead Water pipes in the system will be replaced to meet immediate priorities for clean water and a healthier City of Saskatoon.</p>	<p>Saskatoon currently meets or exceeds provincial and federal water standards. A copy of the standards can be found on Saskatchewan Water Security Agency's website using this link.</p> <p>All remaining lead service lines in water distribution system will be replaced by 2026.</p> <p>Any disruption in the system will result in a Drinking Water Advisory (DWA) and lab testing before the advisory can be lifted.</p> <p>80% of water quality enquiries are addressed over the phone. The water lab will work with the customer to establish the cause of the issue and provide awareness on ways to prevent reoccurrence.</p> <p>If an enquiry is not resolved over the phone, a home visit will be arranged to test the water within 48hours. A sample is collected and tested within 48 hours to ensure water is safe for consumption.</p>

<p>Provide Water to Saskatoon Fire Department for fire Suppression Purposes.</p>	<p>Reliable, Responsible</p>	<p>The pressure in the Water Distribution System is operated to maintain adequate pressure in the system for fire suppression purposes.</p> <p>Water Hydrants are inspected to ensure they are operating at capacity, highly visible and accessible in the case of an emergency.</p>	<p>The minimum water pressure recommended by the American Water Works Association (AWWA) is maintained when the hydrants are in operation.</p> <p>We currently inspect 80% to 100% of over 7,100 Hydrants in the system on an annual basis.</p> <p>Our annual goal is to ensure:</p> <ul style="list-style-type: none"> • 100% Hydrant inspection occurs in the winter season. • 50% Hydrant inspection occurs in the summer season.
<p>Provide sufficient pressure and flow for residential and commercial use.</p>	<p>Reliable, Responsible</p>	<p>Saskatoon's home and business water demands will be met at a sustained normal operating pressure.</p> <p>The provision of high and reliable water pressure at all parts in the Water Distribution System is generally achieved by meeting Fire Flow requirements for those areas.</p> <p>Sufficient water pressure is used to clean the sewer lines across the city.</p>	<p>Adequate water pressure and flow for home and business use is maintained in periods of peak demand.</p> <p>Following an interruption in service that can affect water flow and pressure:</p> <ul style="list-style-type: none"> • A Drinking Water Advisory will be provided to all homes and businesses affected. • Alternate water supply is provided to those affected within 8 hours if the issue remains unresolved. • Water will be restored in 1-2 days except for extenuating cases.
<p>Protect the Environment</p>	<p>Environmental Stewardship</p>	<p>Proactively protect and preserve the City's primary source of raw water. The South Saskatchewan River and its surrounding watershed (drainage area) is protected to ensure Saskatoon's water</p>	<p>Water conservation initiatives will be made available to engage the public through communications on the website, YouTube Videos,</p>

		<p>supply is sustainable and impact to the environment is reduced.</p> <p>The City of Saskatoon is a partner in the South Saskatchewan River Watershed Stewards Inc. This organization works within the watershed to implement programs and initiatives that will protect the water resource.</p>	<p>conservation education and water week awareness.</p> <p>Systems are operated, inspected and maintained so that no Permit to Operate violations occur.</p>
Fiscal Responsibility	Asset preservation, Reliable, Responsive	<p>Provide cost effective asset maintenance solution, including preventative maintenance programs. The asset preservation efforts are geared towards risk mitigation, longevity of the water system including: Water Treatment Plant, Water Mains, Valves, and Hydrants.</p> <p>Saskatoon's water rates are designed to encourage conservation which defers the need for high capital intensive capacity projects.</p> <p>Rates are appropriate based on long term financial plan.</p>	<p>With current approved funding levels for water main replacement, the number of water mains in poor condition is getting smaller over time.</p> <p>Based upon the observed life cycle of water mains in Saskatoon, a water main is considered in poor condition when it meets certain criteria;</p> <ul style="list-style-type: none"> • It has had 6 or more breaks in the last 25 years • It does not meet current capacity standards. <p>Water main replacement is prioritized based on capacity (volume of water), the number of people serviced and the number of historic breaks (last 25 years), the number of recent breaks (last 5 years), as well as optimizing the use of our resources by working with Roadways and Operations and other service areas.</p>

Resource Allocation: *what does it cost*

Service Line	Number of Services	2016 Budgeted Cost	2016 Actual Cost	Variance
Water Utility	5	\$68,917,600.00	\$67,091,893.64	\$1,825,706.36

Service Line	Number of Services	2016 Actual Revenue	2016 Actual Cost	Variance
Water Utility	5	\$70,504,000.00	\$67,091,893.64	\$3,412,106.36
				The positive balance is transferred to the stabilization and capital reserve.

Some of the cost to provide these service levels broken down by activity in the previous year are:

Service Activity	Total Cubic Meters of Water Produced in 2016	Budgeted Cost per activity	Actual Cost per Activity	Variance
Water treatment, pumping and Storage	44.1 million cubic meters in 2016	\$0.34	\$0.30	\$0.04
Water Distribution to homes and businesses (includes metering services)	44.1 million cubic meters in 2016	\$0.37	\$0.36	\$0.01

Financial Assumption

- In 2016, the Water Utility Service Line paid a Return on Investment of \$1,740,000 which was transferred to the City of Saskatoon's general fund as well as \$5,291,000 grant in lieu of taxes.
- Unit costs include a prorated portion of Water Administration, General and Corporate Service charges.

Supporting Information

- The revenue from the water utility funds the Infrastructure Services Capital Reserve for water distribution and wastewater collection system rehabilitation and replacement projects needed to address aging infrastructure. In 2013, a Redevelopment Levy was added to the Infrastructure Levy, with a four-year phase-in period to generate \$4.0 million annually by 2016. In 2014, a Roadway Levy was added to the Infrastructure Levy with a three-year phase-in period to generate \$6.0 million annually by 2016.

Constraints

- Increased demand on infrastructure entered into a “replacement era” where asset sustainability and reliability will be at risk if not properly managed. Some of the infrastructure is over 100 years old and does not meet design standards for new development areas. Monitoring and assessing the physical condition and capacity of the infrastructure has been initiated as a foundation for an asset management program to better maintain our assets, prolong life, and increase resiliency.
- Cumulative impacts of infill development are placing higher demands on the carrying capacity of existing water and sewer infrastructure. More infill reduces greenspace and increases surface runoff so appropriate policies are needed to minimize surface flooding.

Supporting References:



Optional Service Levels:

The table below provides service level options and associated costs should there be a need or desire to adjust the service level.

No.	Service Level Option	Description of Change in Service Level Outcome	Estimated Annual Cost 2016	Annual Budget Allocation 2016	Overall Funding Result
1	Introduce 'Peak Shaving' initiative (odd/even watering of lawns).	Represents the offset to Operating expenditures which in turn will impact rate structure.	\$68,899,600	\$68,917,600	Savings of \$18,000 annually.
2	Change guidelines for water main replacement from 6 breaks in 25 years to 9 breaks in 25 years. The average number of breaks in a year would increase from 240 to 275.	Annual capital funding for replacement would reduce in the short-term. Over the long-term, replacement costs would increase due to a built-up backlog of failed water mains requiring replacement. Short-term and long-term maintenance costs would increase due to increased water main breaks.	\$69,442,600	\$68,917,600	Shortfall of \$525,000 annually.
3	Change Watermain break response time from 48 hours to 72 hours.	Reduced reliance on contractor repairs will result in an estimated reduction in contractor calls to 12 calls per year at \$3,000 per repair.	\$68,881,600	\$68,917,600	Savings of \$36,000 annually.

Absence Management and Disability Assistance Services Update

Recommendation

That the Standing Policy Committee on Environment, Utilities and Corporate Services recommend to City Council:

That the one-year pilot program with Bridges Health be extended for an additional one-year to enable a more complete assessment of the benefits of using a third-party vendor to provide disability and/or absence management support.

Topic and Purpose

The purpose of this report is to extend the one-year pilot program with Bridges Health by one year. The results from March to December 2016 continue to show positive results; however, the current information does not enable us to conclude that this strategy will be successful on a long-term basis.

Report Highlights

1. The Bridges Health Pilot Report for the period March to December, 2016, has been received. The employees currently referred to the program have experienced a 9% reduction in absence usage during this period.
2. The program had 83 referrals during this period. Of these referrals, 76 have been included in the Bridges Health Pilot Report.
3. Of the 76 referrals, 11 have been excluded due to a range of case specific circumstances. The report considers 65 referrals as part of the pilot group.
4. Bridges Health has reported that 77% (50 out of 65) are experiencing a reduction in sick leave in the pilot program.
5. 15 employees have experienced an increase in absences.

Strategic Goal

This initiative supports the Strategic Goal of Continuous Improvement as it supports employees returning to work sooner, which contributes to employee engagement and organizational productivity.

Background

The City of Saskatoon (City) entered into a one-year pilot program with Bridges Health in accordance with the program policies and procedures documented in the Disability Assistance Program (DAP) manual and the Collective Agreement between the City and The Amalgamated Transit Union, Local No 615 (ATU) and between the City of Saskatoon and SCMMA.

This pilot program involves Saskatoon Transit employees who are members of the ESA, SCMMA and ATU. The employee group consists of employees with illnesses/absences of 10 days or greater within a 12-month period, which is the current criteria of the City's DAP. Illnesses/absences of 10 days or greater include:

- An employee is off 10 days in a row.

Absence Management and Disability Assistance Services Update

- An employee goes over 10 days in casual absences.
- An employee provides notice they will be off for more than 10 days.

The original duration of the pilot involved a 12-month period that commenced March 31, 2016. The agreement for the pilot program was that the number of referrals does not exceed 52 over the timeline of the project.

At Standing Policy Committee on Environment, Utilities and Corporate Services held on July 19, 2016, it was resolved that the matter be deferred and the Administration report at the appropriate time (one or two quarters into the pilot project), including comparative data within the project scope and current pilot project.

Report

The Bridges Health Pilot report provides data on employees referred between April and December 2016. The total number of employees included in this report are 76.

	Group Name	Number of Employee Participants	Percentage of Employee Participants	Definition
1	Reduction Group	50	66%	Group of Employees in which Bridges Health Managed Absences for. This group experienced reduction in absenteeism
2	Increase Group	15	20%	Group of Employees in which Bridges Health Managed Absences for. This group experienced increase in absenteeism
1&2	Pilot Group	65	86%	Group of Employees in which Bridges Health Managed Absences for. Includes reduction group and increase group (1&2).
3	Exclusion Group	11	14%	Group of Employees in which Bridges Health Managed Absences for. However, due to internal circumstances within the City of Saskatoon, our interventions were not able to be utilized. This is further explained in the report.
	Total	76	100%	

The City has also conducted its own review on the impact of this pilot on absenteeism. There is evidence of a decrease in aggregate absenteeism during this period and coincidental with the commencement of the pilot project. In addition, there is also evidence of a decrease in absenteeism in employees with greater than 18 days absence in 2015 who participated in the pilot.

Options to the Recommendation

One option to the recommendation is to conclude the pilot project and put in place a dedicated internal resource to assist Saskatoon Transit with its disability and/or absence management programs.

Communication Plan

Materials will be developed to inform stakeholders of any changes in length or scope to the pilot program. Anticipated activities include adding information to the City's website, letters to stakeholder groups, and developing a hand-out of frequently asked questions.

Financial Implications

The financial implications for the pilot project is anticipated to be \$70,000 for an additional year. This estimate is based on 50 employees participating in the extended project. It is anticipated that it will require additional resources if this service is provided internally. The estimated cost of the project is \$75,000 on an annual basis supported by the Transit Operating Budget.

Other Considerations/Implications

There are no public and/or stakeholder involvement, policy, environmental, privacy, or CPTED implications or considerations.

Due Date for Follow-up and/or Project Completion

There is no follow-up and/or project completion dates.

Public Notice

Public Notice pursuant to Section 3 of Policy No. C01-021, Public Notice Policy, is not required.

Attachments

1. City of Saskatoon Summary Report
2. Bridges Health – Pilot Report – Absence Management Partnership

Report Approval

Written by: Dan Tkatchuk, Compensation and HR Systems Supervisor
Reviewed by: Marno McInnes, Director of Strategic Negotiations, Total Rewards and Workforce Analytics
Approved by: Jeff Jorgenson, Acting General Manager, Corporate Performance Department

CP - EU&CS DT - Absence Management and Disability Assistance Services Update

CITY OF SASKATOON SUMMARY REPORT

The report provides an overview of the impact of the Bridges Health pilot project at Saskatoon Transit and its impact on the absenteeism rate and supplements the report provided by Bridges Health.

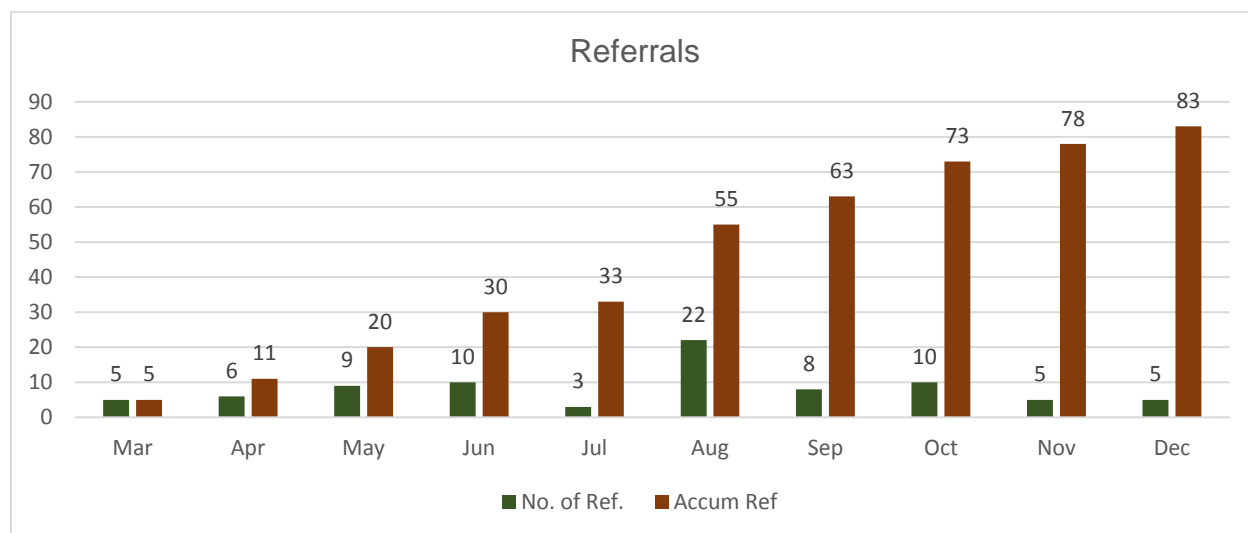
The scope of this pilot includes Saskatoon Transit employee which are represented by ESA, SCMMA and ATU Local 615.

Scope of the Pilot Project

The scope of the pilot was to include up to 52 employees. The bulk referral method was replaced with a rolling referral method and employees have been referred to this pilot over a period of time. The current number of employees assisted by Bridges Health is approximately 90.

Referrals

There were 83 referrals between April and December, 2016. Of those referrals 73% have been employed by Saskatoon Transit since 2013. Eighty two percent were employed in 2015 enabling us to compare sick leave utilization statistics for the period prior to the pilot period against the pilot period (March to December).

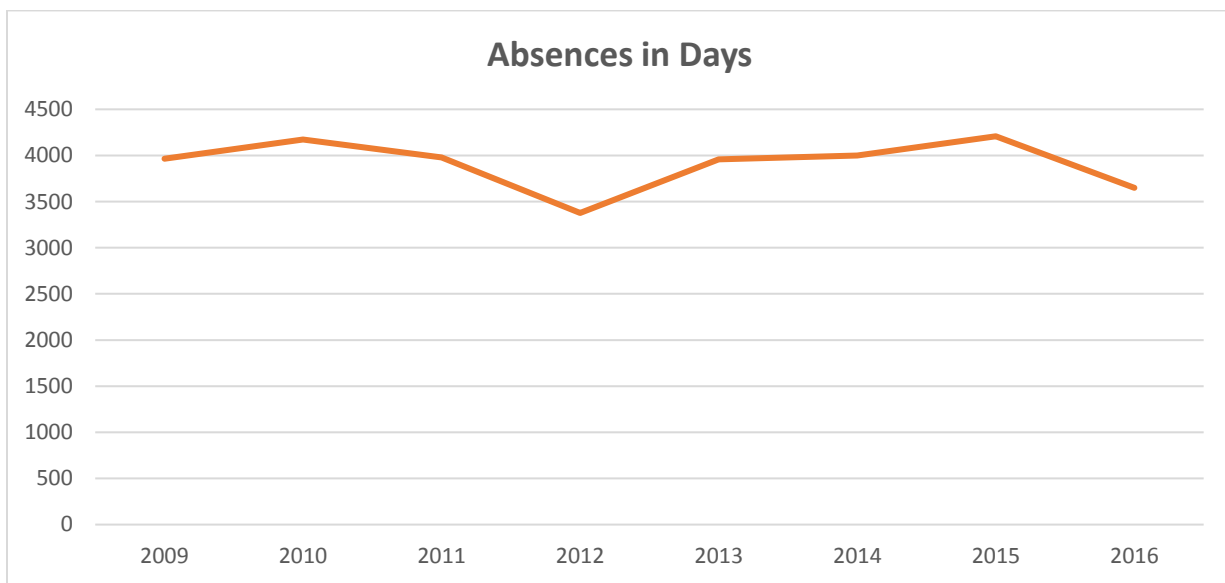


The intended scope of the pilot project was to include 52 employees for a period of 12 months to determine the impact of using an external service such as that provided by Bridges Health. The current pilot project used a rolling referral approach rather than the preferred bulk referral method. This report looks at 83 employees that entered the program before December 2016.

Aggregate Absenteeism Comparison Data

The absenteeism trend provides a comparison over the last eight years of the aggregate absenteeism data. The following data includes paid sick absences but does not include Sick Bank or Unpaid Sick utilization.

The City and ATU were involved in protracted negotiations which impacts the aggregate data in 2014. The following charts have been adjusted to account for the effect of the one month lockout in 2014. The adjustment is based on the assumption that, had the lockout not occurred the utilization during the lockout period would have been consistent with the average utilization in 2014.

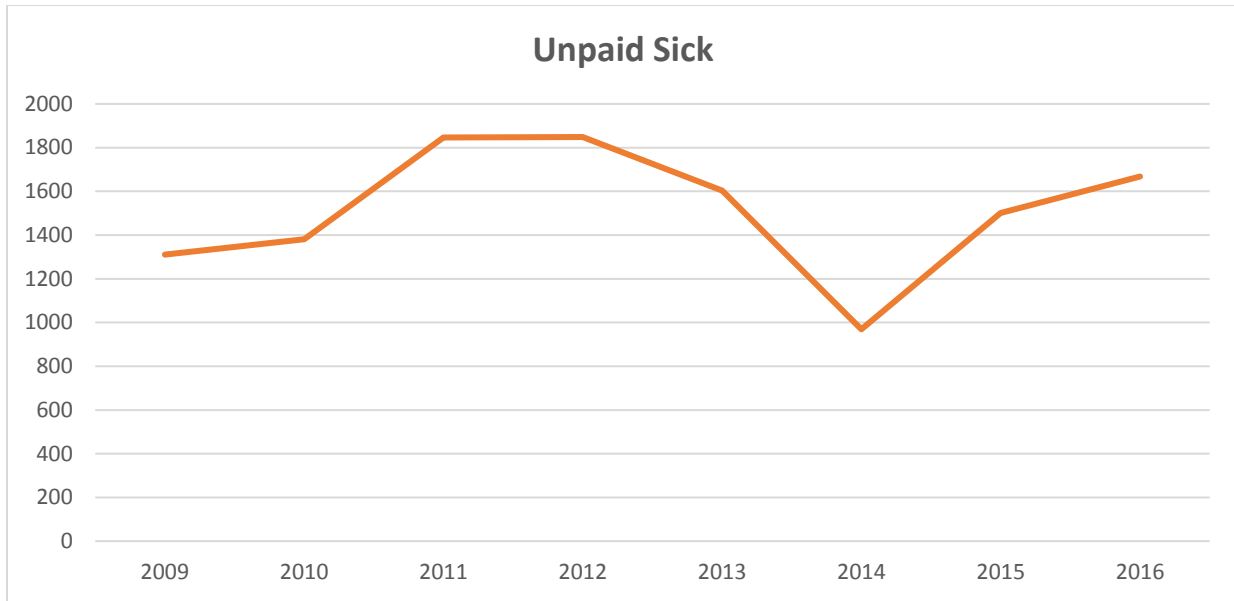


There was an upward trend in absenteeism from 2012 to 2015 with a noted decrease (13.2%) in the year the Bridges pilot was introduced.

There is a decrease in total sick related paid absenteeism from 4,208 days (2015) to 3,649 days (2016). This resulted in individual absenteeism decreasing from 9.2 days/employee to 8.0 days/employee.

Aggregate Unpaid Sick Leave Comparison

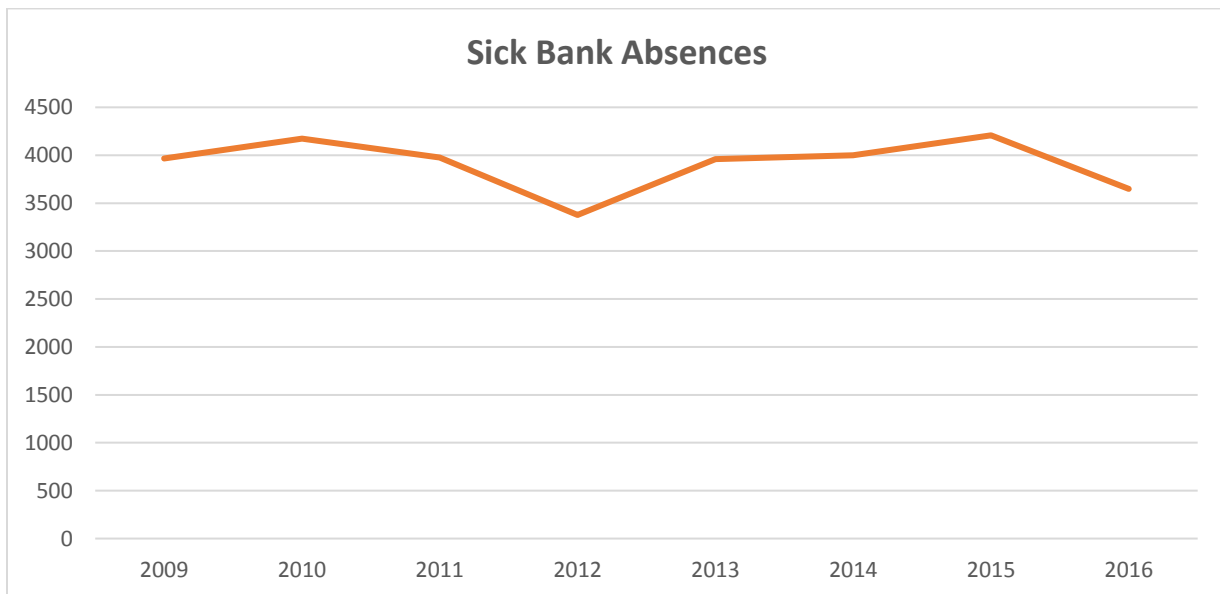
There was an increase in unpaid sick utilization over the last four years. The following data does not include Sick Bank or Paid Sick utilization.



There was an upward trend in unpaid sick from 2015 to 2016. Unpaid sick is coded when an employee is absence due to sickness but does not have sick credits available. No medical verification is provided for these absences.

Long Term Absences

Longer term absences are covered by the Sick Bank/Long Term Disability provisions contained in the collective agreement.

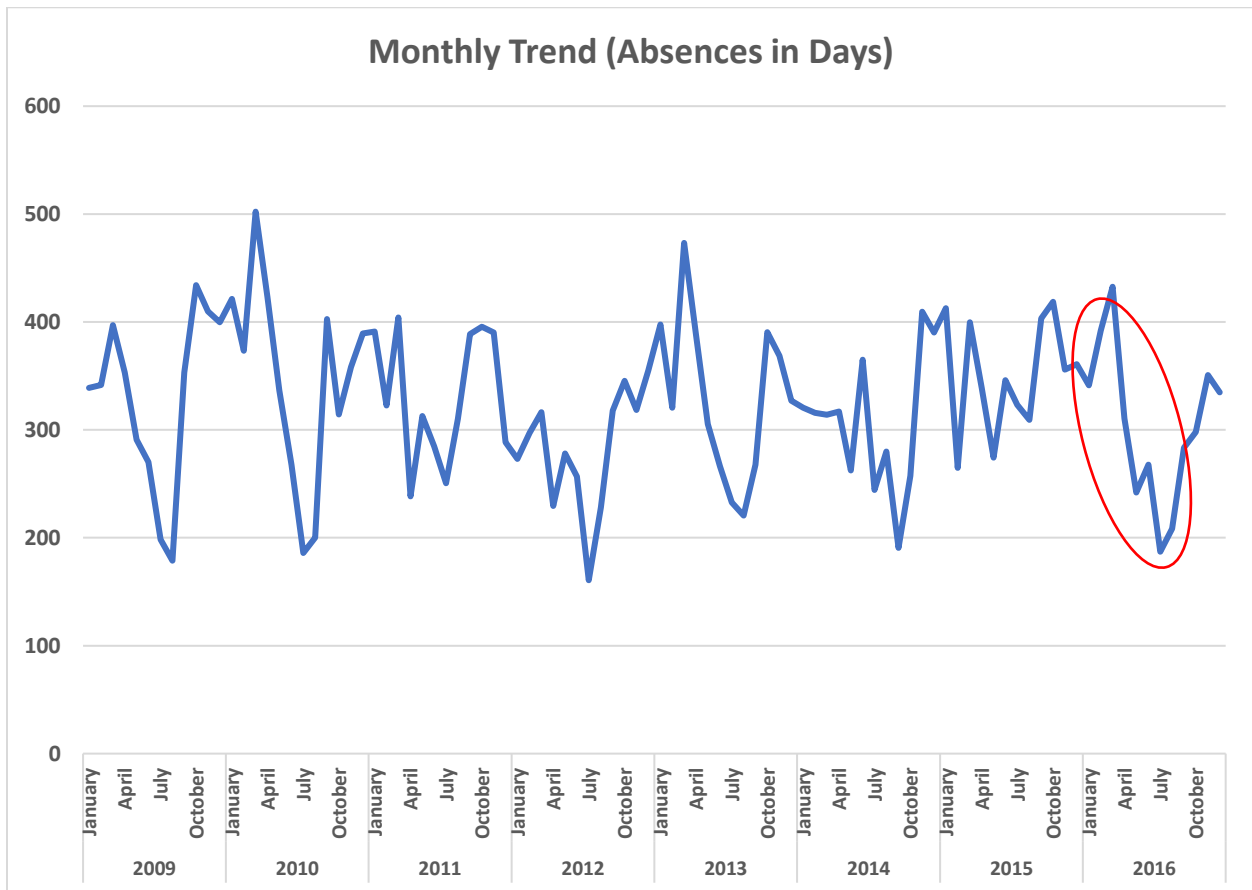


There was an upward trend in sick bank utilization from 2011 to 2015 with a substantial decrease (31.8%) in the year the Bridges pilot was introduced. This shift may be attributable to a combination of changes such as the Sick Bank Committee

representation, the small number of employees involved with the sick bank and to a lesser extent the pilot.

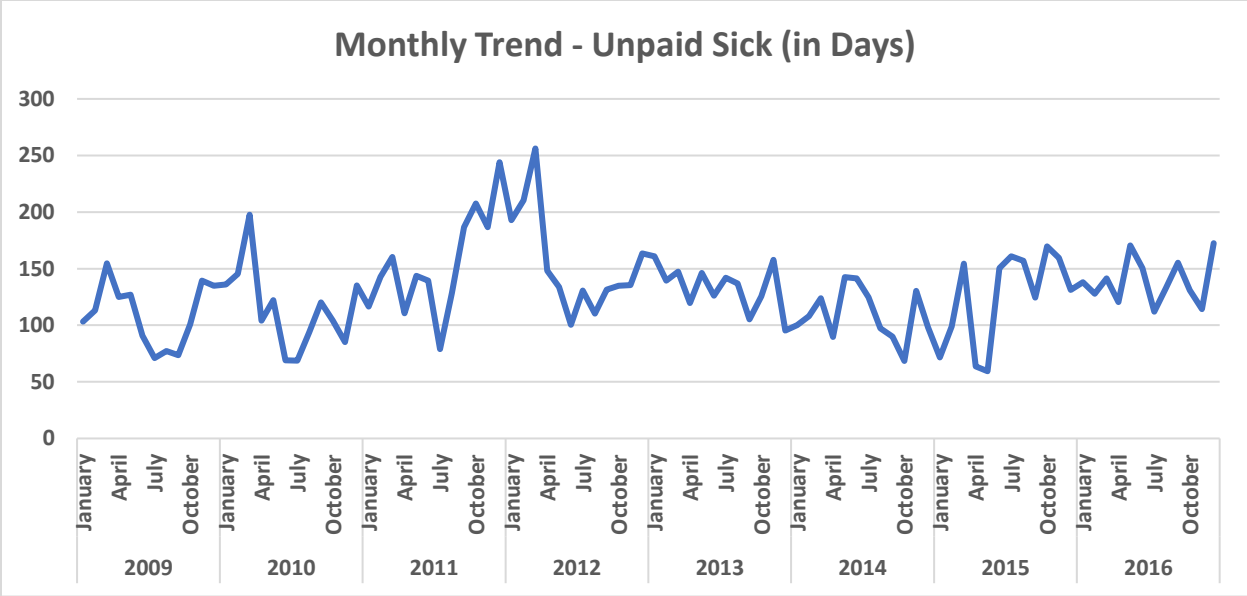
The number of employees on sick bank at any point in time is relatively small when compared to the overall employee populations at Saskatoon Transit resulting in the potential for considerable variations.

Monthly Trends

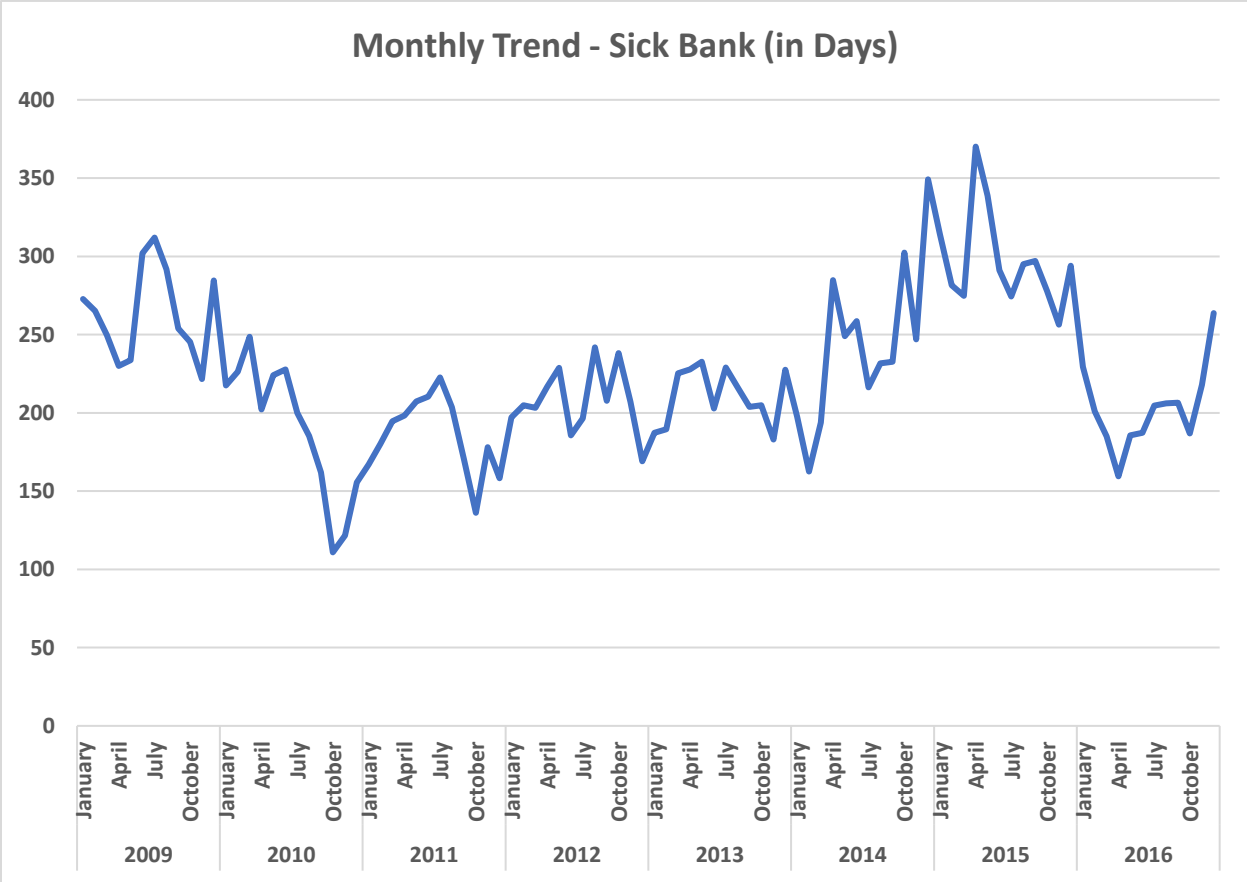


There was a decrease in aggregate absenteeism in the second quarter of 2016 coincidental with the commencement of the pilot project. The fact that the initial referrals to the pilot project involved a small number of employees the reduction in absenteeism is also related to factors other than the pilot program itself.

While the pilot project cannot be directly credited with the above reduction, the introduction of a program of this type may have an indirect impact. The simple announcement of a significant workplace program will often change behaviour.



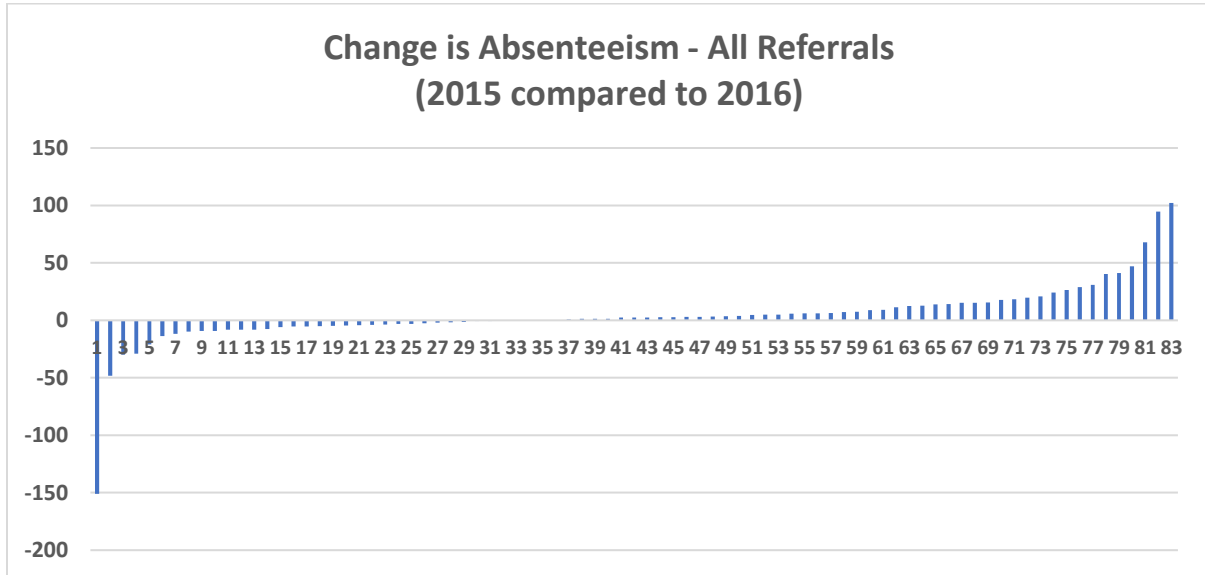
Actual unpaid sick leave utilization has not significantly changed when compared to the 12 month period preceding the pilot project being introduced.



The sick bank involves a smaller number of employees (approximately 20 or less employees) so the data set variability is more dramatic and impacted significantly by a few employees changing their status.

Direct Program Impact

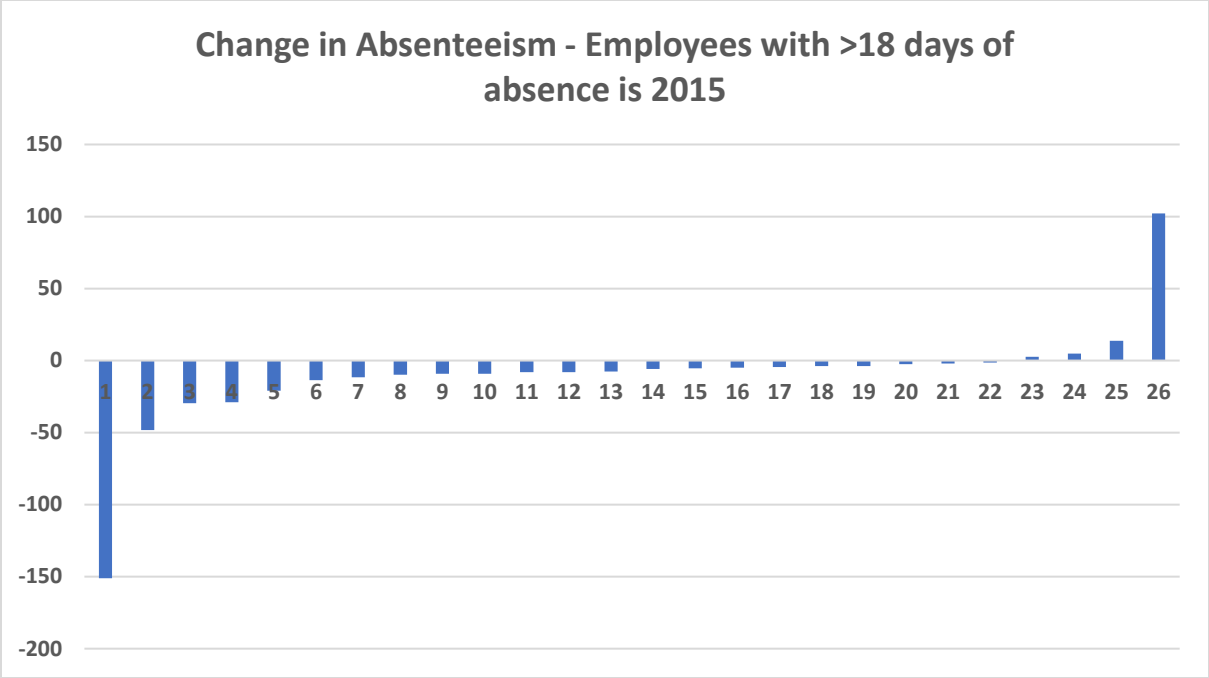
The effectiveness of the pilot project was considered through a comparison of the employee's behaviours between April and December, 2016 and their absenteeism behaviour in the previous 12 months. The results are mixed.



Approximately 32% of the above group shows an increase due to the fact that they had less than 10 days absence in 2015.

The all referral comparison does not provide a mixed result in terms of the pilot's success.

Within the collective agreement employees with greater than 10 years accrue 18 days of sick credits a year. Twenty six employees (31.3%) that participated in the pilot project had in excess of 18 days of absences in 2015.



Of the twenty-six employees with greater than 18 days of absences in 2015, twenty two (84.6%) saw a reduction in 2016.

Confounding Events and Issues

Although the data provides some preliminary insight into the program’s potential there are numerous intervening factors that are relevant to this pilot project.

Project Implementation

This is a short duration pilot project which is not particularly helpful in understanding the project’s longer term benefits and sustainability in relation to absenteeism reduction. In addition, this pilot project was introduced incrementally so the full sample size in this project was not achieved until the 3rd quarter of 2016. Normally pilot projects of this nature involve a bulk referral to enable a reasonable assessment of the benefits over a specific period of time.

Project Launch Complications

There were a number of issues in relation to the launch of the pilot project that has undoubtedly impacted the results. There was some confusion in relation to roles and responsibilities in connection with the City’s absence management program, referrals to and from the pilot as well as some staffing issues during the early stages of the pilot’s implementation.

Return to Work Limitations

There are also examples of referrals managed by the pilot that were delayed due to challenges of having opportunities to return employee back in the workplace resulting in employee’s remaining on sick related benefits.

Closing Comments

In 2015, Saskatoon Transit had an average of 19.60 days of absence/employee (Sick and or WCB related absences). In 2016, this was reduced to 17.17 days of absence/employee. This is a 12.4% reduction in absences.

The work of managing absenteeism requires proper support regardless of whether it involves an external provider, it is managed internally or handled using some combination of the two options.

2017-08-04



Statistical Results on the Partnership
between the City of Saskatoon Transit,
and Bridges Health

Pilot Report

Absence Management Partnership

Attention: Marno McInnes
Dept: Human Resources

Developed by:
Leon Ferguson, Vice President
Adelle Stewart, Director of Operations

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Overview:

✚ Introduction:

Bridges Health engaged with the City of Saskatoon and Saskatoon Transit on a one-year pilot project in which Bridges Health is facilitating the Disability Assistance Program (DAP).

✚ Scope of Project:

Employees are referred to Bridges Health under the following following the same criteria as the City of Saskatoon's DAP process:

- once they reach a cumulative ten (10) days of absence
- once they reach 10 days in a row of absence
- if they provide notice of being off for more than 10 days for future absence

Bridges Health has a similar yet enhanced program called Managed Abilities Program (MAP) but due to the nature of Saskatoon Transit being without a collective bargaining agreement it was prohibitive to introduce due to internal issues, including industrial relations issues, the MAP program was not able to be implemented in its fullest capacity.

✚ Number of Employees:

The full scope of the pilot was initially up to 52 employees referred. However, due to the length of time for the pilot to reach that number by a rolling referral platform, Bridges Health has extended the scope of the project and continued to accept referrals into 2017.

✚ Current State As of April 2017:

The current number of employees Bridges Health is assisting is 92.

✚ Challenges:

1. The pilot is based on the City of Saskatoon's Disability Assistance Program and was intended to maximize the benefits of the existing program. Bridges Health recommended a full implementation of our proprietary Managed Abilities Program (MAP). A full implementation of MAP would improve results as well as extend to WCB Absence Management Claims being attended to on the day of incident.
2. Employees were referred over the course of the year, as they reached their collective bargaining agreement absence usage (10 occurrences). Results from full MAP Program implementations typically show a 20-30% reduction in absenteeism. The main driver and differentiator in this is that employees are usually referred based on previous 12 months absence rates. I.e: all employees who utilized more days that collectively bargained for are referred in bulk.
3. The pilot was implemented during collective bargaining and furthermore through a work to rule campaign.

Report Parameters and Definitions:

This report provides data on employees referred between April and December 2016. The total number of employees referred in that time period are 76.

	Group Name	Number of Employees	Percentage of Employees	Definition
1	Reduction Group	50	66%	Group of Employees in which Bridges Health Managed Absences for. This group experienced reductions in absences.
2	Increase Group	15	20%	Group of Employees in which Bridges Health Managed Absences for. This group experienced increases in absences.
1&2	Pilot Group	65	86%	Group of Employees in which Bridges Health Managed Absences for. Includes reduction group and increase group (1&2).
3	Exclusion Group	11	14%	Group of Employees in which Bridges Health Managed Absences for. However, due to internal circumstances within the City of Saskatoon, our interventions were not able to be utilized. This is further explained in the report.
	Total	76	100%	

Bridges Health Service Results - Pilot Group

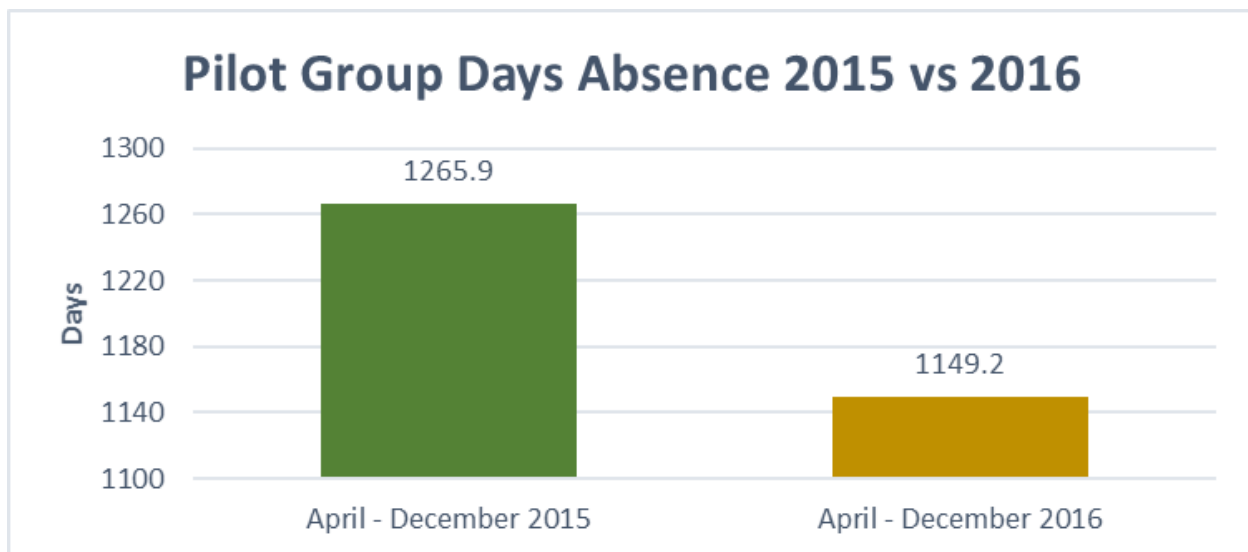
	Group Name	Number of Employees	Percentage of Employees	Definition
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	Total	76	100%	

These results show the Pilot group is experiencing a 9% reduction in absence days.

For an overall comparison, absences of the pilot group were measured from April to December 2015, to April to December 2016.

This comparison is disadvantageous to Bridges results, due to the “rolling referral” method used during the pilot (i.e.: An Employee who was not referred to Bridges until September 2016 – their absences from April to August which should not be included in Bridges results, are). This is a barrier to completely accurate results.

Even as such, the results show the pilot group experiencing a 9% decrease in absence days.

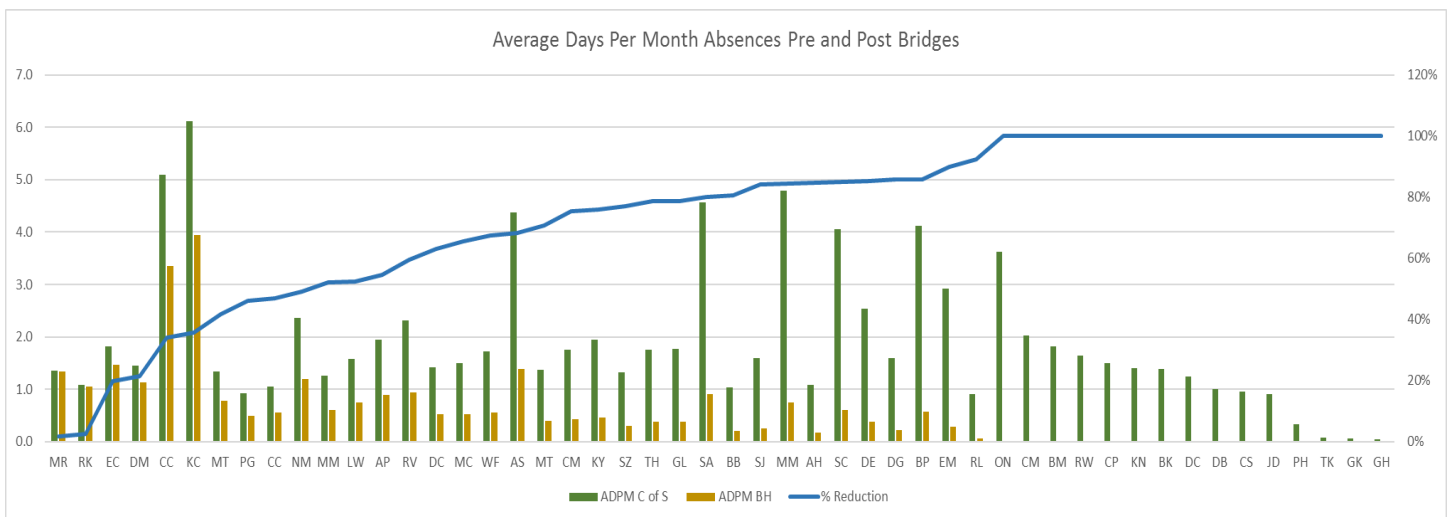


The above graph shows the absence days utilized by the pilot group in 2015 versus 2016 when Bridges facilitated the DAP Program for the 76 employees referred in this time period. As indicated, there is a 9% reduction in the pilot group.

Bridges Health Results - Reduction Group:

	Group Name	Number of Employees	Percentage of Employees	Definition
1	Reduction Group	50	66%	Group of Employees in which Bridges Health Managed Absences for. This group experienced reductions in absences.
2	Increase Group	15	20%	Group of Employees in which Bridges Health Managed Absences for. This group experienced increases in absences.
1&2	Pilot Group	65	86%	Group of Employees in which Bridges Health Managed Absences for. Includes reduction group and increase group (1&2).
3	Exclusion Group	11	14%	Group of Employees in which Bridges Health Managed Absences for. However, due to internal circumstances within the City of Saskatoon, our interventions were not able to be utilized. This is further explained in the report.
	Total	76	100%	

The below graph demonstrates 50 employees (77%) of the Pilot group are experiencing attendance reductions (shown in average days per month utilized in April to December 2015 before Bridges, to April to December 2016 with Bridges).



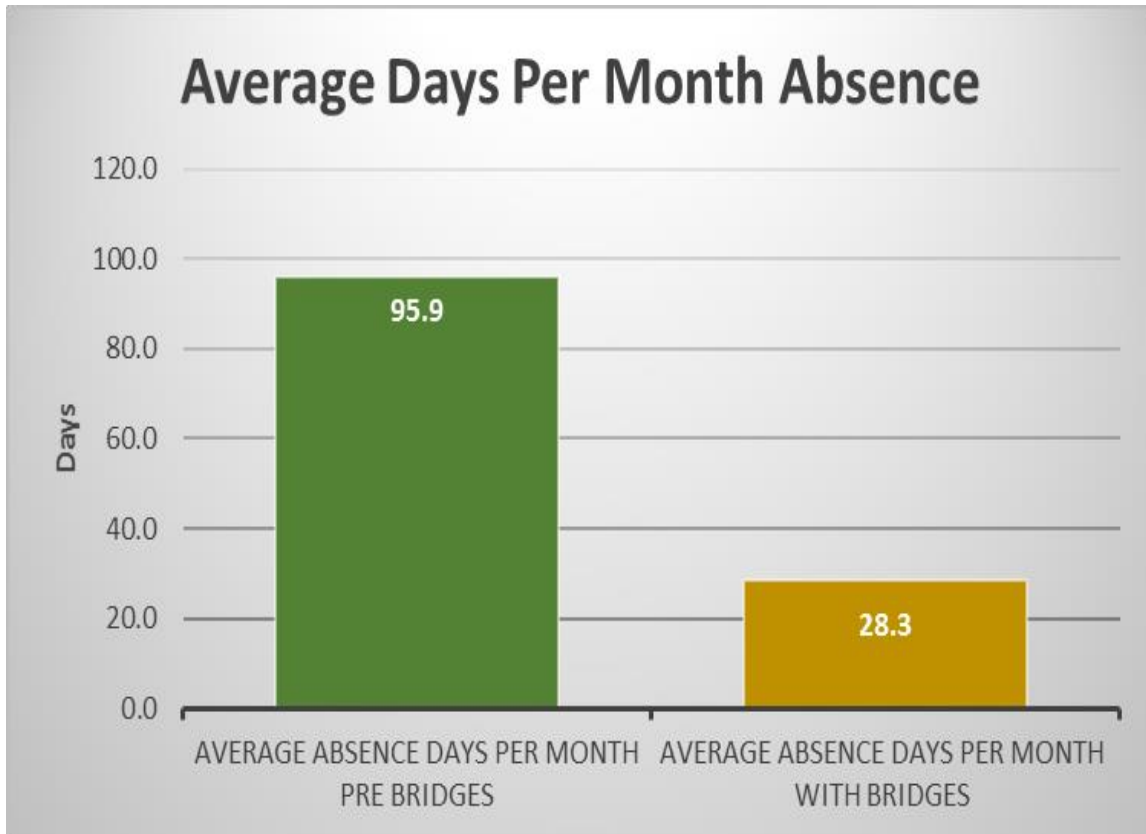
Individual reductions range from 1% to 100% decreases. Of note, 14 of these employees shown on the furthest right experienced a 100% reduction in their absence days usage (taking zero sick days since working with Bridges).

Contributing factors to the reductions include:

- ✓ Maximizing the DAP program, and meeting with employees within the first 10 absences, assists them in remaining at work and having their minor ailments resolved faster
- ✓ Following up with absence reports within 60 minutes
- ✓ Consistent, timely follow up, ensuring objective medical information is received
- ✓ Recognizing personality discrepancies and facilitating mediation
- ✓ Confidentiality; employees have reported relief that their medical information is protected
- ✓ Accountability and Culture Change; general misuse decreases when being held accountable for providing objective medical

Reduction Group (Continued):

These factors are difficult to mimic within internal organizations as they take a significant amount of dedicated time to facilitate. Bridges Consultants have a narrow scope in managing attendance and do not have additional responsibilities as a full HR Consultant typically has.



The above graph reports the number of absence days taken in the reduction group; before Bridges services were involved (April to December 2015) compared to the time Bridges worked with the pilot group (April to December 2016).

- ✓ The reduction group is experiencing a 70% reduction in sick day usage.

Reduction Group – Continued

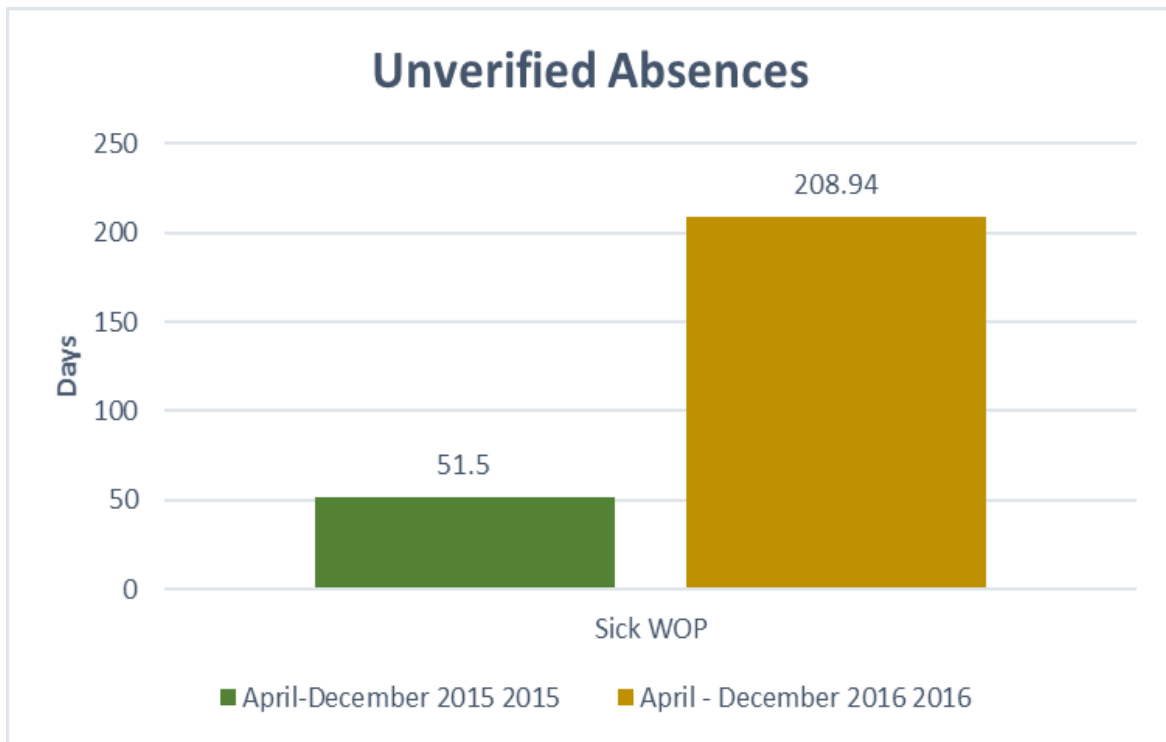
Bridges Health also measures the number of absence days that are: **“Verified”** (definition – receipt of objective medical information from a certified medical care provider)

versus

“Unverified” (definition – non-receipt of objective medical information from a certified medical care provider)

Unverified sick days lead to the City’s ability under the DAP Program to refuse sick day pay for employees with unverified absences.

This is due to diligent and timely follow up on documentation by Bridges Health Consultants and is often related to employees misusing their sick days and do not have objective medical information to support not being at work.



The above graph shows unverified sick days for the 65 employees in the pilot group in 2015 - only 51.5 unverified days (before Bridges); to:

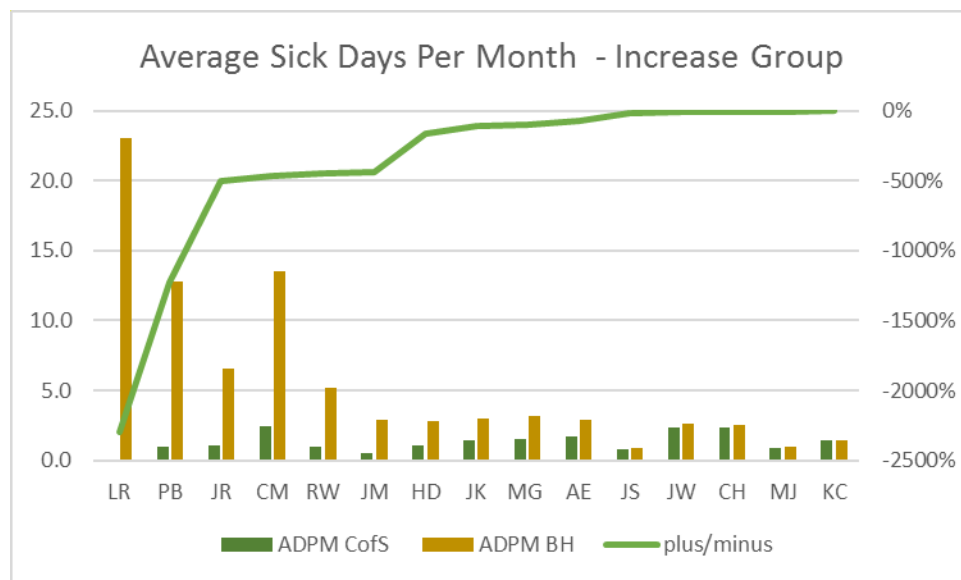
209 unverified sick days in 2016 (with Bridges).

This demonstrates 157.5 days which the City did not have objective medical to substantiate paying sick day benefits, which should be considered an additional savings.

Bridges Health Results - Increases Group:

	Group Name	Number of Employees	Percentage of Employees	Definition
1	Reduction Group	50	66%	Group of Employees in which Bridges Health Managed Absences for. This group experienced reductions in absences.
2	Increase Group	15	20%	Group of Employees in which Bridges Health Managed Absences for. This group experienced increases in absences.
1&2	Pilot Group	65	86%	Group of Employees in which Bridges Health Managed Absences for. Includes reduction group and increase group (1&2).
3	Exclusion Group	11	14%	Group of Employees in which Bridges Health Managed Absences for. However, due to internal circumstances within the City of Saskatoon, our interventions were not able to be utilized. This is further explained in the report.
	Total	76	100%	

23% of the Pilot Group experienced increases in absence days.



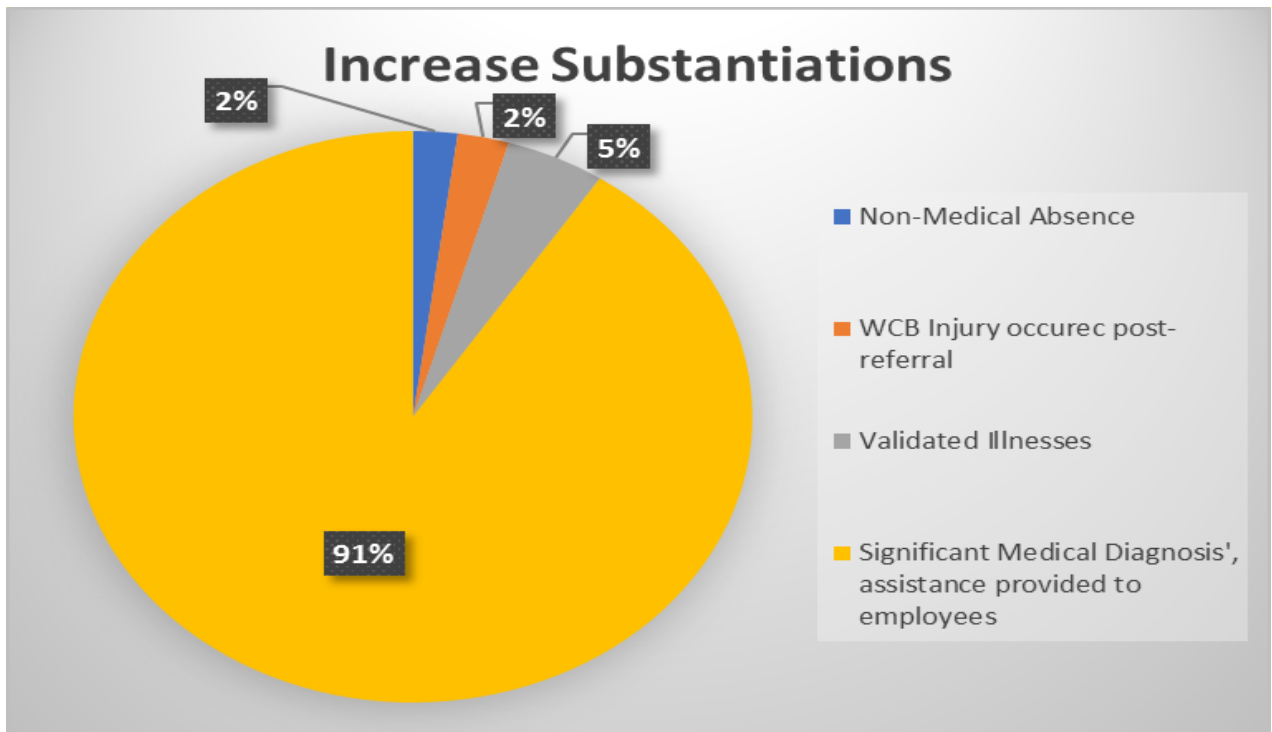
A small number of participants who experience an increase in absence days is typical and expected. As Bridges Health approach includes one of holistic health and wellness of an organization and its employees, employees who should not be at work, aren't. This ensures utmost safety and well-being of an organization and its culture.

The group; 15 employees, (23%) experienced an increase in absence days.

This is typical of all programs Bridges facilitates; these individuals represent employees with significant and objective health concerns in which Bridges Health is assisting in navigating the healthcare system, ensuring they are receiving appropriate and timely care; as well as assisting them to remain at work, or return to work as safely and expeditiously as possible.

Increases Group Continued:

For further clarity on the nature of the increased absence day statistic, below is a breakdown of the nature of the increases:



Examples of nature of illness/injuries sustained by Saskatoon Transit Employees that Bridges Health assisted with include:

- Cerebrovascular injury
- Cardiovascular intervention
- Skeletal injury
- Musculoskeletal injury
- Autoimmune disease
- Metabolic disease
- Mental Health

Interventions and assistance to employees included:

- Surgical expedition
- Attendance at physician appointments for support (at request of the employees)
- Specialist appointment expeditions
- Consistent follow up and support with care providers

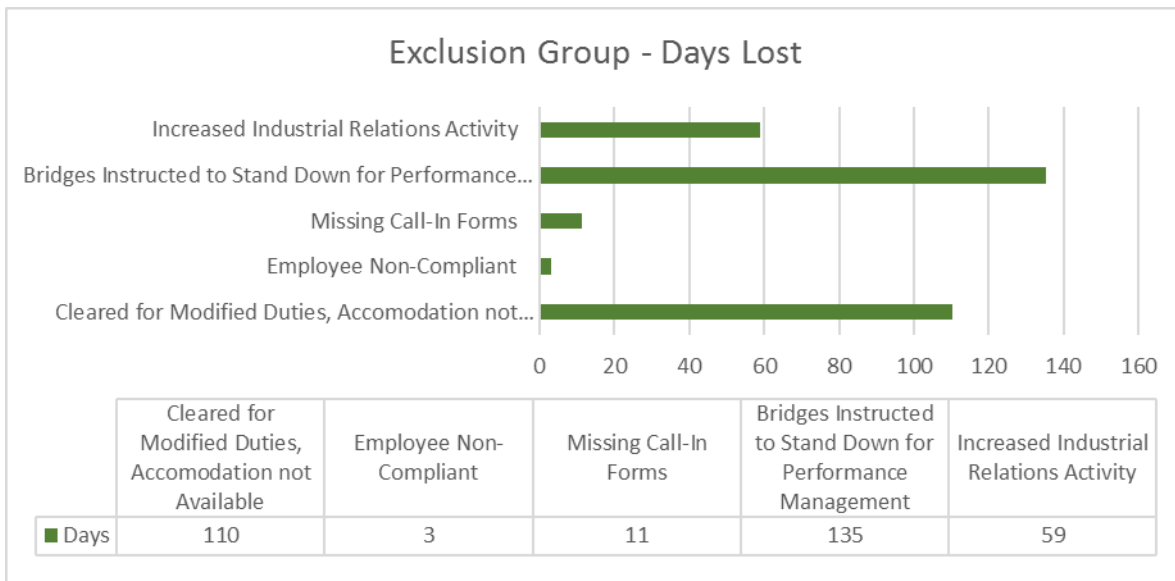
Exclusion Group:

	Group Name	Number of Employees	Percentage of Employees	Definition
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Total		76	100%	

The total number of absence days excluded from Bridges Health Results total 318 days.

The reason being is Bridges Health experienced barriers beyond our control, which are further explained below.

11 employees (14%) who were referred to Bridges Health for assistance were excluded from Bridges results due to the following:



Please see the following page for further details and elaboration of the exclusion group.

Exclusions Group Continued:

Below is an examples of detailed accounts showing specific employees and summaries of extended absences and lack of accommodation.

Employee Name	Clearance Date	Actual Return to Work Date	Variance	Notes
Withheld	12/08/2016	12/19/2016	10 Days	Modified duties could not be made available within XXX restrictions. XXX returned to full hours / full duties on December 19, 2016.
Withheld	10/24/2016	1/3/2017	45 Days – COS 25 Days - Employee	Modified duties could not be made available within XXX restrictions until December 8, 2016. Post December 8, 2016 was due to the client’s resistance with using the telephone.
Withheld	11/23/2016	12/5/2016	11 days	Modified duties could not be made available within XXXX restrictions. XXXX returned to full hours / full duties on December 5, 2016.
Withheld	10/13/2016	1/23/2017	101 Days	Advisement of clearance for modified duties sent to City of Saskatoon on October 31, 2016. Client had internal conflicts to resolve internally. On November 7, 2016, Bridges Health was asked to step back and let the City of Saskatoon administer their internal process. Client’s file was transferred to Alaina on January 6, 2017. Client took the required training and became an operator on January 23, 2017
Withheld	12/30/2016	1/25/2017	30 Days	Modified duties could not be made available within XXXX restrictions. XXXX started performing modified duties (driving) on January 25, 2017.

Additional Information - Case Studies and Success Examples:

1. Client –

- **Referral Date** – May 9, 2016
- **Barrier** – Increased industrial relations issues, lack of cooperation to the process.
- **Summary** – After five months, Bridges Health Consultant was able to establish trust and a professional relationship with the employee. After this relationship was established, the employee was comfortable coming to Bridges Health without union representation and as a result, a Bridges Health Consultant was able to work with the employee and their care provider to have them put on a three (3) week Return to Work Plan in November, 2016. As of December, 2016, the employee is now working full hours / full duties. The employee also personally thanked the Bridges Health Consultant for the assistance with returning them to the workplace.

2. Client –

- **Referral Date** – March 17, 2016
- **Barrier** – Prolonged return to full hours due to care provider.
- **Summary** – A Bridges Health Consultant was able to encourage the employee to progress to full hours with the support of their care provider. A Bridges Health Consultant created a three (3) week Return to Work Plan in December, 2016 that was sent to the employee's care provider. The employee's care provider was not responding to the Return to Work Plan that was sent. Due to the time sensitive nature, a Bridges Health Consultant was able to obtain the required information from the employee's care provider by attending the clinic and waiting for hours to see their care provider. As of December, 2016, the employee is now working full hours.

3. Client –

- **Referral Date** – August 29, 2016
- **Barrier** – Employee was impairment focused and Bridges Health was receiving contradictory medical information from their care providers, resulting in the employee's prolonged absence from work.
- **Summary** – A Bridges Health Consultant was able to return the employee to the workplace at full hours / modified duties as of January, 2017. This was achieved by a Bridges Health Consultant writing a number of letters to their care providers outlining the contradictory information, and by sourcing a physician approved aid.

4. Client -

- **Referral Date** – August 10, 2016
- **Barrier** – The Employee was calling in to request the use of sick benefits when no objective medical information could be obtained to validate this use of sick time.
- **Summary** – A Bridges Health Consultant was able to establish trust and a professional relationship with the employee. After this relationship was established, the Bridges Health Consultant was able to determine the appropriate type of treatment for this employee and assistance was provided with the referral. As a result, the employee is seeking appropriate assistance resulting in a reduction of sick benefits being used. The employee personally thanked the

Additional Information - Case Studies and Success Examples Continued:

Bridges Health Consultant for their assistance navigating them to the appropriate care provider.

5. **Client –**

- **Referral Date** – November 4, 2016
- **Barrier** – Employee is unable to operate a motor vehicle due to the employee's current medical condition.
- **Summary** - A Bridges Health Consultant is currently assisting the employee with their medical condition. A Bridges Health Consultant was able to obtain restrictions from the employee's care provider and source modified duties with the City of Saskatoon. Due to the employee being unable to operate a motor vehicle at this time, a Bridges Health Consultant encouraged the employee to catch public transit to perform the modified duties available, this is currently being done to date.

6. **Client –**

- **Referral Date** – November 3, 2016
- **Barrier** – N/A
- **Summary** – A Bridges Health Consultant is currently assisting the employee with their medical concerns. The Employee had an appointment with their care provider to receive test results and the employee did not have any friends or family that could attend the appointment with them. The employee contacted a Bridges Health Consultant and asked if they would attend the appointment with them as they were nervous about the results they were going to receive. A Bridges Health Consultant attended the appointment and was there for support and obtain the appropriate information to expedite the employee's health care needs.

7. **Client –**

- **Referral Date** – January 24, 2017
- **Barrier** – N/A
- **Summary** – An employee had a health care incident scare. This employee is an ATU Steward and contacted a Bridges Health Consultant for a self referral. Bridges Health later received an official referral to advise them of the incident and request assistance. The employee's referral was later received, the employee's intake meeting was conducted and consent was provided to assist this employee with expediting their health care needs.

Long Term Absences

1. **Client –**

- **Referral Date** – November 4, 2016
- **Summary** – This employee has a chronic medical condition. A Bridges Health Consultant was able to establish a professional relationship with this employee to assist them with navigation through the health care system. A Bridges Health Consultant was able to assist the employee by expediting their wait time for surgery and worked with the employee to return her back to the workplace at full hours.

Additional Information - Case Studies and Success Examples Continued:

2. Client –

- **Referral Date** – May 3, 2016
- **Summary** – This employee has an acute medical condition. A Bridges Health Consultant was able to assist this employee with alternative care options and the Bridges Health Consultant was able to assist the employee with being placed on the cancellation list. This employee was seen within one week of their referral to the specialized clinic.

3. Client –

- **Referral Date** – September 9, 2016
- **Summary** – This employee has an acute medical condition. A Bridges Health Consultant was able to assist this employee with alternative care options (i.e. Chiropractic treatment, Physiotherapy treatment, Acupuncture treatment and Spine Pathways Clinic). A Bridges Health Consultant was able to assist the employee with referrals and being placed on cancellation lists to expedite their treatment needs.

Thank you for the opportunity to provide this service to the City of Saskatoon. We look forward to a continued partnership with the Saskatoon Transit Department and as well to enhancing our services to additional departments.

Yours Truly,



Leon Ferguson,
Vice President



Adelle Stewart,
Director of Operations

Absence Management and Disability Assistance Program Update – Supplemental Information

Recommendation

That the report of the Acting General Manager, Corporate Performance Department dated September 11, 2017, be received as information.

Topic and Purpose

The purpose of this report is to highlight the internal city processes on managing employee absence, including: periodic (less than 10 days), on-going (greater than 10 days), and sporadic absences. In addition to highlighting the internal city processes, the report also discusses a review of existing programs: the development of an employee absence policy, a resource plan for Saskatoon Transit and a recommendation on whether the current pilot should be continued or replaced with internal resources.

Report Highlights

1. The City of Saskatoon (City) has three internal programs to manage employee absence: Attendance Support Process (ASP), Health Management System (HMS), and Disability Assistance Program (DAP).
2. Third-party assessments are arranged as needed for mental health assessments, complex medical issues, and substance abuse professional assessments.
3. Administration is currently reviewing HMS/DAP/ASP to ensure processes are effective and understood by all parties to ensure consistency.
4. A policy for employee absence management will be developed and implemented across the organization for 2018.

Strategic Goals

This report supports the long-term 10-year strategy of making health and safety a top priority in all that we do under the Strategic Goal of Continuous Improvement.

Background

At Standing Policy Committee on Environment, Utilities & Corporate Services held on August 15, 2017, it was resolved:

“That consideration of continuing with the pilot program with Bridges Health be deferred for one month and administration report on how the City may internally provide this support to its employees.”

The City’s Safety Vision is to have “A safe and healthy workplace, where employees can complete their work in an injury-free manner, benefits everyone. We will make safety the first consideration in everything we do, with the goal of zero accidents at work and at home.” As a Corporation, we strive to ensure that we are doing all that we can to

support employees struggling with injury or illness. At the same time we are ensuring that workplace absenteeism is monitored and managed.

The City has reported short-term absenteeism data since 2001. The Annual Absenteeism Report was expanded in 2009 to include a division of short-term absenteeism into two separate categories: Periodic (less than 10 days) and On-going Medical Condition (10 days or more). The report was also updated to include statistics for occupational injuries and illnesses (WCB – Workers' Compensation Board). The City entered into a one-year pilot program with Bridges Health in accordance with the program policies and procedures documented in the Disability Assistance Program (DAP) manual and the Collective Agreement between the City and The Amalgamated Transit Union, Local No 615 (ATU) and between the City of Saskatoon and SCMMA.

This pilot program involves Saskatoon Transit employees who are members of the ESA, SCMMA and ATU. The employee group consists of employees with illnesses/absences of 10 days or greater within a 12-month period, which is the current criteria of the City's DAP. Illnesses/absences of 10 days or greater include:

- An employee is off 10 days in a row.
- An employee goes over 10 days in casual absences.
- An employee provides notice they will be off for more than 10 days.

The original duration of the pilot involved a 12-month period that commenced March 31, 2016. The agreement for the pilot program was that the number of referrals does not exceed 52 over the timeline of the project.

Report

Process to Manage Employee Absence

The City is committed to managing employee attendance through a positive, supportive environment that promotes the best possible attendance, in order to provide quality municipal services. Recognizing there are a variety of reasons why employees may not be able to attend work, the City has three programs to manage employee absence.

The Attendance Support Process (ASP) outlines process and expectations for management of employee absence. The Health Management System (HMS) launched in 2010/11 with a purpose of improving in the management of occupational and non-occupational illnesses and injuries. The Disability Assistance Program (DAP) was first implemented in 1999 under the umbrella of the Health Assistance Framework. As part of this program, all employees off work for 10 days or longer are referred to an Occupational Health Consultant for development of accommodations, to ensure that proper medical information is obtained for benefits coverage, and to address on-going absences for the same illness or injury.

The ASP is designed to assist employees struggling to attend work on a regular basis and to provide support for managers and supervisors in managing excessive

absenteeism. The program is designed to improve attendance for non-medical circumstances and ensure that the employee has the necessary support to assist with any reason that may be preventing regular attendance at work.

Employees with an occupational and non-occupational injury and/or illness are supported through the HMS program for injury/illness less than 10 days in length and DAP for injury/illness greater than 10 days in length. An employee is referred to DAP if it is expected that they will be off work for greater than 10 days for the same condition and/or they require on-going support for a longer term injury/illness.

Supported by the Manager of Occupational Health and Safety (OHS), two full-time Occupational Health Consultants (OHC) provide support for employees, managers and supervisors in all divisions across the organization. The OHCs work with referred employees to ensure they have the appropriate medical information to support their absence and also work with the employee, health care providers and supervisor on a return to work program and appropriate modified duties; minimizing the time away from work while ensuring the return to modified or full duties is safe, meets the employees abilities and restrictions and results in the greatest level participation in the workplace and employee productivity.

Third Party Assessments

Employees may require time off work for a variety of medical conditions, many of which involve a physician, and/or one or more additional health care providers. Third-party assessments are arranged as needed for mental health assessments, complex medical issues, and substance abuse professional assessments.

Review of Existing Programs

The Administration is currently reviewing ASP/HMS/DAP in all divisions to ensure processes are effective and understood by all parties to ensure consistency and alignment with the language in the collective bargaining agreements. The review will also evaluate the capacity of the two OHCs in relation to the need for on-going support across the organization. Caseload has fluctuated over the duration of the program. The number of cases referred to the OHCs have decreased over the past five years since the implementation of the HMS; however, the complexity of many cases has increased requiring more involved case management and dedicated time on each file.

Employee Absence Policy

In addition to the review of the three programs to manage employee absence, a policy for employee absence management will be developed and implemented across the organization for 2018. The policy will help to ensure on-going consistency and provide clarity on roles and responsibilities as they pertain to managing employee absence.

While the internal processes have been in place for many years, there is an on-going need to ensure that the programs continue to provide a healthy, supportive environment for employees with illness/injury and require support while off work and when returning to modified or full duties. There are circumstances where additional support may be required to assist with case management. The Employee Absence Policy and

supporting procedures will outline the process for third party case management in more detail.

Resource Plan for Transit

Considering the case load at Transit, the proposed Bridges contract would need to be augmented by civic staff. The scope of work that is proposed to be handled by Bridges would require the equivalent of approximately 0.5 staff years, at a cost of approximately \$50,000. Considering all factors, the Administration believes that the best course of action would be to extend the Bridges contract for one additional year. That will give the pilot project the full chance to be tested. At the conclusion of the pilot project, the Administration will report on the results of the pilot and go-forward options focused on the most effective delivery model. Depending on the results, this may involve an internally-delivered model, an externally-delivered model or a hybrid model.

Options to the Recommendation

One option to the recommendation is to conclude the pilot project and put in place a dedicated internal resource to assist Saskatoon Transit with its disability and/or absence management programs. The Administration did not recommend this option because unanticipated issues during the first year of the pilot adversely affected results. Now that both the City and Bridges process have been improved, the pilot is positioned to provide its best results.

An option exists to pilot the Bridges approach in an alternate business unit. Transit was a relatively difficult business unit under which to evaluate the pilot due in part to the Amalgamated Transit Union challenging a number of project steps. Piloting in an alternate business unit could result in stronger results. The Administration did not recommend this option because Bridges and Transit have developed a good working relationship, and staff currently working with Bridges would be required to transition out of that program.

Communication Plan

An internal communication plan has been developed to ensure employees, supervisors and managers have access to information on ASP, HMS, and DAP through a variety of methods. Information and applicable forms are posted on the Health, Safety and Wellness SharePoint site and employee information packages are provided to employees requiring medical information to ensure that employees and their health care providers have the information describing the City's requirements for occupational and non-occupational medical absences.

Information on DAP, HMS and ASP is included in employee orientation and supervisors and managers receive training through Supervisor 101 and the Attendance Support Process training programs.

Policy Implications

An Administration policy on Employee Absence Management will be developed, ensuring roles and responsibilities within the policy are clearly communicated and that

employees, supervisors and managers are aware of tools and supports available to assist in managing employee absence.

Financial Implications

The DAP program is managed internally with two FTEs who provide case management for absences greater than 10 days in length for the whole organization with the use of third-party providers and/or consultants as required. In order to provide comparable case management to Bridges Health at Saskatoon Transit, 50% of a dedicated FTE would be required at an approximate cost of \$50,000.

Privacy Implications

The privacy of information pertaining to employees, medical conditions, treatment, and other personal information is of utmost importance. Processes are in place to ensure that there is restricted access to such information and that alternate arrangements are made in the event the situation requiring enhanced confidentiality and/or potential conflict of interest arises.

Other Considerations/Implications

There are no public and/or stakeholder involvement, environmental, or CPTED implications or considerations.

Due Date for Follow-up and/or Project Completion

Annual Health, Safety and Absenteeism Reports will be presented to committee in the second quarter of each year. Reports will include trend information as well as on-going analysis of the effectiveness of the City's health, safety, wellness and absence management programs.

Public Notice

Public Notice pursuant to Section 3 of Policy No. C01-021, Public Notice Policy, is not required.

Report Approval

Written &

Reviewed by: Kim Matheson, Director of Employee Experience and Performance

Approved by: Jeff Jorgenson, Acting General Manager, Corporate Performance Dept.

Construction & Design 2015/2016 Annual Report

Recommendation

That the report of the General Manager, Transportation & Utilities Department dated September 11, 2017, be received as information.

Topic and Purpose

The purpose of this report is to present Construction & Design's Annual Report that outlines the performance and activities of the division in 2015/2016.

Report Highlights

1. Our Customers: Construction & Design delivers projects to various internal divisions.
2. Our People: Construction & Design participates in diversity programs and focuses on safety and quality culture.
3. Our Finances: Construction & Design projects are funded by Capital Budgets.
4. Our Work: Construction & Design provides many services to both land development and rehabilitation programs.
5. Our Environment: Construction & Design is committed to the minimizing environmental impacts of construction activities.
6. Our Challenges: Construction & Design develops innovative solutions to overcome challenges.

Strategic Goals

This report supports the long-term strategy of maintaining infrastructure under the Strategic Goal of Asset and Financial Sustainability. The Construction & Design division's 2015/2016 Annual Report demonstrates a team committed to enhancing processes to improve communications, contract management, and infrastructure quality all in support of the Strategic Goal of Continuous Improvement.

Background

Construction & Design is a service provider to the City of Saskatoon that delivers municipal infrastructure projects; provides regulatory oversight; maintains infrastructure records; and provides expertise, advice and guidance on municipal infrastructure. Administration is proud to present the first annual report demonstrating a variety of successful municipal projects.

Report

The Construction & Design 2015/2016 Annual Report (Attachment 1) highlights information relating to our: Customers, People, Finances, Work, Environment, and Challenges.

Our Customers

The main internal clients of Construction & Design are Saskatoon Land, Transportation, Saskatoon Water, and Major Projects & Preservation divisions, as well as Urban Design section within Planning and Development division.

Our People

As of December 31, 2015, Construction & Design had 79 Full-Time Equivalent (FTE) employees and 36 seasonal/temporary employees across eight functional groups. As of December 31, 2016, Construction & Design had 74 Full time equivalent (FTE) employees and 37 seasonal/temporary employees across all functional groups.

Staff participated in diversity programs with Employee Experience and Performance and other organizations to increase awareness among under-represented groups. This division continues to improve the safety culture and quality performance for both employees and contractors.

Our Finances

Construction & Design activities are typically funded by capital budgets, with base operation expenditures.

Our Work

Construction & Design is a steward of both private and public infrastructure which includes design reviews, service agreements, subdivisions, discretionary use, and utility applications, connection inspections, and regulatory oversight for all land development and preservation projects.

Our Environment

Construction & Design undertakes activities to ensure regulatory compliance and mitigate environmental impacts throughout the construction planning, execution and close-out phases. Construction & Design collaborates and complies with numerous environmental regulatory bodies during the planning and execution of the capital projects program.

Our Challenges

Construction & Design thrives on challenges and discovers innovative solutions every day through minimizing the impacts of construction on public citizens, effective utilization of resources with ongoing economic changes, delivering services safely in a sustainable and cost-effective method considering regulations and technology.

Communication Plan

Producing a detailed annual report will ensure that internal and external stakeholders, along with the public, are provided with updates on the City's development and rehabilitation programs. Digital versions of C&D Annual Reports will be made available on the webpage at www.saskatoon.ca. Hard copies of the report will be distributed to key stakeholders.

Other Considerations/Implications

There are no options, public and/or stakeholder involvement, policy, financial, environmental, privacy, or CPTED considerations or implications.

Due Date for Follow-up and/or Project Completion

This report will be provided annually.

Public Notice

Public Notice pursuant to Section 3 of Policy No. C01-021, Public Notice Policy, is not required.

Attachment

1. Construction & Design 2015/2016 Annual Report

Report Approval

Written by: Celene Anger, Director of Construction & Design
Approved by: Angela Gardiner, Acting General Manager, Transportation & Utilities Department

EUCS CA - Construction and Design Annual Report 2015/2016

Construction & Design

2015/2016 Annual Report



City of
Saskatoon

Transportation & Utilities Department

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MESSAGE FROM THE DIRECTOR

The City of Saskatoon (City) Construction & Design Division management and staff are committed to delivering high-quality, reliable, infrastructure and project services. These services are provided in the most economical and expedient way to improve the quality of life for all citizens of Saskatoon. This report describes our contributions to achieve the City's Strategic Plan. I am very pleased to present the *Construction & Design 2015/2016 Annual Report* on behalf of our division.

Our team's biggest challenge is consistently renewing the infrastructure in our beautiful City. Whether it is personal commutes, business activities, or festivities and events, our intention is to achieve project completion with minimal disruption to services. The project team anticipates upcoming activities and develops strategies such as night work, trenchless technology, or phasing, to ensure our citizens' daily life is minimally interrupted while projects are completed. The Construction & Design Division has an exceptional team of professionals who manage a high volume of projects city-wide, with the objective to sustain the City's infrastructure in a reliable, well-groomed state.

Our emphasis on contractor management has ensured the eligibility of highly qualified contractors to bid on projects. The result is an improved experience for citizens through minimizing costs, fewer schedule disruptions, safety awareness, and quality of workmanship.

Our environment is very important to the Construction & Design Division. We collaborate with both internal and external resources on projects involving sediment control, migratory birds or wildlife. This ensures environmental factors are considered and sustainable solutions are implemented.

Our team continues to provide top-quality project services using best practices through continuous improvement and project development initiatives.

Best regards,



Celene Anger, PEng
Director, Construction & Design Division
Transportation & Utilities Department

1.0 EXECUTIVE SUMMARY

The City of Saskatoon (City), Construction & Design (C&D) Division successfully accomplished a variety of municipal projects utilizing the following core services: project engineering, land development, drafting, inspections, surveying, and connections. *Working together*, the team efficiently executes municipal projects through collaboration with various internal and external clients. The C&D Division diligently works towards achieving the strategic goals through living Our Mission, Our Guiding Principles, and Our Corporate Values; we take pride in Our Leadership Commitments.

The C&D Division has 79 Full-Time Equivalent (FTE) employees and 36 seasonal/temporary employees across eight functional groups in 2015/2016. C&D is responsible for delivering new capital and rehabilitation projects. The project teams are responsible for drafting, tendering, scheduling, budgeting, decision making, and coordinating with a number of clients. Through project construction phases, C&D has developed tools to mitigate and regulate risk; therefore, ensuring adherence to specifications and compliance with local, provincial, and federal regulators.

Our main internal clients include the Land Branch, Transportation, Saskatoon Water, Major Projects, and Urban Design Divisions. C&D is a steward of infrastructure for both, private and public sectors. Our services include design reviews, service agreements, applications, connections, and regulatory oversight for private developments.

Over the past two years, land development in Aspen Ridge and Elk Point residential neighbourhoods have steadily developed from underground water and sewer infrastructure, to roadway construction. In both development areas the naturalized storm pond and wetlands were key features to be implemented. The Marquis Industrial Area contained large scale projects including underground infrastructure and roadways which provided additional commercial capacity. Typical water and sewer preservation programs executed each season include water and sewer main lining or replacement, lead pipe replacement, water main replacement, and manhole inspections. Over the past few years the City of Saskatoon Roadway Preservation Plan has expanded in both funding and scope, while a decrease in land development initiatives was observed. Typical roadway preservation programs executed each season included roadway treatments, micro-surfacing, resurfacing and ultra-thin overlays which are preceded by patching and crack fill programs. In 2016, sound walls were constructed in the east and west areas of the City; other programs include channelization and intersection improvement projects.

Many of the signature capital projects undertaken over the past two years are represented in this 2015/2016 Annual Report, which provide insight to the various challenges that arise with each project type. In addition to project execution, the C&D Division has implemented many improvements in the areas of health and safety management systems, contractor management, and environmental management.

2.0 OVERVIEW

The C&D Division provides technical and project services to deliver municipal infrastructure projects. The primary objective is to maintain infrastructure in the safest, most cost-effective manner for our citizens.

Utilizing internal resources the C&D Division develops, maintains, and enforces City standard specifications and detailed drawings for roadway, sidewalk, lane, and water/sewer infrastructure. The C&D Division produces and maintains comprehensive records and mapping of all infrastructure components. A city-wide network of benchmarks provide horizontal and vertical referencing for public and private construction purposes and are installed and maintained by the C&D Division. Additional responsibilities include curb crossing inspections, commissioning new (public and private) potable water and sewer infrastructure, and acting as a steward of City infrastructure for private developments.

C&D provides municipal project services for new land development, and asset preservation, both in water and sewer, and roadways.

Land Development Project	New local, collector and arterial roads; new water, storm and sewer mains; and street construction (sidewalks, catch basins, and back lanes)
Asset Preservation	Roadway and sidewalk preservation treatments, rehabilitation of water and sewer mains, streetscaping and short-service connections
Technical Services	Registered plans, shallow utilities, encroachment agreements, private connection inspections, and public inquiries
Land Development Section	Services for new land development or redevelopment projects, servicing agreements, subdivision applications and discretionary use applications development and maintenance of all levies, capital budget, prepaid rates, and the stewardship of several budget reserves

2.1 Our Mission

The C&D Division is a service provider to the City through:

- Delivering municipal infrastructure projects;
- Providing regulatory oversight;
- Maintaining infrastructure records; and
- Offering expertise, advice and guidance on municipal infrastructure.

2.2 Our Guiding Principles

The C&D Division has a foundation of guiding principles based on the following:

- C&D is a technical service provider to the citizens of Saskatoon that serves both internal and external clients alike;
- C&D adapts to fluctuating market conditions by embracing cross training, continuous improvement activities, and focuses on employee recruitment and retention;
- C&D team collaboration and communication are paramount to the success of our projects; and
- C&D is a strategic and innovative team of professionals who excel at accountability and time management.

2.3 Our Team

Project Engineering – Technical Services

Project engineering provides detailed construction design and project management services for new construction and rehabilitation of roadways, water and sewer systems, streetscaping and bridge structures. Delivery of projects on behalf of many internal City of Saskatoon divisions, the project team manages various aspects such as tendering, contract management, environmental, quality and safety management, communications and citizen engagement. Project engineers lead technical teams comprised of inspections, drafting and survey to ensure technical, financial and schedule requirements and deliverables are achieved.

Land Development

Land development delivers a coordinated service for new land development or redevelopment projects, servicing agreements, subdivision applications and discretionary use applications for the department. Through managing agreements between the City and private developers, land development ensures direct services are constructed to acceptable standards, levies are covered and construction development proceeds in an orderly fashion. Approximately 80 land development projects are monitored annually and include contract approvals, expenditures, project scope, and servicing concerns. Land development negotiates and manages utility services and contract agreements for all phases of development for both private and City lands. Development and maintenance of all levies, capital budgets, prepaid rates and stewardship of several reserves are also managed through land development.

Drafting – Technical Services

Drafting prepares construction drawings to assist in the estimation of quantities to ensure compliance of drafting specifications for new development and expansion projects.

Drafting provides design and drafting services for all classifications of roadways and water, and sewer projects, from new neighborhoods to existing roadways and water and sewer rehabilitation.

Drafting consults and provides technical assistance to engineers, field staff, surveyors, and internal divisions such as: Roadways & Operations, Water & Waste Stream, and private citizen inquiries. As the stewards of drawing control, drafting provides proper retrieval and maintenance of internal drawings, as well as private development drawings from concept to as-built stages.

Inspection – Construction Services

The inspection team consists of engineering technologists who are responsible for providing quality assurance. Inspections services are provided throughout all project phases, on various types of infrastructure construction, new land development, streetscaping, roadway, and water and sewer rehabilitation projects. The inspectors perform regular inspections and audits on contractors to ensure adherence to contractual obligations, standards and specifications, and provincial safety regulations throughout the project to the final acceptance. Inspectors are involved in the commissioning of new infrastructure and ensure all deficiencies and warranty work meet requirements prior to final acceptance.

Survey – Construction Services

Surveyors provide services for a variety of divisions within the City of Saskatoon. They are leaders in survey technologies and ensure that infrastructure is constructed to the proper location and elevation specifications.

The survey teams' key areas of responsibility include:

Preliminary Surveys – perform preliminary topographic site surveys where construction will take place to support future design work.

Construction Surveys – transfer the design requirements using survey markers for field placement to assist contractors and city crews in project construction to design phases.

As-built Surveys – providing proper location and elevation records on the completed construction projects to drafting. These are stored in GIS for future mapping reference.

Connections – Construction Services

The connections service desk provides inspection and commissioning services to licensed water and sewer contractors; to ensure private connections comply with City and regulatory standards. The connection team addresses general inquiries regarding water

and sewer from the citizens of Saskatoon and they administer the Lead Pipe Replacement Program for both home owner requests and emergency situations. All commercial building permit applications and utility requests are reviewed and approved by the connection team. All private and commercial connections that are commissioned require a drinking water advisory which is distributed by this team. The connection team maintains the required documentation to comply with Watershed Authority Regulations.

2.4 Our Corporate Values

Trust: We build trust with citizens and colleagues by providing accurate technical information, analysis and responses in a timely manner.

Integrity: We lead by example, making the best decisions and striving to work beyond the scope of the position.

Respect: We build on each other's strengths, respectfully acknowledging individual beliefs.

Honesty: We are honest with each other and encourage open, truthful and sincere conversations; we admit to errors and learn from them.

Courage: We take smart risks, think through challenges, suggest innovative approaches and embrace change to enhance our level of service.

2.5 Our Leadership Commitments

Our employees support our leadership commitments in our day-to-day tasks through the following:

Integrity: Employees

- All communications are consistent, transparent and clear;
- Follow through with commitments; and
- Take responsibility - be accountable.

Courage: Health & Safety

- Training – work observations, procedures, safe work practises, and monthly safety meetings;
- Working towards full implementation of the Health & Safety Management System; and
- Establishing a pre-qualification system for contractors and continue contractor engagement.

Honesty/Trust: Service to Citizens

- Inform our citizens of all projects that may impact their lives using various communication methods (e.g. online maps, service announcements, twitter, paper notices and media); and
- Plan our efforts with high importance and consideration on the impact to citizen's safety and well-being.

Respect: Team Work

- Horizontal collaboration with other divisions such as: Saskatoon Land, Saskatoon Transit, Parks, Environmental and Corporate Initiatives, Transportation, Major Projects & Preservation, Water & Waste Stream, Roadways & Operations, and Saskatoon Water.

2.6 Strategic Goals

Quality of Life: C&D contributes to the quality of life by providing safe and reliable infrastructure through construction of new, or renewal of water and wastewater pipes, roadways, and sidewalks.

Continuous Improvement: C&D places a strong emphasis on quality customer service. Many new initiatives have been implemented to improve communications, contractor management, and safety policies.

Asset and Financial Sustainability: C&D maximizes the amount work for each dollar spent through the coordination of roadways, water and sewer work, new technologies and phasing.

Environmental Leadership: C&D collaborates with various environmental groups to ensure that migratory birds, wildlife and environments (i.e. wetlands or swales) are fully considered during project planning and implementation.

Sustainable Growth: C&D works closely with our clients to ensure that as projects are planned and implemented and growth and future plans are considered to maximize efficiency and minimize costs.

Moving Around: C&D constructs new roadways and sidewalks, as well as maintaining existing infrastructure, while minimizing traffic disruption.

Economic Diversity and Prosperity: C&D supports both private and City land developments through infrastructure construction and commercial/residential lot servicing.

3.0 OUR CUSTOMERS

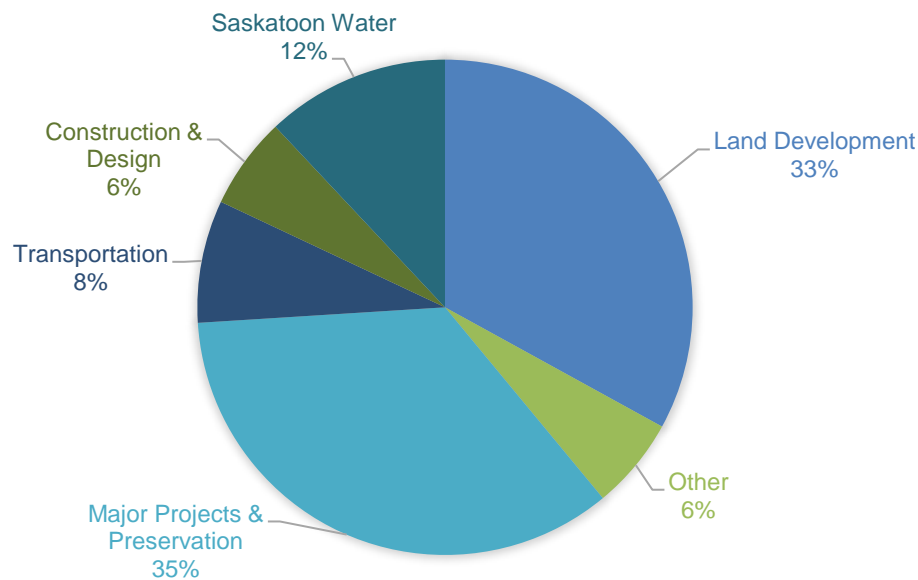
3.1 Number of Customers

The C&D Division delivers projects for various divisions within the city of Saskatoon. In doing so, C&D improves the lives of the citizens of Saskatoon by providing better roadways, sidewalks, and water and sewer infrastructure. The C&D Division also delivers fully serviced lots for Saskatoon Land to assist in affordable housing in Saskatoon.

During 2015 and 2016 C&D provided technical services for private developments; delivering approximately 95 internal projects to service Major Projects & Preservation, Urban Design, Transportation, Land Development, Water & Waste Stream, and Roadways & Operations with a value ranging from \$100K to \$15M.

The below chart demonstrates the salary distribution by customer in each division.

2016 CUSTOMERS BY SALARY DISTRIBUTION



Project Type	2015	2016
Water & Sewer Preservation	\$10.65M	\$11.5M
Roadways Preservation	34.30M	\$40.5M
Land Development	46.50M	\$24.1M
TOTAL	\$91.45M	\$76.1M

4.0 OUR PEOPLE

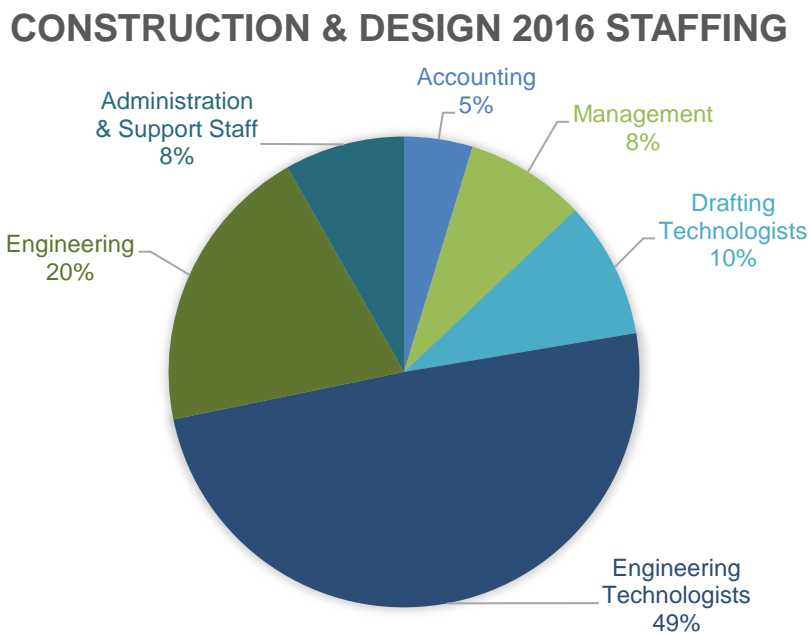
4.1 Number of Employees

During 2015/2016 C&D employed 79 Full-Time Equivalent (FTE) and approximately 36 seasonal/temporary workers across eight functional groups.

4.2 Representative Workforce

The C&D Division participated in diversity programs with Employee Experience and Performance and other organizations to increase awareness among under-represented groups. In 2015, the division provided land and surveying support for the future development of Elk Point through the Heavy Equipment Operator Course. In the past, they participated in the Gabriel Dumont Institute Work Experience Program for Aboriginal persons and Saskatchewan Indian Institute of Technologies.

The chart below details the C&D 2016 staffing allocations for each group.



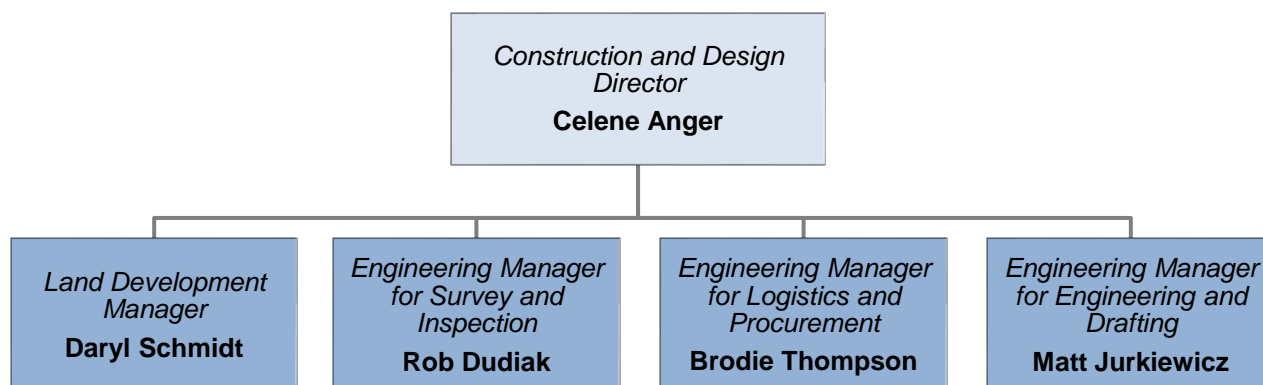
The chart is relative to goals set in 2014 by the Saskatchewan Human Rights Commission (SHRC) and adopted as corporate targets by the City of Saskatoon. As of December 31, 2015, the C&D Division had a higher proportion of self-declared visible minority employees; a lower proportion of employees self-declared as female, aboriginal, or with a disability.

The table below provides the percentage of employees who self-declared as an equity member group.

Equity Group	Construction & Design		City of Saskatoon		SHRC Goal	
	2015	2016	2015	2016	2015	2016
Aboriginal Ancestry	1.9%	3.8%	7.2%	8.5%	14.0%	
Visible Minority	16.5%	13.2%	10.3%	10.4%	11.0%	
Person with Disability	0.0%	0.9%	3.9%	3.8%	12.4%	
Female	19.4%	18.9%	38.0%	38.5%	46.0%	

4.3 Organizational Chart

The organizational chart below shows a high level overview of the C&D Division in 2016.



4.4 Employee Safety

The C&D Division continued to improve the safety culture and performance for our employees and contractors. Many successes in 2015 include:

- Zero lost-time injuries;
- Significantly reduced motor vehicle collisions;
- Implemented initial phase of contractor prequalification process; and
- Defensive Driver Training for all field staff.

In 2016, the C&D Division continued to implement the Health and Safety Management System. Some health and safety related successes include:

- Zero lost-time injuries;
- Implementation of a hearing conservation program;
- Internal health and safety audits; and
- Hazard identification control policy implementation.

Working safely is a key objective within the C&D Division. The team focuses on personal safety as well as a particular focus on contractor safety management. The C&D team ensures that contractors working on City projects understand and comply with the Saskatchewan Employment Act and, if applicable, fulfil prime contractor legislation requirements.

5.0 OUR FINANCES

5.1 Operation Finances

C&D activities are typically funded by capital budgets. The base operation expenditures for 2015 and 2016 are shown in the table below.

Expenditures	Technical Services		Development Services		Survey Instruments	
	2015	2016	2015	2016	2015	2016
Salaries	\$244,237	\$194,085	\$148,782	\$172,065	\$67,087	\$70,937
Payroll Costs	38,839	31,456	22,963	26,342	10,224	11,027
Travel	-	-	395	-	-	-
Car Allowance	1,845	416	12,162	17,573	6,356	6,065
Special Services	34,257	23,396	19,500	19,800	4,700	4,800
Staff Training	-	4,580	-	-	1,400	-
Maintenance Building	-	2,130	-	-	-	2,394
Equipment Maintenance	-	-	-	-	-	-
Radio Maintenance	-	-	-	-	-	-
V&E Rentals	520	-	510	3,014	-	-
External Rentals	-	-	-	-	62,652	68,504
Computer Expenses	-	-	1,546	-	-	-
Material and Supplies	5,224	2,836	85	33	-	-
Fuel Lube Oil	-	-	39	458	-	-
Cost Recovery	(2,436)	(2,826)	-	-	(55,000)	(58,211)
Program Totals	\$322,486	\$256,073	\$205,982	\$239,285	\$97,419	\$105,516

6.0 OUR WORK

The C&D Division delivers a variety of projects including: new land development (water, sewer and roads), water and sewer main preservation, and road preservation. The C&D Division also delivers on projects such as streetscaping, retaining walls, subdivision fencing, sound walls, and berm seeding.

Many improvements have been implemented over the last two years including: communications to the citizens, minimizing traffic disruptions, safety awareness, contractor management and quality standards. C&D has applied the use of trenchless technology, detailed phasing of work, and night work to minimize traffic disruptions and improve the quality of life for citizens. The contractor prequalification process has steadily improved, and as a result there has been a notable improvement in safety and quality of service. Delivery of construction notices had increased from 15,000 in 2014, to over 30,000 in 2016. This growth is due to an increased level of required communications, a higher volume of projects, and increased number of locations.

To provide insight on the type of projects the C&D Division has accomplished over the last two years, signature projects are highlighted in this 2015/2016 Annual Report. In addition to internal projects, the land development team provided regulatory oversight and support to private developments to ensure property inventory was maintained to meet public demand.

The following table illustrates the work service completed by land development.

	Number of Residential Lots Completed		Commercial/MF/Institute Completed (ac)		Industrial Sales (ac)	
	2015	2016	2015	2016	2015	2016
City Servicing	308	237	5.7	21.8	16.6	14.2
Private Servicing	534	22	81.6	13.0	-	-

6.1 2015 Water Main Rehabilitation

Budget	\$1,509,000
Contractor	Fer-Pal Construction
Client	Major Projects

The 2015 Water Main Rehabilitation Project involved rehabilitating six city blocks, and approximately 1,050 metres (m) of active water mains (two blocks of Cairns Avenue and four blocks on Avenue D North). This project offered the option of performing either open trench water main replacement or cured-in-place pipe (CIPP) lining rehabilitation methods. Full restoration of all excavated surfaces was included.

Challenges and Successes

The tendering process included a request for qualification which was ultimately awarded to Fer-Pal Construction.

Minimizing the impact on residents and traffic flow was a key challenge. C&D instituted a maximum number of days each location should take to complete, with a penalty fee if the days were exceeded. The penalty structure encouraged meeting schedule commitments, however, there is a mechanism for delays as a result of unforeseen circumstances.



Contractor feeding liner into water main.



New liner installed in water main.

Fer-Pal Construction utilized timber shoring, which is very uncommon sight within Saskatoon. All engineered drawings for timber shoring were reviewed to ensure all safety concerns were eliminated. The cost effectiveness of the timber shoring enabled Fer-Pal to work on multiple locations at once, resulting in minimizing the site occupancy duration.

6.2 2016 8th Street and Lorne Avenue Sanitary Chamber Installation

Budget	\$1,100,000
Contractor	Hamm Construction
Client	Saskatoon Water

The 2016 8th Street and Lorne Avenue Project involved the removal and replacement of a problematic sanitary manhole that was hydraulically inefficient, constantly surcharged and caused

sewer gas and odour issues to nearby residents. The manhole was replaced with a large diameter (approximately 3 m) cylindrical precast concrete chamber. In addition to the new sanitary chamber installation, work on this project included replacement and regrading of 13 m of 750 mm sanitary main. Removal and replacement of a second sanitary manhole, sanitary bypass for the projects duration, temporary winter restoration of the intersection with cold-mix asphalt, and final spring restoration of the intersection.



Installing sanitary chamber.

Challenges and Successes

To avoid major traffic disruption, a key constraint was that this work could not be performed during the University Bridge Rehabilitation Project. Site investigation (smoke testing, dye testing and CCTV inspection of the sanitary main) and design was completed while the University Bridge Rehabilitation Project occurred. The tender for the 8th Street and Lorne Avenue work was issued once the University Bridge Rehabilitation Project was complete.



Installing sanitary main and leads.

The problematic manhole received flows from two mains on Lorne Avenue, one main from 8th Street West and one main from 8th Street East. One of the challenges was bypassing sewer flows around the work area.

The contractor provided afterhour's supervision for the bypass lines to ensure that there was no disruption to sewer services.



Roadway restored, awaiting paving.

Backfilling and surface restoration was also a challenge due to the time of year in which the work was completed. Work began on November 5, 2015, and was completed on December 18, 2015. Due to low temperatures all backfill material was imported to avoid backfilling with frozen material. By the time the intersection was ready for restoration, hot mix asphalt was not available.

A temporary restoration solution of cold mix asphalt was put in place. The contractor returned in the spring to remove the cold mix asphalt and complete the final concrete and asphalt restoration.

6.3 2015 Central Avenue and Attridge Drive Turn Lane

Budget	\$1,269,000
Contractor	ASL Paving Ltd.
Client	Transportation

In preparation for the opening of the North Commuter Bridge, a new turning lane at Central Avenue southbound to Attridge Drive westbound was required. The project included the construction of the

turning lane and an additional lane to connect the Circle Drive and Attridge Drive interchange. Street lighting relocation was required to accommodate the new lane.

Challenges and Successes

Prior to tender, a safety concern was identified with constructing a new lane adjacent to live traffic. For the protection of workers and equipment, a contract requirement was to install temporary jersey barriers along Attridge Drive westbound.

Incorporating jersey barriers was an effective success and allowed work to progress smoothly while keeping westbound traffic flowing in two lanes, ultimately minimizing traffic disruption throughout the project which lasted three months.



Base compaction on the added Attridge Drive lane.



Paving bottom lift of asphalt.

6.4 CN Industrial Forcemain

Budget	\$1,700,000
Contractor	Kelsey Pipelines
Client	Land Development

The CN Industrial Forcemain Project involved the installation of approximately 1,000 m of 350 mm diameter HDPE pipe. The pipe was installed using horizontal directional drilling methods. The scope

of the project also included an air release chamber, drain structures, and drop structure installation.

Challenges and Successes

The horizontal directional drilling portion of the contract was completed within approximately two weeks.



Drilling and pushing pilot rod for pipe installation.



Preparing to pull pipe after reaming.

One challenging aspect of the project was the installation of the drop structure, since it was over 10 m deep with tight property constraints. In addition, inaccurate records and the challenge of working directly adjacent to an old cast iron waterman caused considerable extension to the project timeline.

6.5 2015 East Side Resurfacing and Ultra-Thin Overlay (UTO)

Budget	\$2,754,000
Contractor	Central Asphalt & Paving
Client	Major Projects

The 2015 East Side Resurfacing and Ultra-Thin Overlay (UTO) Project included asphalt pavement resurfacing at 12 locations and asphalt pavement UTO at one location.

Additional work included sidewalk concrete repairs at all locations. In total, 64,000 square meters (m²) of resurfacing and 9,100 m² of UTO was completed.

Challenges and Successes

The final product was a smooth riding surface that extended the life of the City road and repaired sidewalks to increase pedestrian safety.



Before resurfacing 23rd Street West.



After resurfacing 23rd Street West.

6.6 Elk Point Primary Water Main

Budget	\$1,677,000
Contractor	Hamm Construction
Client	Saskatoon Land

The Elk Point Primary Water Main Project scope involved construction of a 600 mm water main from the Dundonald neighbourhood to Neault Road, which would service the future Elk Point neighbourhood.

The construction work consisted of the following:

- 2,000 meters of 600 mm primary water main;
- Two valve chambers;
- Three pump drain structures;
- Two manual air release structures; and
- Two interconnections.

Challenges and Successes

The primary water main extended out to Neault Road, where there was no existing infrastructure. This posed a challenge in that the only available sewer was a storm sewer to flush water into during the commissioning of the water main. Environmental regulations require that all potable water be dechlorinated prior to flushing into a storm sewer. Therefore, sodium bisulphite was added to the water for dechlorinating prior to safe discharge into the storm sewer.



Primary water main installation with restrained joints.

During commissioning, it was discovered that the existing primary water main valve (constructed in 2012) was not holding pressure, causing the newly constructed sections to fail pressure testing. An investigation determined that the gate on the existing valve was not seated properly and additional repairs were required before the primary water main could be fully commissioned.



Valve chamber construction.

6.7 Sewer Cured-in-Place (CIPP) Lining

Budget	\$3,265,000
Contractor	Insituform Technologies Inc.
Client	Major Projects

This project consisted of installing approximately 13,605 m of Cured-in-Place (CIPP) lining of various sizes, at various locations, including the reinstatement of all active sewer connections.

Challenges and Successes

Communicating and educating residents on how to prevent any splashes from indoor plumbing appurtenances during the lining process was critical to project success. Trenchless technologies along with vigilant scheduling enabled the team to ensure minimal impact on residents and traffic.

The project was completed on schedule and the contractor successfully lined 14,298 m of sanitary and storm sewer main pipe.



Lining sanitary sewer main.

6.8 Broadway Avenue Water Upgrades

Budget	\$6,860,000
Contractor	Hamm Construction
Client	Major Projects and Preservation

The Broadway Avenue Water Upgrades Project consisted of open trench replacement of the remaining original cast iron water mains located

on Broadway Avenue; from the top of the Broadway Bridge South to the intersection of Broadway Avenue and 8th Street East. This included the 600 block of 12th Street East, 500 block of 11th Street East, 600 block of 10th Street East, and 400, 500, 600, and 700 blocks of Main Street. The cast iron water mains on Broadway Avenue were located in the intersections only; cast iron on the blocks themselves had been replaced with asbestos cement (AC) pipes in the late 1950s. The replacement of approximately 100 lead and clay tile water and sewer service connections to residential and commercial properties was additionally completed. After all underground work was completed, full curb-to-curb resurfacing of the entire road surface within project limits was carried out.

Challenges and Successes

During the planning phase, the “historical” infrastructure presented a challenge on this project. The project team knew that tracks from the old trolley system were present on Broadway Avenue between 12th Street East and the Broadway Bridge, and accounted for the tracks in their removal plan. Throughout the project, additional trolley tracks were discovered on Broadway Avenue from 12th Street East to 8th Street East.



Installing water main between Broadway Bridge and 12th Street East.

The removal was difficult since each trolley track was encased in concrete; therefore, the tracks had to be removed in sections. This process included removing concrete from the steel rails, removal of the railway ties, and the disposing of concrete rubble, scrap steel, and old railway ties.

Historical data showed breaks were occurring on the cast iron portions of the water main. Only one recorded water main break occurred on an AC portion since the AC installment;

therefore, the initial project scope was to remove the cast iron sections at intersections only. To validate the data, samples were taken at four locations throughout the project area and sent to a material testing laboratory for a series of destructive tests in order to determine the remaining life expectancy for the AC main. Results of the testing confirmed the remaining life expectancy for the AC pipe was sufficient to avoid replacement as part of the 2016 project.

Communication and coordination were key challenges on this project. Broadway Avenue is a commuter route for many citizens, a commercial area with a high amount of pedestrian traffic, and has two schools between 12th Street East and 8th Street East. In addition to the businesses, schools, vehicular and pedestrian traffic, Broadway is host to several annual events and festivals. Early communication started in the fall of 2015 with Broadway Business Development District, businesses, residents, the Ward Councillor and event organizers to allow the project team to initiate work phasing to preserve the project schedule, minimize impacts to both vehicular and pedestrian traffic and to assist accommodating the special events and festivals on Broadway Avenue.



Final resurface of Broadway Avenue.

6.9 2016 Micro-Surfacing

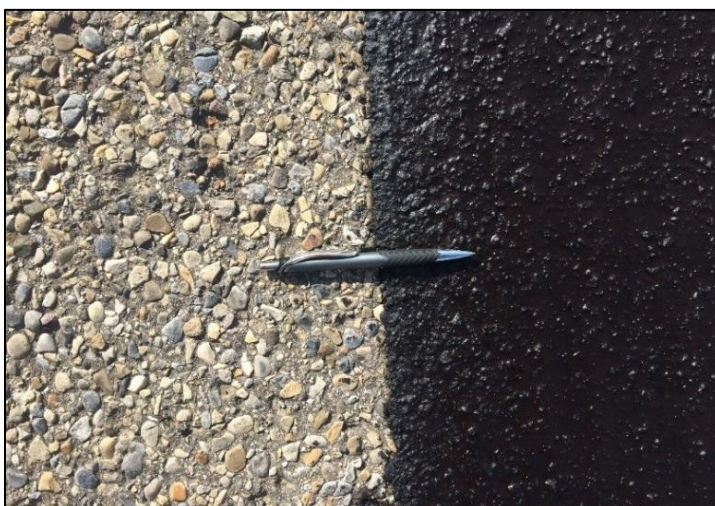
Budget	\$1,338,500 \$1,382,100
Contractor	West-Can Seal Coating Inc. Miller Capilano
Client	Major Projects

This project applied micro-surfacing to 90 street locations, totalling 332,800 m². The treatment was applied curb-to-curb to provide a weather proof, skid resistant wearing surface, thereby preserving the lifespan of the road. Micro-surfacing

patching was applied to one location totalling 700 m². Micro-surfacing banding was applied to four locations totalling 2,650 linear metres.

Challenges and Successes

The process for the Micro-surfacing application moves quickly; therefore, several locations were completed daily. The key factor to project success was the coordination of a detailed location schedule which ensured all communications and detours were established prior to work commencing. In order to achieve optimal treatment results, the micro-surfacing program is planned for the warmest months of July and August.



Before and after micro-surfacing application.

Communication was a key aspect, as continuous updates of work locations were provided to ensure uninterrupted services to residents. Construction notices were delivered to residents at least three days in advance of work commencing at each location.

A common challenge at each location on the micro-surfacing contract was road patching of utility cuts. Advance inspections prior to work starting at each location enabled the contractor to accomplish additional road patching and remain on schedule.



Application of micro-surfacing.

A technology challenge was ensuring the application rates were tightly controlled and micro-surfacing was applied evenly from curb-to-curb.

An additional challenge during the construction phase was scheduling and sometimes having to work adjacent to concrete repairs. Sequencing concrete repairs ahead of micro-surfacing was the preferred method to minimize the risk of deficiencies.

6.10 2016 Sidewalk Maintenance – MG-Krete Overlay

Budget	\$87,100
Contractor	City Asphalt
Client	Major Projects

MG-Krete Overlay was performed on approximately 1,275 m² of sidewalk as a means to preserve and extend the life span prior to a full replacement.

Challenges and Successes

Overlaying sidewalks is an economical alternative to concrete replacement for scaled sidewalks. MG-Krete overlay is a quick process without performing concrete removals and installing forms with heavy equipment. Cure time is approximately one hour, thereafter the sidewalk is returned to service which minimizes the impact to affected residents and traffic flow. MG-Krete can also be applied vertically to repair curbs prior to overlaying the sidewalk panel.

Some areas required cutting back grass overgrowth from the adjacent properties prior to the sidewalk being overlaid. Sprinklers could not be operated during the process to guarantee optimal results.



Overgrowth cutback and re-establishment of curb.



Finished MG-Krete overlay.

6.11 2016 Road Reconstruction

Budget	\$1,578,000
Contractor	Prairie Paving Inc.
Client	Major Projects

2016 Road Reconstruction included road structure restoration, asphalt pavement overlay, and sidewalk concrete replacements at five locations. In total, 9,600 m² of road structure restoration, 19,000 m² of asphalt overlay, 520 linear meters of sidewalk concrete replacements, and 880 linear meters of concrete curb replacements were completed on schedule.



Paving over new base structure.



Finished asphalt surface.

Challenges and Successes

Prior to tender, a key element for project success was accommodating access to businesses/residences adjacent to the work site. The staging of multiple construction phases per location was implemented as part of the tender to maintain access. Construction was successful and minimizing access/traffic impacts was achieved throughout the project. The project lasted approximately five months.

6.12 2016 Sound Attenuation Walls

Budget	\$3,585,000
Contractor	Wilco Contractors – East Carmont Construction – West
Client	Transportation

This project included the supply and installation of approximately 7 km of sound attenuation walls of varying height at nine locations on the east and west sides of the City.

Challenges and Successes

The overall 2016 sound attenuation wall budget was roughly \$15M for approximately nine sound wall locations. Stone tree product was used on the east side project and Verticrete and Allan Block was used on the west side project.



Stone tree fence installed at north end of Lakeview location (before final grading/seeding).

6.13 2016 Avant Park Pathway and Retaining Wall Rehabilitation

Budget	\$108,000
Contractor	Saskcon Repair Services
Client	Major Projects

The John Avant Park Project involved the removal and replacement of the weakened retaining wall and deteriorated pathway. The wall was constructed using the Allan Block Reinforced Retaining Wall (AB Collection) System. Approximately 110 m of the retaining wall and pathway (2.5 m wide) was constructed. The project was completed with full restoration and included a pond and park area.

Challenges and Successes

A key concern was the construction zone, located in a park and adjacent to a storm pond. Residents using the park required protection from the construction area and the impact to the park had to be minimized. For safety purposes, the work site was fully fenced off during construction. Construction notices were delivered to the surrounding area and signs posted at each end of the park. To prevent damage to the park, the contractor implemented tracked equipment and smaller loads for construction.



Old retaining wall and pathway.



New retaining wall.

An additional challenge was drainage into the park. Several homes had their weeping tiles draining into the park and the drainage pipes were located below ground into the storm pond. This resulted in water seepage into the wall and pathway construction area. Parks supplied a contractor to install a drainage trench along the back of lots. The trench collected all drainage and connected the weeping tiles to drainage pipes in the wall, and out to the pond.

Overall the project was successful. The residents in the area received a new quality retaining wall with a better functioning park pathway.

6.14 2016 Water Rehabilitation and Road Reconstruction

Budget	\$2,168,900
Contractor	Acadia Paving Ltd.
Client	Major Projects

The Water Rehabilitation and Road Reconstruction Project included road structure restoration, asphalt pavement overlay, sidewalk concrete replacements, and water main replacements with all related

appurtenances. In total, 1,120 m² of road structure restoration, 15,150 m² of asphalt overlay, 380 linear meters of sidewalk concrete replacements, 520 linear meters of concrete curb replacements and 90 linear meters of water main replacement was completed in 2016.

Challenges and Successes

A challenge encountered during this contract was scheduling and phasing, there were five locations in the Westmount area, and three schools adjacent to these locations. Planning and phasing for each location was conducted to alleviate restrictions to public traffic.



Base restoration progress over new water main.



Completed base restoration over new water main.

The locations adjacent to the schools were also required to be completed prior to September 1, 2016.

7.0 OUR ENVIRONMENT

The C&D Division is responsible for the construction, design, and delivery of new capital and rehabilitation projects. C&D engages to complete construction planning and design. The team undertakes activities to ensure regulatory compliance and mitigate environmental impacts throughout the construction planning, execution and close-out phases.

C&D is committed to minimizing impacts associated with construction activities. Continual improvement of internal processes mitigate potential environmental implications.

A typical project life cycle consists of the following broad steps:

1. High-level options evaluation
2. Concept evaluation
3. Conceptual engineering
4. Detailed design
5. Construction planning and design
6. Project execution
7. Project close-out

Steps 1 to 4 of the process are typically completed prior to C&D involvement as the steps encompass the overall concept and design of a project. Many of the factors that have direct environmental impacts are considered and mitigated through construction planning and design.

7.1 Regulatory Compliance

C&D collaborates and is required to comply with numerous environmental regulatory bodies during the planning and execution of the capital projects program.

7.2 Municipal

- Bylaws and Policies
 - Environmental Policy (C02-036) - The organization encourages and expects environmentally responsible behaviour from all employees and contractors working at civic facilities and grounds.
 - C&D ensures all construction activities comply with Regulatory (Acts, Bylaws, Guidelines, Standards, Permits and Bylaws) and Non-Regulatory Requirements (Codes of Practice, Agreements with Public Authorities, Council or Administrative Policies).
 - Wetland Policy (C09-041) - Guides land use and development decisions related to wetland and riparian areas in a manner that is sensitive to the ecological integrity of wetlands and the objectives of achieving compact, sustainable and economically viable growth patterns.

- C&D ensures all mitigation measures are implemented as designed and that construction activities do not adversely impact sensitive areas.
- Environment and Corporate Initiatives
 - Soil Handling Strategy - A corporate wide initiative that focuses on the management of contaminated and clean soils from City construction projects.
 - C&D collaborates with the Corporate Soils Engineer to manage contaminated soils upon discovery to ensure compliance with environmental regulations and internal policies.
 - Corrosion Control Program - The program follows Health Canada guidance for sampling and monitoring lead in drinking water. A service connection replacement program has been developed to remove lead from the distribution system.
 - C&D to administer lead service line replacement program.
- Meewasin Valley Authority and Swale Watchers
 - Northeast Swale Development Guidelines - Provides direction for the minimization of disturbance to the Swale, while meeting transportation, utility, storm-water management and other community needs.
 - C&D collaborates with stakeholders to ensure the guidelines are incorporated into detailed designs and are implemented during construction activities to minimize impacts to this ecological resource.

7.3 Provincial

- Ministry of Environment
 - The Environmental Management and Protection Act - Governs the standards related to design, construction, alteration and operation of waterworks and sewerage works.
 - C&D is responsible to ensure projects are managed by qualified persons and constructed according to standards and approvals granted by the Province.

7.4 Federal

- Environment Canada
 - The Migratory Birds Convention Act - Provides for the protection of migratory birds through the *Migratory Birds Regulations* and the *Migratory Birds Sanctuary Regulations*.
 - C&D is responsible to ensure that migratory birds and their habitat (wetlands), as defined under the Act, are not disturbed within the protected time periods by construction activities.
- Department of Fisheries and Oceans
 - The Fisheries Act - Requires projects avoid causing harm to fish when work is conducted in, or near, waterbodies that support fish that are part of, or that support, a commercial, recreational or Aboriginal fishery.

- C&D is responsible to ensure work being executed near the South Saskatchewan River is compliant with the Act to ensure no potential impacts to the river, unless otherwise authorized by Department of Fisheries and Oceans.

7.5 Continuous Improvement

The C&D Division pursues continual improvement opportunities to minimize environmental impacts associated with project delivery through:

1. Exploring opportunities for alternate materials and methodologies by:
 - Alternative bids (labour and/or materials);
 - Variance requests; and
 - Value engineering proposals.
2. Collaborating with industry to trial and evaluate new products and processes
 - Stand-alone trial projects;
 - Test sections within existing projects; and
 - Lunch and Learn professional development opportunities.
3. Collaborating with Environmental and Corporate Initiatives on development and implementation of Corporate Programs for:
 - Evaluation of environmental implications on projects;
 - Environmental Management Policies for construction;
 - Contractor Environmental Management System;
 - Criteria and metrics for prequalification activities; and
 - Assisting with, or managing delivery of corporate environmental projects.

In 2015 and 2016, C&D executed the following five major projects that contained continuous improvement activities related to improving environmental performance.

- 20th Street Streetscaping Phase III;
- 2015 Elk Point Wetland;
- Aspen Ridge Neighbourhood Development and Northeast Swale; and
- Alternative Materials for Parkridge A2.

7.6 2015 20th Street Streetscaping Phase III

Budget	\$900,000
Contractor	ASL Paving Ltd.
Client	Urban Design

The project goal was street beautification on 20th Street from Avenue G to Avenue H to include new curb work and sidewalks, sidewalk improvement at intersections for improved pedestrian safety, paving stones, street trees, underground utilities, tree amenities, and street furniture.

Challenges and Successes

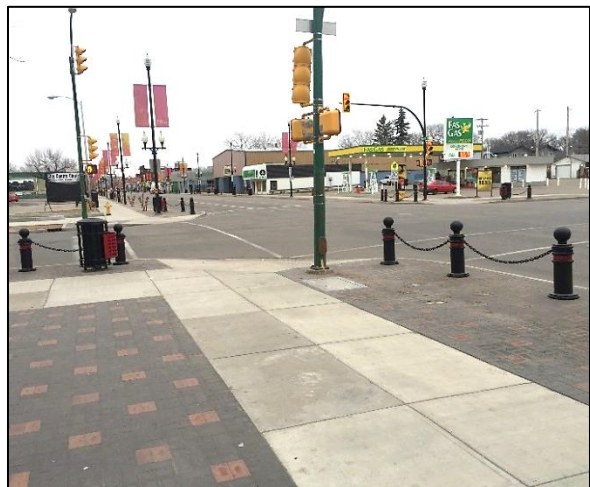
20th Street was the first location to utilize an innovative approach to storm water management. Typically, street trees are watered using fresh water irrigation systems. On 20th Street, C&D worked with other Divisions to develop a storm water detention system. The system directs runoff from the streets to the street trees, allowing a reduction in the amount of irrigation required. The storm water detention system also achieved some pre-treatment of the storm water prior to reaching the storm sewer system. This will be beneficial if the trees do not use all of the storm water from a heavy, quick rain event.



Tree gate and gutter opening for street tree.



New sidewalk forms.



Sidewalk improvement, paving stones, and street furniture.

7.7 2015 Elk Point East Wetland

Budget	\$3,150,000
Contractor	Wilco Contractors SW Inc.
Client	Construction & Design

The purpose of this project was to deconstruct an existing wetland area, contour the land to create a functioning storm retention pond, and transplant the live soils back into the pond to

reconstitute the wetland area; preserving the natural habitat.

Challenges and Successes

In November 2013, City Council adopted the Wetland Use Policy which essentially states that all natural habitats must be identified, categorized and inventoried. Future concept plans for neighbourhoods must take these natural habitats into account. The Elk Point neighbourhood was designed to purposely incorporate a wetland natural habitat.

Construction work started in January of 2015. The mild winter enabled frozen ground excavation which would normally be inaccessible due to wet and muddy conditions. The Elk Point wetlands spans an



Weir construction.

area of 16.75 acres and approximately 317,000 m³ of earth was excavated during construction.



Working under existing sanitary forcemain.

All of the live soils (known as the seedbed) were identified, collected and stockpiled. The seedbed held both emerging and submerged vegetation, and was transplanted to the constructed wetland area. Transplanting the seedbed to the new wetland was essential for preserving natural vegetation.

Elk Point wetlands were designed with a weir structure. The weir-wall was installed at a precise height to ensure the wetlands maintain the desired water level.



Wetland seeding.

Elk Point wetland construction required the installation of several concrete culverts underneath an existing sanitary force main. Numerous safety precautions were taken to ensure the sanitary force main was not disturbed.

After the wetlands were constructed, there was concern that the unplanted portions of the banks were susceptible to erosion. A specific formulated seed mix was embedded on the slopes to preserve the banks.

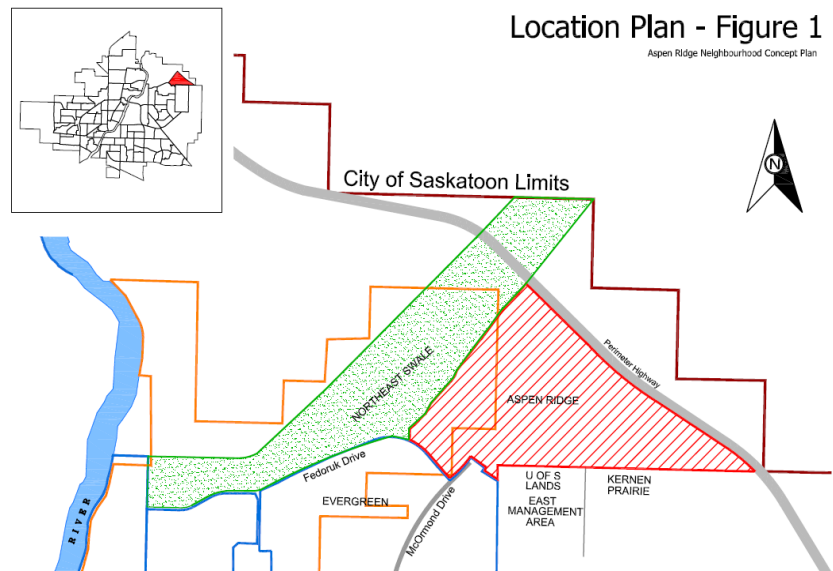
7.8 Aspen Ridge Neighbourhood Development and Northeast Swale

Budget	~\$41.1M through 2016
Contractor	Various
Client	Saskatoon Land

Located in Saskatoon’s northeast corner is the new Aspen Ridge subdivision. Once complete, Aspen Ridge will have a projected population of nearly 13,000 people, who will reside in 2,087 single dwelling units, and 3,854 multi dwelling units. The Aspen Ridge location is adjacent to the Northeast Swale; Saskatoon Land designed this subdivision to integrate the natural beauty of the swale in the neighbourhood. The Northeast Swale runs along the west side of Aspen Ridge and is managed by the Meewasin Valley Authority (MVA). The Northeast Swale Development Guidelines (2012) were established to demonstrate how the development adjacent to the swale could proceed.

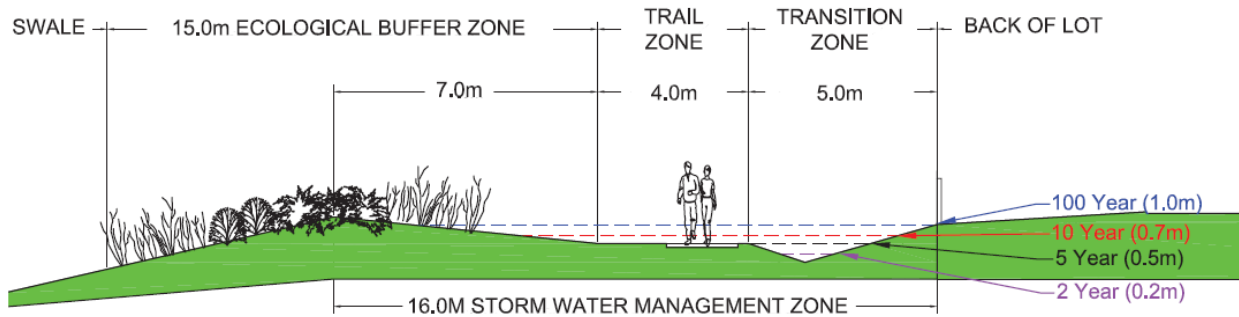
Challenges and Successes

Important components in the design of Aspen Ridge included constructing naturalized storm water management areas. These areas include the Greenway, and also the construction of the storm water forebay and linear park. The Greenway was designed to act as a buffer between the Aspen Ridge neighbourhood and the Northeast Swale, and provide a naturalized park for the community.



Overview of the Aspen Ridge Neighbourhood.

Some storm water in Aspen Ridge runs into the linear park which follows an existing drainage channel into the storm water forebay. All storm water in Aspen Ridge ends up in the forebay where sediments from the water are deposited. Clean water is eventually released into the swale through a controlled method.



Cross-section of greenway.

Throughout construction of Aspen Ridge, C&D consulted with various stakeholders to ensure that the Northeast Swale Development Guidelines were monitored and the swale was protected. During construction activities in the Northeast Swale, a third-party environmental monitor was hired to conduct daily water testing and ensure that the health of the swale was not compromised due to construction activity. C&D worked with MVA and Parks to ensure an appropriate seed mix was implemented for the forebay and linear park. This mixture would provide a healthy integration with existing plants in the swale. Also, the MVA is currently completing the detailed design for final landscaping of the



Storm sewer culvert inlets in drainage channel.



Linear park during seeding.

Greenway. C&D continues to facilitate development in the Aspen Ridge area.

7.9 Alternative Materials for Parkridge A2 Roadways Construction

Budget	\$2,586,000
Contractor	ASL Paving Ltd.
Client	Saskatoon Land

This project consists of three lane-kilometres of asphalt roadways complete with sidewalks and catch basin construction for 174 lots within the Parkridge Phase A2 Subdivision.

Challenges and Successes

The new roadway pavement structure, introduced in 2013, required a rock drainage layer. The drainage layer extends the life of the infrastructure, but it is costly and the supply of aggregate can pose challenges. The contractor brought forward a valve engineering proposition for using an alternative material.

In 2014 the contractor approached the City with a proposal to use natural fines as the alternative product for the drainage rock material. The natural fines material is a crushing by-product that is left over after crushing aggregate. The natural fines product has different design consideration values which are used in the pavement design structure process; therefore, it was decided to use this product as a trial on the Parkridge A2 roadways construction project.



Placing natural fines material on the woven geotextile.

One benefit of using natural fines, rather than rock, was improved efficiency of delivery and placement as trucks were able to travel on this material. Track equipment was required when rock was used.



Compacting and shaping the natural fines material.

After completing the pavement design using the natural fines product, the structure required a 280 mm thickness of natural fines instead of the 225 mm thickness of drainage rock. On the Parkridge A2 roadways construction project, 4,368 m³ of the natural fines product was used and resulted in a savings of \$20,000 on the project.

In order to validate the long term performance of this alternative product, this location will continue to be closely monitored. We anticipate incorporating natural fines product as a permanent option in the design and construction of building roads in the future.

8.0 OUR CHALLENGES

C&D thrives on challenges and discovers innovative solutions every day. Some of our challenges to overcome include:

- Minimizing the impacts of construction on citizens;
- Utilizing resources efficiently as the diversity of the project type varies due to economic changes; and
- Delivering high quality infrastructure in a safe, sustainable, and cost-effective way while keeping pace with changes in regulations and technologies.

9.0 SUMMARY OF 2015 AND 2016 ACHIEVEMENTS

In summary, we have provided C&D's achievements in the 2015/2016 years. Our division delivered approximately 95 internal projects that benefit the citizens of Saskatoon.

9.1 New Land Development

The table below summarizes new land development that occurred in 2015/2016.

2015	2016	New Land Development
22.2 lane-km	14.3 lane-km	Of new roadways
15,300 m	4,400 m	Of new water mains
16,400 m	3,810 m	Of new sanitary sewer mains
11,000 m	3,510 m	Of new storm sewer mains
1	-	Storm water retention pond

9.2 Preservation of Infrastructure

The table below summarizes the preservation of infrastructure specific to areas that occurred in 2015/2016.

2015	2016	Preservation of Infrastructure
220 lane-km	205 lane-km	Of roadway preservation treatments
5,400 m	8,700 m	Of sidewalk rehabilitation
4,058 m	1,920 m	Of water main rehabilitation
10,000 m	13,400 m	Of sanitary sewer rehabilitation
279	465	Existing short connections replaced
1,024	-	Manhole inspections

9.3 Technical Services

The table below summarizes technical service connections installed in 2015/2016.

2015	2016	Technical Services
615	670	New short-service connections installed

9.4 Communications

The table below summarizes communications and methods of delivery for 2015/2016.

2015	2016	Communications
18,000 +	36,945	Notices delivered to citizens
7	2	Community engagement presentations
1,500	1,300	ESRI map updates
3	5	Contractor engagement sessions

9.5 Health and Safety

The table below summarizes the health and safety that occurred in 2015/2016.

2015	2016	Health and Safety
12	12	Divisional safety meetings throughout the year
0.92%	1.57%	Absenteeism rate
467	186	Compliance observations completed
233	259	Toolbox meetings held over eight construction months
14	10	Site inspections across four different site locations

10.0 CONCLUSION

The success of the C&D Division is dependent on the dedication and skills of its employees and their efforts are greatly appreciated. Our knowledgeable team of engineers, technologists, technicians, administration and accountants play a crucial role in the delivery of the capital projects taken on each year. The guidance and support of the General Manager, City Manager and City Council is very much appreciated.

The C&D Division and staff look forward to the future and all the challenges and opportunities that accompany our ever growing, dynamic City of Saskatoon.

Capital Project #2427 – Repair Cosmo Park Riverbank Slope Failure - Budget Adjustment Request

Recommendation

That the Standing Policy Committee on Environment, Utilities and Corporate Services recommend to City Council:

That the transfer of \$303,018 from the Storm Water Management Capital Reserve to Capital Project #2427 – Repair Cosmo Park Riverbank Slope Failure, be approved.

Topic and Purpose

The purpose of this report is to obtain City Council approval to fund an over expenditure in Capital Project #2427 - Repair Cosmo Park Riverbank Slope Failure.

Report Highlights

1. During a comprehensive review, a total of 20 capital projects were found to be complete and can be closed.
2. One of these projects require City Council approval to fund an over expenditure.

Strategic Goal

The recommendations in this report support the Strategic Goal of Asset and Financial Sustainability. Allocating resources to civic assets ensures that they are well-managed and well-maintained, meeting the needs of citizens.

Background

A review of capital programs has resulted in the closure of 20 capital projects. Of these completed projects, 11 are under spent and funds will be returned to the appropriate reserves; eight were overspent by an amount that does not require City Council approval to fund; and one project requires City Council approval to fund the amount over-expended.

Report

The project variances from this review net an accumulated return of \$383,247 to the various reserves. A comprehensive review of the reserves has also been undertaken which considers the 2016 year-end balance in the reserve, the effect of the capital closures mentioned previously, the 2017 contributions to the reserves, as well as the approved 2017 capital program which draws from these reserves. This review has revealed that there is sufficient funding in the affected reserves to accommodate these capital project closures.

The majority of the projects affected are annual programs that typically receive funding every year. The work in these capital projects is not bound solely by the calendar year, as work often carries over year-to-year.

Capital Project #2427 – Repair Cosmo Park Riverbank Slope Failure was approved by City Council in 2009 at \$2,600,000 with funding from the Municipal Economic Enhancement Program. Over the years, further slumping has occurred throughout the site, particularly in the north area below the Meewasin Valley Authority Trail, resulting in the additional remediation work:

- excavation of the road;
- installation of road base and conduit under the roadway;
- installation of geotextile and an extra erosion blanket;
- additional concrete in the pedestrian ramp adjacent to the bridge;
- installation of an additional 95 metres of curb; and
- additional topsoil, mulch, and plantings.

The cost of the remediation work was \$303,018, and the Administration is recommending that funding from the Storm Water Management Capital Reserve in the amount of \$303,018 be allocated to allow closure of this project.

Financial Implications

There is sufficient funding in the Storm Water Management Capital Reserve to fund the outstanding balance in Capital Project #2427 – Repair Cosmo Park Riverbank Slope Failure. Returns to source made available through this process exceed the required funding for this project.

Other Considerations/Implications

There are no options, public and/or stakeholder involvement, communications, policy, environmental, privacy, or CPTED implications or considerations.

Due Date for Follow-up and/or Project Completion

There will be no follow-up report.

Public Notice

Public Notice pursuant to Section 3 of Policy No. C01-021, Public Notice Policy, is not required.

Report Approval

Written by: Jennifer Rau, Accounting Coordinator II, T&U Portfolio
Finance, Asset & Financial Management Department

Reviewed by: Shelley Korte, Director of Business Administration, T&U Portfolio
Finance, Asset & Financial Management Department

Approved by: Angela Gardiner, Acting General Manager, Transportation & Utilities
Department

Slope Remediation at Saskatchewan Crescent and 16th Street East – Request for Contract Extensions

Recommendation

That the Standing Policy Committee on Environment, Utilities and Corporate Services recommend to City Council:

1. That the Administration be given approval for the Engineering Services Agreement with Golder Associates to exceed 25% of the contract agreement and be extended by \$117,919.01;
2. That the Administration be given approval for Contract #16-0557T – Saskatchewan Crescent and 16th Street Slope Remediation with Celta Construction Inc. to exceed 25% of the contract agreement and be extended by \$799,346.64; and
3. That the City Solicitor be requested to amend the appropriate agreements.

Topic and Purpose

The purpose of this report is to obtain City Council approval to extend the contract with Golder Associates (Golder) for geotechnical engineering services, and with Celta Construction Inc. (Celta) for construction services for the remediation work at Saskatchewan Crescent and 16th Street East. Both are in excess of 25% of the original contract values.

Report Highlights

Unknown soil conditions of the lower slope, slope movement during construction, an early snowstorm in October 2016, and additional lower slope slumping in the spring of 2017 have resulted in schedule and financial impacts on both the engineering consulting services and construction services necessary to remediate strategic City infrastructure at Saskatchewan Crescent and 16th Street East.

Strategic Goals

This report supports the Strategic Goal of Asset & Financial Sustainability to protect City infrastructure along Saskatchewan Crescent. This report also supports the Strategic Goals of Quality of Life and Moving Around as this project provides vehicle access to Saskatchewan Crescent and 16th Street, and pedestrian and cycling access to the adjacent upper and lower Meewasin Trails.

Background

In March 2016, Golder was commissioned to monitor, design, and provide construction management for the riverbank slope failure along Saskatchewan Crescent and 16th Street East. In August 2016, Celta was awarded Contract #16-0557T – Saskatchewan Crescent and 16th Street Slope Remediation for the construction of the chosen design option, which included:

Slope Remediation at Saskatchewan Crescent and 16th Street East – Request for Contract Extensions

- earthwork on the lower slope,
- installation of an H-pile retaining wall with concrete lagging,
- sub-drainage, and
- restoration of the upper Meewasin Trail and Saskatchewan Crescent East.

Report

Various factors were involved during the remediation work that resulted in additional costs. Given the nature of geotechnical projects such as this, limited information of the ground conditions is available until the excavation takes place. Once the excavation started, it was determined that larger than anticipated quantities of unstable soil had to be removed and replaced with more stable imported soil. In early October 2016, a heavy snowfall was experienced. Also, during construction, the retaining wall started deflecting due to slope movement.

Golder incurred additional costs for:

- increased surveying,
- monitoring,
- construction delays,
- analysis and modifications to the remediation design, and
- additional on-site construction management.

Celta experienced additional costs due to larger than anticipated quantities of excavation and replacement of material along the lower slope. Other additional costs, due to work outside of the original contract scope, were incurred during construction, such as:

- catch basin removals and replacements,
- storm outfall pipe replacement,
- additional curbing and handrail section installations, and
- changes to the handrail along the retaining wall.

Runoff from the spring of 2017 and rain events resulted in erosion and further slumping along the lower bank from the newly installed outfall from 16th Street East. This area requires further remediation to protect the slumping from regressing further along the bank or upslope. This work will include excavation and replacement of existing material within the slump, re-grading, and installation of a riprap channel.

Public and/or Stakeholder Involvement

The Meewasin Board of Directors approved the remediation plan at the beginning of 2016. Regular project updates are provided to the Water Security Agency and Department of Fisheries and Oceans to maintain their approval for construction near the river.

Communication Plan

Adjacent residents were invited to learn about the project and ask questions at an open house in the summer of 2016. Project update notices were delivered during each stage of the project to keep residents informed of the status and any traffic restrictions.

Slope Remediation at Saskatchewan Crescent and 16th Street East – Request for Contract Extensions

Signage along the lower Meewasin Trail notified trail users of the closure. Project details, including a time-lapse video of construction, were updated at saskatoon.ca/riverbankslope.

Policy Implications

According to Policy A02-027, Corporate Purchasing Procedure, City Council approval is required for contract increases above 25% of the original contract value.

Financial Implications

Details of the additional costs (excluding GST) to the Engineering Services Agreement with Golder are as follows:

Anticipated Final Contract Cost	\$ 504,894.00
Less Original Contract Cost	<u>(389,060.00)</u>
Subtotal Cost over the Original Contract Cost	\$ 115,834.00
PST (6% of 30%)	<u>2,085.01</u>
Change Order Amount being requested	<u>\$ 117,919.01</u>

Details of the additional project costs (excluding GST) for Contract #16-0557T – Saskatchewan Crescent and 16th Street Slope Remediation with Celta are as follows:

Anticipated Final Contract Cost	\$ 2,151,884.60
Estimated Outfall Erosion Remediation	300,000.00
Less Original Contract Cost	<u>(1,697,784.00)</u>
Subtotal Cost over the Original Contract Cost	\$ 754,100.60
PST (6%)	<u>45,246.04</u>
Change Order Amount being requested	<u>\$ 799,346.64</u>

There is sufficient funding in Capital Project #1493 – East Riverbank Stabilization to cover the additional funding requirements.

Environmental Implications

Given the proximity to the riverbank, steps need to be taken to ensure the proper regulatory bodies are included in communications for this work. The Meewasin Valley Authority and Water Security Agency have both been involved in this project.

Other Considerations/Implications

There are no options, privacy, or CPTED implications or considerations.

Due Date for Follow-up and/or Project Completion

The Engineering Services Agreement with Golder, and Contract #16-0557T – Saskatchewan Crescent and 16th Street Slope Remediation with Celta, are planned to be completed by the end of October 2017.

Slope Remediation at Saskatchewan Crescent and 16th Street East – Request for Contract Extensions

Public Notice

Public Notice pursuant to Section 3 of Policy No. C01-021, Public Notice Policy, is not required.

Report Approval

Written by: Lowell Reinhart, Infrastructure Engineer, Saskatoon Water
Reviewed by: Angela Schmidt, Storm Water Utility Manager, Saskatoon Water
AJ McCannell, Engineering & Planning Manager, Saskatoon Water
Reid Corbett, Director of Saskatoon Water
Approved by: Angela Gardiner, Acting General Manager, Transportation & Utilities Department

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Waste Handling Levels of Service

Recommendation

That the Standing Policy Committee on Environment, Utilities and Corporate Services recommend to City Council:

1. That the City discontinue printing and mailing of the collection calendar for 2019 and continue to offer digital options;
2. That the City discontinue the extra post-Christmas garbage collection starting in 2018;
3. That the waste handling funding gap decision be deferred to the 2018 decision on waste utility options; and
4. That all other service level changes be considered during development and implementation of waste utility options.

Topic and Purpose

The purpose of this report is to present the current levels of service for the Waste Handling service line for the City of Saskatoon. Established levels of service allow the Administration to focus on value-added work and to set clear business objectives. This report also presents options for City Council to review should they wish to adjust a limited list of specific levels of service that will reduce budget pressures on the Waste Handling service line.

Report Highlights

1. The current waste handling levels of service are detailed in Attachment 1.
2. The current budget pressures from decreased Landfill revenue, increased customers, and subsidies to other programs have resulted in an estimated \$2.6 million deficit for the 2017 Waste Handling service line.
3. Recommended service level changes are provided for savings in the 2018 budget.
4. Other service level options for future consideration have been provided in this report however are not being recommended at this time as they are not ready for 2018 implementation.

Strategic Goals

This development of the level of service document supports the strategic goal of Continuous Improvement by looking at more efficient ways to conduct business and ensuring an integrated approach to stakeholder communications. This work further supports the strategic goal of Asset and Financial Sustainability as defining levels of service is the first step in implementing an asset management strategy. A focus on the strategic goal of Environmental Leadership is highlighted throughout this report and attachments, by providing options for greenhouse gas emission reduction and waste diversion.

Background

On May 15, 2017, the 2018 Budget Indicative Rate report was brought forward to the Governance and Priorities Committee. In that report Administration reported that leading up to the 2018 Business Plan and Budget deliberations, a series of service level reports would be provided with options to increase or decrease service levels. Due to the desire to reduce the potential property tax increase in 2018, only cost saving changes to levels of service are included in this level of service report.

In January of 2017, Administration reported that the waste management in Saskatoon, including the Waste Handling service line was not environmentally, socially, or financially sustainable. The options presented in this report focus on opportunities that will improve financial and environmental sustainability in 2018.

Report

Current Waste Handling Levels of Service

The Waste Stream Management section is responsible for the Waste Handling service line which includes Garbage Collection Operations, Landfill Operations and Landfill Gas Operations. In addition, other waste management programs include; the Waste Reduction and Resource Recovery service line, the Compost Depots Utility, and the Leaves & Grass Utility. The Waste Handling service line, specifically the Landfill Operating Budget, subsidizes the Compost Depots and Leaves & Grass utilities. The current level of service document is focused on the Waste Handling service line only. Future reports will be presented with service levels for the other service lines within waste management.

Attachment 1 provides detail on the values associated with each program, along with service level outcomes, and customer performance measures. Costs associated with each program are also presented, along with supporting information and constraints. This report focuses specifically on Landfill operations, curbside residential waste collection, and waste collection from multi-family properties and the commercial sector. In 2016, these programs resulted in a deficit of \$2.059 million.

With the design of a waste utility being conducted in 2018 these service levels will provide the base level for comparison in future utility models.

Service Level Budget Pressures

As noted in the January 31, 2017 Waste Management Master Plan - State of Waste report, declining revenue from fewer tonnes at the Landfill, higher costs for collections and processing (solid waste and organics) and increased growth in the City of Saskatoon have contributed to budget challenges in the Waste Handling service line. These challenges are anticipated to generate a deficit of \$2.6 million in 2017. This report and attached level of service document provide recommendations and options for savings to reduce the expected increase in the Waste Handling budgets for 2018.

Recommended Cost Saving Service Level Changes.

Ideas for budget savings that do not impact services, such as reducing overtime by more effective scheduling, are implemented whenever possible. The current budget shortfall in Waste Handling cannot be reduced by continuous improvement alone. To reduce the forecasted budget increase for 2018, the following changes to the Waste Handling service line are recommended.

- Discontinue printing and mailing of collection calendars and continue to offer digital options (Attachment 2):
 - Impact: An estimated corporate-wide annual savings of \$85,000. The Waste Handling budget impact is estimated at \$25,000 in savings with \$60,000 in savings coming from the Leaves and Grass Utility and Residential Recycling Utility. Costs for the planning and scheduling of the calendar would still be required for digital versions. This decision will affect the 2019 calendar as the 2018 calendar is prepared with 2017 budget funds. This option will support diversion by reducing the amount of paper generated by the Administration. Implementing in 2018 allows for appropriate time to communicate with residents.
 - Risk: An estimated 5% of residents may not have access to the online calendar, based on the July 2017 Waste & Recycling Survey.
 - Mitigations: Residents without internet access can call the customer service centre and copies of larger collection calendars can be placed at civic facilities. Additionally, community outreach will occur to identify alternative opportunities to ensure all households can access their collection schedules.

- Discontinue extra post-Christmas garbage collection:
 - Impact: The extra post-Christmas collection is conducted using staff overtime. Eliminating this service would eliminate the associated over time. This option also reduces greenhouse gas emissions by reducing fleet mileage and saves on fuel costs. This option would save \$25,000 annually.
 - Risk: Increased use of the recycling depots and Landfill for cardboard and excess holiday wrapping.
 - Mitigations: Continue collections from recycling depots on Sundays (including December 23, 2018 and December 30, 2018) to minimize the amount of recycled material left on site.

Options for Future Consideration (2018 and beyond)

The following options, detailed in Attachment 3, were evaluated for practicality and cost savings; however, many of these options require public consultation and are better reviewed as part of the Waste Utility and Waste Diversion Engagement Plan:

Waste Handling Levels of Service

Option	Opportunities
<ul style="list-style-type: none"> • Move to a year round bi-weekly single family collection schedule 	<ul style="list-style-type: none"> • Estimated annual savings of \$300,000 to \$480,000 in reduced operational expenditures.
<ul style="list-style-type: none"> • Extended hours at the Landfill and Compost Depots 	<ul style="list-style-type: none"> • This option allows for extended hours of operation at the Landfill and the Compost Depots by further staggering of staff shifts at an estimated cost of \$40,000.
<ul style="list-style-type: none"> • Additional relocation of collection points to front street from rear lane 	<ul style="list-style-type: none"> • In addition to significant safety performance improvements, savings would be realized for reduced lane repair costs, liability from damages, and future fleet requirements.
<ul style="list-style-type: none"> • Reschedule Garbage and Green Cart collections on statutory holidays and provide collection on alternate days 	<ul style="list-style-type: none"> • Savings of less than \$60,000 and a complex collection schedule.
<ul style="list-style-type: none"> • Removal of the subsidy at the Landfill for loads under 150 kg 	<ul style="list-style-type: none"> • Unknown savings as it may drive customers to other landfills.
<ul style="list-style-type: none"> • Discontinuing the subsidy for the Compost Depots and Green Cart programs 	<ul style="list-style-type: none"> • This option saves the Waste Handling service line over \$850,000, but no other funding source for these programs has been identified.
<ul style="list-style-type: none"> • Increase the number of Garbage Collection days by shifting a portion of collections to Saturdays 	<ul style="list-style-type: none"> • This option effectively increases fleet capacity without procuring new vehicles, but requires public consultation.

Options to the Recommendation

City council could direct the Administration to further explore and report back on any or all of the optional level of service changes for the 2018 Business Plan and Budget deliberations. City Council could also direct the Administration to discontinue the collection calendar for 2018, in order to maximize savings. This option would require City Council decision prior to October 1, 2017.

Communication Plan

A detailed communications plan will be developed for each option if they are approved by City Council.

Financial Implications

Retaining the current levels of service, as detailed in Attachment 1, will result in a 2017 funding shortfall of \$2.6 million, unless budgets are increased to match the approved service levels.

Other Considerations/Implications

There are no public and/or stakeholder involvement, policy, environmental privacy, or CPTED implications or considerations

Due Date for Follow-up and/or Project Completion

The customer levels of service will be reviewed annually based on citizen feedback from the Citizen Satisfaction Survey and recommended changes to the level of service will be reported to Council for approval. Administration will report to Council during budget deliberations with a budget based on the approved levels of service.

Waste Handling Levels of Service

Public Notice

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Attachments

1. Service Level for Waste Handling
2. Waste & Recycling Collection Calendar
3. Options for Future Consideration on Waste Service Level Alterations

Report Approval

Written by: Mark Shaw, Environmental Operations Manager,
Water & Waste Stream
Michelle Jelinski, Senior Project Management Engineer,
Water & Waste Stream
Dunni Harriman, Performance Improvement Coordinator,
Employee Experience & Performance

Reviewed by: Russ Munro, Director of Water & Waste Stream

Approved by: Jeff Jorgenson, Acting General Manager, Corporate Performance
Department

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Service Level for Waste Handling

Scope:

Service Level (SL) documents are prepared to allow customers of the City of Saskatoon (City) to review and understand the services *currently* provided. This document includes activities completed under the Waste Handling service line. This service is delivered solely by the Water and Waste Stream Division.

Service Overview: *what we do*

The Water & Waste Stream division, Transportation & Utilities Department provides waste collection and disposal services for residents and a portion of the commercial sector of Saskatoon.

The Waste Stream section performs Landfill operations, curbside waste collection for single-family homes (black carts), waste collection for some multi-family properties and commercial businesses (metal bins), curbside food & yard waste collections (green carts), compost depot operations, community recycling depot collections and maintenance, collection cart asset management (excludes recycling carts and metal bins), the Landfill gas collection system operation, and Waste Bylaw education and enforcement.

The Waste Handling service Line includes Waste Collection Operations, Landfill Operations, and Landfill Gas Operations. The Service Levels documented herein are exclusive to landfill operations, curbside waste collection, along with waste collection for multi-family properties and the commercial sector.

Purpose: *why we do it*

Waste Handling services are provided to manage waste in ways that protect both human and environmental health while staying affordable and convenient.



Programs within Service Line	Service Attributes or Values	Service Level Outcomes	Customer Performance Measures
<p>Public health and safety</p>	<p>Reliable, Responsible, Safety</p>	<p>Waste handling programs and services offered by the City of Saskatoon align with public health and safety.</p> <p>Our goal is to minimize the potential for pest infestation and other waste-related health concerns by providing regularly scheduled waste collection and disposal.</p> <p>Convenient and easy to use carts are provided to residents to store waste in a safe and sanitary manner until the next scheduled collection date.</p> <p>Waste collection is provided to single family households, multi-unit dwellings and residents included in the special services collections program.</p> <p>Commercial customers can choose to contract with the City.</p> <p>Collections are offered to urbanized areas of the City. Acreage owners, for example, within annexed City limits do not receive the collection services until urban development occurs.</p>	<p>A curbside collection calendar is mailed to all single-family households in the last quarter of the year. The collections schedule can also be viewed on the City of Saskatoon website.</p> <ul style="list-style-type: none"> ➤ Weekly collections occur from May to September. ➤ Bi-weekly collections occur from October to April. ➤ In the event of a missed collection due to operational error, the City will return to empty the waste cart within 2 business days. <p>Curbside garbage collection consistently has a 99.9% success rate.</p> <p>Multi-Unit collection service occurs on a weekly basis, year round.</p> <p>Commercial collections are provided under contract with the City.</p> <p>Damaged carts requiring minor repairs are completed within 3 weeks.</p> <p>Carts for new homes and replacements for unusable carts will be delivered to residents within 3 business days.</p>

Programs within Service Line	Service Attributes or Values	Service Level Outcomes	Customer Performance Measures
Environmental Protection	Environmental Stewardship	<p>As stewards of the environment, we are committed to minimizing the long-term impacts of waste on the environment.</p> <p>The Landfill has engineered systems to responsibly manage Landfill gas emissions, and to protect surface water and groundwater from potential impacts.</p> <p>Recyclable waste is diverted from the Landfill through a variety of programs including scrap metal, used oil and antifreeze collection locations.</p> <p>Landfill Gas is collected and sold to SaskPower thereby reducing greenhouse gas emissions from the landfill and generating a source of revenue for the City.</p>	<p>The Landfill operates within the requirements of Provincial Regulations and the Permit to Operate.</p> <p>Waste diversion options are made available to residents.</p> <p>As stewards of the river, there are no negative impacts from the Landfill.</p>
Fiscal Responsibility	Asset preservation, Accountability	<p>Programs and services are designed to provide efficient and financially sustainable service.</p> <p>Continuous Improvement and cost reduction initiatives reduce the operating impacts of delivering programs and services.</p> <p>Resources are managed to increase the Landfill life and maintain the existing levels of service.</p> <p>Commercial garbage collection and Landfill tipping fees provide an alternate revenue source which reduces the mill rate impact to citizens. Other revenues include those from the sale of scrap metal, white goods (appliances), used oil, and batteries.</p>	<p>The City's financial reports provide detailed information on the Waste Handling Service Line. The 'Preliminary Detailed Operating & Capital Budget Report' and the 'Annual Report' can be viewed on the City of Saskatoon website and accessed here.</p>

Programs within Service Line	Service Attributes or Values	Service Level Outcomes	Customer Performance Measures
<p>Customer Service</p>	<p>Reliable, Aesthetics, Accessibility</p>	<p>Services offered are convenient, easy to use and responsive to citizen demands.</p> <p>The Landfill is open every day of the year except for Christmas Day and New Year's Day. Summer Landfill hours of operation are 7:30am – 5:30pm, while Winter hours are from 7:30am – 5:00pm.</p> <p>Programs such as the Post-Christmas, Special Services and Special Events Garbage Collections provide citizens with convenient, easy to use and accessible service.</p> <p>Back lane illegal dumping clean-ups help maintain public quality of life and an aesthetically pleasing City.</p> <p>Special service garbage collection is provided to elderly and mobility challenged residents in households that were converted from shared 300 gallon containers to roll-out carts during the container conversion process. Approximately 340 households remain on this program and no new applicants are being accepted. Administration does continue to receive requests from residents to join this program.</p>	<p>A dedicated customer service call center is available 24/7 to assist citizens with their enquiries.</p> <p>All emails are acknowledged within 2 business days.</p> <p>Containers are delivered and retrieved before and after each special event. The containers are emptied as required.</p> <p>Illegally dumped materials in back lanes are removed in a timely manner. The Parks and Roadways & Operations Division conduct illegal dumping clean-ups in other public spaces.</p>

Resource Allocation: *what does it cost*

All costing information presented is estimated based on available data.

Cost to provide these service levels broken down by activity in the previous year are:

Program Activity	Description of Program Activities		2016 Budgeted	2016 Actual	Variance
Collections Operations	Total collection and container costs for single-family, multi-family, commercial and special services garbage collection	Program Cost	\$6,736,000	\$7,032,000	-\$296,000 <i>Unfavorable</i>
		Revenue	\$640,000	\$602,000	-\$38,000 <i>Unfavorable</i>
		Property Tax Portion	\$6,096,000	\$6,430,000	-\$334,000 <i>Unfavorable</i>
Landfill Operations	Total Landfill operating costs	Program Cost	\$6,447,000	\$6,206,000	\$241,000 <i>Favorable</i>
		Revenue	\$5,730,000	\$3,764,000	-\$1,996,000 <i>Unfavorable</i>
		Property Tax Portion	\$717,000	\$2,442,000	-\$1,725,000 <i>Unfavorable</i>
Waste Handling Service Line Total		Property Tax Portion	\$6,813,000	\$8,872,000	-\$2,059,000 <i>Unfavorable</i>

Financial Assumptions:

- The total cost of the collections program increases annually due to the growth of the city.
- The Garbage Collection Operating Budget (GL 01-772) continues to fund the Automated Garbage Container Replacement Reserve.
- The Landfill Operating Budget (GL 01-774) continues to fund the Landfill replacement reserve (LRR).

Supporting Information:

There are two related service lines that provide complementary services to Waste Handling Services. They are outlined below:

Waste Services Utility Service Line

- Curbside recycling program operated under contract through Loraas Recycle.
- Multi-Unit Residential Recycling (MURR) program operated under contract through Cosmopolitan Industries.

- The curbside food & yard waste collection (Green Cart) program.
- The compost depot program.

The Waste Reduction and Resource Recovery Service Line

- Community recycling depot operations.
- Environmental protection and waste bylaw enforcement.
- Christmas tree program.
- Household hazardous waste (HHW) program.

Constraints:

- Inclement weather can impact the ability to deliver these services. Collections and Landfill operations can be suspended during periods of extreme cold, lightning storms or high winds.
- Fleet requirements and availability. The number of trucks in the City's collections fleet has not increased in more than eight years, even though the number of collection locations has increased due to growth (by approximately 40,000 residents during that time period). Equipment downtime for repairs and maintenance negatively impacts the ability to operate as scheduled.
- Restricted size of back lanes increase hazards associated with waste collections. Significant safety concerns with back-lane collections have been highlighted in recent years. These include overhead lines, foliage/trees, and increased incidents due to contact with other vehicles and private property, when compared to front street collections. In addition, some lanes are so narrow that an operator could not be extricated in the case of emergency (i.e. the lane is too narrow at certain locations to allow the doors to open). These are in addition to the increased lane maintenance required as a result of wear-and-tear from collections vehicles. Collection truck sizes continue to increase, resulting in an inability to collect with newer automated trucks in some areas.
- Limited resources to address illegal dumping occurrences in back lanes.
- Increased Landfill competition in the region, resulting in declining revenues.

Supporting References:



- The waste handling service line is regulated by the City Waste Bylaw No. 8310.
- With regards to Landfill operations, the City holds a Permit to Operate a Waste Disposal Ground, which is regulated by the Saskatchewan Ministry of Environment; specifically the Municipal Refuse Management Regulations under the Environmental Management and Protection Act. The City also holds Ministry of Environment approval (pursuant to the Hazardous Substances and Waste Dangerous Goods Regulations) to store waste antifreeze, used oil, and used batteries at the Landfill Eco-Centre.
- The City holds a Permit to Operate the Landfill Gas Collection System and compressor/flare station. This operation is regulated by the Clean Air Regulations, under the Clean Air Act.

Recommended Optional Service Levels: *what else is possible*

The table below provides service level options and associated costs should there be a need or desire to adjust the service level.

No.	Service Level Option	Description of Change in Service Level Outcome	Overall Funding Result
1	Stop printing and mailing the collection calendars and instead direct residents to the online option	Eliminating paper collection calendars will result in savings and efficiencies from reduced reliance on paper, administration, printing and distribution costs. The calendar would be available online.	Estimated total savings of \$85,000. Of that, the Waste Handling Service Line would realize approximately \$25,000 in savings.
2	Discontinue post-Christmas garbage collection	Requires the use of overtime for collections and Landfill staff. With the curbside recycling program total waste volumes have decreased.	\$25,000 in reduced overtime and equipment costs.

A Culture of Continuous Improvement
Saskatoon is the best-managed city in Canada!



Waste & Recycling Collection Calendar

[1] Issue:

- The annual printed Waste & Recycling Collection Calendar involves a significant amount of staff time and costs approximately \$110,000 to produce and mail to 71,000 households. The City could save approximately \$98,000 and 200 hours of staff time by moving to a digital-only calendar in 2018.
- Citizens can view, download, print, and save their personalized calendar on the City's website. The Re-collect application also offers email, calendar and text message reminders.
- The July 2017 Recycling Survey results indicate that 69% of residents support discontinuing the distribution of print calendars and 29% oppose. Of note, the proportion of residents who live in single-family homes who actually receive the calendar is not known at the time this report has been prepared.
- In 2015, the Recycling Survey identified that 75% of people recalled receiving the calendar and most kept it for reference.
- Moving to a digital-only collection calendar and discontinuing a mailed piece helps achieve the City's commitments to a digital-first approach and environmental leadership by diverting waste from the landfill.
- The printed collection calendar provides education and awareness information that is important for waste diversion. The City will continue to advertise and direct people to the website for tips and information about recycling specific materials.

[2] Recommendation(s):

The Administration recommends City Council approve to discontinue the printed and mailed personalized calendar produced in 2018 for the 2019 collection year and continue to offer digital options.

[3] Background & Analysis:

When the blue recycling cart was introduced in 2013, the City moved to a personalized, more comprehensive calendar to help single-family households adjust to having multiple collection days. Prior to that, a standard 1-page calendar was mailed to these addresses for garbage collection routes. A separate calendar was provided to green cart subscribers.

The 2018 Waste & Recycling Collection Calendar will be finalized in early October 2017, for printing and mailing in late-November to approximately 71,000 single-family

households and includes personalized collection route and waste service-related information, including hazardous waste and composting options.

The Calendar involves a significant amount of staff time and will cost \$110,000 in the 2017 budget, including design (\$17,000), print (\$33,000), mailing (\$54,000) and promotion (\$6,000).

There are 12,857 (18%) addresses subscribed to Re-collect that receive email, calendar or text message reminders, plus 5,030 additional subscribers for the same address.

The July 2017 Recycling Survey results tell us:

- 69% of single-family homes support discontinuing the distribution of print calendars and 29% oppose (780 respondents).
- 96% of all respondents have access to the internet at home or on a mobile device (1004 respondents).

The 2015 Recycling Survey results indicate that more than 75% of single family homes recall receiving a printed copy of the Waste & Recycling Collection Calendar; many have it available at home for easy reference, although it wasn't asked if they solely rely on it.

If the recommendation by Administration to discontinue printing the calendar in 2018 is accepted, the final printed piece in 2017 will communicate options for citizens to find future personalized calendar online and promote the Re-collect reminder alerts. Additional community outreach will occur to identify alternative opportunities to ensure all households can access their collection schedules.

[3.1] Operating Impact

Significant staff time for operations staff (70-90 hours), Communications (150-180 hours) and Program staff (160-180 hours) is required to coordinate the content, design and 38 route combinations of the personalized printed calendar. The design services are provided by the Agency of Record, as there is no graphic design and data management staff to manage it internally. An estimated 380-450 staff hours will be reduced by more than half to approximately 200 hours if the personalized calendars are no longer produced.

[3.2] Capital Impact

There is no capital impact of discontinuing the printed calendar.

[4] Strategic Direction:

The services provided by Waste Handling align with the strategic goals of "Environmental Leadership" and "Continuous Improvement." The performance measures are as follows:

- Divert 70% of waste from the Saskatoon landfill
- Citizen satisfaction with civic services of 90% or more

[5] Implications

[5.1] Service / Business Line Implications:

This recommendation impacts the Waste Handling Service Line within the Environmental Health Business Line and the Waste Services Utility Service Line.

[5.2] Financial Implications:

There is an estimated savings of \$98,000 in 2018 in design, printing and mailing costs.

[5.3] Other Implications:

- Additional advertising and communications will be implemented through fall 2018 to notify affected households of the alternative options available.
- Increase in call volume to customer service call centres in January 2019 is anticipated.

[6] Options to the Recommendation

Option 1 – Digital Calendar in 2017 (2018 Collection Schedule)

- There would be no printed calendar delivered this November 2017. Single-family households would find their 2018 collection schedule and future versions on the City's website.
- There is potential savings of \$90,000 for the 2017 budget and \$106,440 for the 2018 budget, in consideration of the enhanced advertising costs to communicate the change.
- The routes and pick-up days remain the same for 2018, making it an easy transition from the print calendar. There are changes planned for some routes in 2019.
- The disadvantage of this option is that no notice was provided in the last printed calendar and some citizens may be unaware of the change if they miss the advertising and promotions.

Option 2 – Status Quo – Continue with Annual Printed Calendar

- All single-family households would continue to receive a printed personalized calendar at a cost of \$117,660 (includes inflation) in 2018.
- It is expected that fewer people will keep the printed calendar as Re-collect subscribers increase.
- The disadvantages of this option are:
 - By maintaining current process, the City is demonstrating a low commitment to waste diversion.
 - The same amount of staff time and agency design costs are required for a print-version, no matter how many copies are printed.
 - There is limited flexibility to accommodate route or pick-up day changes after October, which often are considered during budget deliberations in late November.

Waste & Recycling Collection Calendar

Summary of Options by Budget Year

NOTE: The 2019 calendar is produced and delivered in 2018.

ESTIMATED COST	Recommended: Digital Calendar		Option 1: Digital Calendar in 2017		Option 2: Status Quo Printed	
	2017	2018*	2017	2018*	2017	2018*
DESIGN	\$17,000	\$5,100	\$5,000	\$5,100	\$17,000	\$17,340
PRINTING	\$33,000	0	0		\$33,000	\$38,040
MAILING	\$54,000	0	0		\$54,000	\$56,160
PROMOTION	\$6,000	\$15,000	\$15,000	\$6,120	\$6,000	\$6,120
TOTAL EST.	\$110,000	\$20,100	\$20,000	\$11,200	\$110,000	\$117,660
STATUS QUO BUDGET	(\$110,000)	(\$117,660)	(\$110,000)	(\$117,660)	(\$110,000)	(\$117,660)
EST. SAVINGS	0	\$97,560	\$90,000	\$106,440	0	0

**2018 ESTIMATES ASSUME 2% COST INFLATION AND 72,000 PRINTED CALENDARS*

Options for Future Consideration on Waste Service Level Alterations

The following options were evaluated for practicality and cost savings as potential alternations to the Waste Handling Service Levels. Many of these options require public consultation and as such are recommended to be reviewed as part of the Waste Utility and Waste Diversion Engagement Plan.

1. Move to a year round bi-weekly single family collection schedule:
 - Estimated annual savings of \$300,000 to \$480,000 in reduced operational expenditures. Future capital expenditures to increase the fleet size (due to population growth) could also be avoided; however, this is dependent on the date of implementation and the subscription levels of the green cart program. The range presented is due to the uncertainty in the estimate, which is largely due to fleet variables. This option would stabilize fleet and staffing requirements, reducing the hiring and training of temporary summer staff. The savings proposed in this level of service change are not directly scalable on a monthly basis. Offering weekly collection for a shorter time period during the year would still require the complete weekly collection fleet to be carried for the full-year. Seasonal staff would still be required, all of which would significantly reduce the financial benefit.
 - This optional service change also supports City of Saskatoon goals of increasing diversion by incentivising citizens to be more considerate of their waste and to pursue programs such as the green cart. There are synergies with this option and the green cart program. If this option were selected, garbage collection trucks could be used in the green cart program. The recent Waste Characterisation Study showed that 58% of the material in the black carts is organic material that could be diverted by the use of compost depots or by subscription to the green cart program. This option would reduce residential collection volume from 14.3 cubic meters to 9.8 cubic meters per household annually. While this may be an inconvenience for some residents, it would help in meeting diversion goals.
 - Examples of other municipalities that have implemented year-round bi-weekly collection include: Toronto, Vancouver, Calgary, and the Halton Region. All of these municipalities have a city-wide program similar to the City of Saskatoon green cart program. This option would require the end of the extra post-Christmas collection for the benefits to be realized. This option reduces greenhouse gas emissions by reducing the total distance traveled by the collections fleet and reducing the amount of waste in the Landfill.
 - This option is not recommended at this time as there is no city-wide organics collection program in place, and as a result, bi-weekly garbage collections could result in odour complaints. Overfilled carts and illegal dumping challenges are other risks with less volume available for home owners. An unprecedented increase in green cart program subscriptions may occur, which would further

strain that operating budget, but may help in meeting diversion targets. Administration recommends that this option be considered as part of the larger Waste Utility Public Engagement Plan.

2. Extended hours at the Landfill and Compost Depots:
 - This option allows for extended hours of operation at the Landfill and the Compost Depots by further staggering of staff shifts. This option is considered favourable for the Landfill but would require contract changes and scheduling changes making a 2018 implementation challenging and an unknown cost at this time. The cost to implement extended hours at the Compost Depots based on 9:00 a.m. to 6:00 p.m. seven days a week at both sites is \$40,000 annually. It is recommended that these options also be considered with the Waste Utility and Waste Diversion Engagement Plan.
3. Additional relocation of collection points to front street from rear lane:
 - Savings would not directly impact the 2018 waste handling budget but would save on lane repair costs and liability from damages. It would also reduce the requirement for future equipment requests as front street collection is more efficient than rear lane, which would reduce future equipment capital. It would result in significant safety performance improvements by reducing the conflicts between collections and lane infrastructure. This option would require completing a review of all route optimization at a cost of \$50,000. Administration recommends this option be pursued as part of the waste utility discussion, in particular, in lanes with significant safety concerns.
4. Reschedule Garbage and Green Cart collections on statutory holidays and provide collection on alternate days:
 - This option could be considered in the future, however, at this time Administration believes it would create a very complicated and undesirable collection schedule. Savings would also be minimized if the Landfill remains open on statutory holidays. The estimated savings for this option are less than \$60,000 and it may not be compatible with bi-weekly collection. This option is not recommended at this time.
5. Removal of the subsidy at the Landfill for loads under 150 kg:
 - Currently loads at the Landfill under 150 kg only pay the entry fee. The removal of this subsidy would make the Saskatoon Landfill non-competitive with other landfills in the region for residents and; as a result, any predicted increased revenue generation may actually become a loss. This option is not recommended at this time.
6. Discontinuing the subsidy for the Compost Depots and Green Cart programs:
 - This option would reduce impacts on the Waste Handling service line by over \$850,000. This option is not recommended as currently there are no other

funding sources identified for these programs, which belong to a different service line. If this subsidy was discontinued, it could mean an increase to the mill rate of 0.21% for the depots and a significant increase to the Green Cart subscription fee. For example, an increase of \$45 (to \$100 total) for each program participant would have been required in 2017 to fully cover the costs of the program. It is anticipated that the increase for 2018 will be greater, due to increases in subscriptions which require an increase in collection fleet size. This option is also not recommended as it does not support long-term diversion targets and the desire for waste sustainability.

7. Increase the number of Garbage Collection days by shifting a portion of collections to Saturdays:
 - This option would reduce the total number of collection points per day, thereby reducing daily collection fleet demands. This could also potentially reduce future capital expenditures associated with increasing fleet size to match City growth. This option is recommended for consideration with the waste utility. Additional analysis would be required to assess which neighbourhoods would be eligible for Saturday collections. This option would also increase the burden on Supervision and support staff (e.g. Occupational Health & Safety). As with the option to relocate rear lane collections to front street, expenditures associated with route-optimization would be required prior to implementation.

An Overview of the Communications Division

Recommendation

That the report of the Acting General Manager, Corporate Performance Department dated September 11, 2017, be forwarded to City Council for information.

Topic and Purpose

The purpose of this report is to provide an overview of the Communications Division including the history, current state, a comparison to other cities and a look forward at emerging trends and needs. The objective is to provide Committee with a thorough understanding about the role, functions, and work of the Communications Division, along with known existing and emerging challenges and opportunities.

Report Highlights

1. Communications became a recognized Division at the end of 2013 and is responsible for four centrally-managed functions including communications, marketing, creative services and community engagement.
2. The current staff complement of 17 staff support the 80 various business lines throughout the City, and is augmented by external communications and engagement services. The majority of the division was formed by taking previously de-centralized staff and functions, and bringing them together into a single division for the expressed reason of optimizing resources and maximizing coordination.
3. Based on the 2017 Civic Services Survey, satisfaction with the quality of City information and communications is strong with an average of 87% being satisfied or very satisfied. With respect to engagement, the survey indicates there is a need for improvement. Approximately 60% of respondents agree that the City allows citizens to have meaningful input into decision making, and that the City uses input from the public in decision-making.
4. The City could save money and increase service to citizens by hiring internal staff to provide more creative services (graphic design) and community engagement functions, which would reduce reliance on external contracts. As such, the Administration will be proposing the addition of two graphic designers and one community engagement consultant in 2018.
5. Going forward, the Administration intends to modify the way it works with lead Councillors for the 10 Strategic Priority Areas to involve them earlier in the communications and engagement planning process for major initiatives.

Strategic Goals

This report supports the Strategic Goal of Continuous Improvement as it supports the strategy to ensure that our approach to citizen and stakeholder communications is integrated, proactive and professional. It also supports the Strategic Goal of Quality of Life by building capacity within the community to address a broad range of issues and build consensus around collaborative responses.

Background

In late 2014, the City of Saskatoon established a Risk-Based Management (RBM) Program and conducted a strategic risk assessment to identify the high, medium and low priority risks. One of the high-priority risks identified during that process was, “the City’s engagement and communications initiatives and opportunities may not be effectively reaching its citizens.”

Since that time, the City of Saskatoon’s Communications Division has either led or supported the implementation of several initiatives aimed at mitigating the risk. Just a few highlights of strategic change include launching of the new website, a Citizen Advisory Panel and an Online Citizen Budget tool.

Report

Overview of the Communications Division

The Communications Division has evolved over time. The functions provided, the current service capacity, and how initiatives are managed and tracked is more thoroughly detailed in Attachment 1. In summary:

- Since 2011, the role of Communications has significantly modernized in order to meet citizen needs and expectations.
- Communications became a recognized Division at the end of 2013 and is responsible for four centrally-managed functions: Communications, Marketing, Creative Services (Graphic Design) and Community Engagement.
- It takes a variety of professional disciplines working together to provide effective and efficient service. As such, a diverse team with corresponding education and experience has been brought together to form the Communications Division.
- The majority of staff increases were the result of merging functions together (58%) and transferring existing FTEs within the corporation (8%). A total of four new FTEs were approved over the last six years.
- The current staff complement of 17 accounts for 0.46% of the corporation’s total employees.
- The division works with 36 business units through the organization to support 80 service lines.
- There is a significant gap in the ability to provide service for the creative services (graphic design) and community engagement functions. These functions are able to provide 50% less service to the corporation than the communications and marketing functions. This contributes to the need to work with external consultants for creative services and community engagement.
- The number of communications and marketing positions correlates reasonably with the initiatives requiring support. In 2017, over 700 initiatives have been identified that require the Communications Division support.
- On average, over 90 engagement activities are initiated annually, which often require different skills and strategies depending on the topic and purpose of the initiative.
- The 2017 Civic Services Survey results indicate satisfaction is very strong in the area of communications (87% satisfaction). However, there is a need for

improvement in the area of community engagement to improve perception that the City provides meaningful input into decision making (60% agree) and uses public input (61% agree).

How We Compare to Other Cities

In order to provide perspective, a comparative analysis was completed between the City of Saskatoon and the Cities of Regina, Calgary and Edmonton. Although Calgary and Edmonton have much larger populations, they are included because they are seen as key benchmark cities in terms of their approach to communications and engagement. Attachment 1, Section III includes more detailed information. In summary:

- Each city structures their communications, functions and scope of services differently.
- The City of Saskatoon and City of Regina provide comparable communications, marketing, and engagement functions. Both cities have less staff capacity to spread within the various functions and to support the entire organization. The City of Edmonton have more staff available per business unit, service line or per capita than the cities of Saskatoon and Regina. The City of Calgary will be similar to the City of Edmonton once they complete centralizing communications across the organization.
- In addition, the scope of services, particularly for creative services and engagement, are significantly greater at both the City of Calgary and City of Edmonton when compared to Saskatoon and Regina. Calgary and Edmonton have invested in internal resources and to rely less on external resources in these areas.

2018 Resource Plan

The Communications Division has developed a plan to address existing service and resource gaps and work towards becoming a more comprehensive, centrally managed service provider. The information in Attachment 1, Section IV identifies a one-year plan to address creative services (more specifically graphic design) and engagement. The plan recommends the addition of two graphic designers and a community engagement consultant in 2018.

Going forward, the Administration will be instituting a new process for obtaining strategic input from the appropriate lead Councillor for their respective Strategic Priority Area. The Administration will consult with the Councillor lead, with the intent to get input early in the process on their views of how best to handle communications and engagement.

Although this will require more lead time for communications and engagement activities, engaging lead Councillors earlier in the process will help ensure that communications and engagement strategies better meet the needs of citizens.

Options to the Recommendation

An option could be to not proceed with the additional graphic designers and community engagement consultant in 2018 and defer for future budgets. However, this is not a

recommended option since it will limit the Division's ability to increase internal capacity and reduce the reliance on external contracts.

Public and/or Stakeholder Involvement

Public or stakeholder involvement was not required for this report. Results from the 2017 Civic Services Survey have been incorporated in order to report on the performance of communications and engagement from the citizen's perspective.

Financial Implications

There are no financial implications as a result of the recommended two permanent full-time graphic designers since this would be funded by reducing reliance on contractual services which are covered by our existing programs. It is anticipated that these additional staff will result in savings of approximately \$28,200 annually beginning in 2019 and will allow the division to increase service hours by over 2,000/year.

The preliminary 2018 Budget includes one Community Engagement Consultant funded by capital programs.

Other Considerations/Implications

There are no communications, public and/or stakeholder involvement, policy, environmental, Privacy, or CPTED implications or considerations.

Due Date for Follow-up and/or Project Completion

A further report will be completed to provide a more comprehensive review of community engagement including best practices, expectation of City Council and the public, and the potential for a City Council Engagement Policy. This report will be presented in the first quarter of 2018.

Public Notice

Public Notice pursuant to Section 3 of Policy No. C01-021, Public Notice Policy, is not required.

Attachment

1. An Overview of the Communications Division – 2018 Resource Plan

Report Approval

Written &

Reviewed by: Carla M. Blumers, Director of Communications

Approved by: Jeff Jorgenson, Acting General Manager, Corporate Performance Department

Attachment 1

AN OVERVIEW OF THE COMMUNICATIONS DIVISION “2018 RESOURCE PLAN”

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SECTION I: INTRODUCTION

In late 2014, the City of Saskatoon established a Risk-Based Management (RBM) Program to provide “a systematic, proactive and ongoing process to understand and manage risk and uncertainty...” Following the adoption of the RBM program, the City conducted a strategic risk assessment to identify the high, medium and low priority risks.

One of the high priority risks identified during that process was, “the City’s engagement and communications initiatives and opportunities may not be effectively reaching its citizens.” Since that time, the City of Saskatoon’s Communications Division has either led or supported the implementation of several initiatives aimed at mitigating the risk—such as the launching of (a) the new website; (b) Service Saskatoon; (c) Citizen Advisory Panel; and (d) online Citizen Budget tool.

With respect to “communications initiatives” it appears that the City’s efforts are working. In fact, the 2017 Civic Services Survey indicates satisfaction is very strong in the area of communications. However, with respect to “engagement” the Survey indicates there is a strong need for improvement. These contradictory results may indicate that, on the one hand, the human resources allocated to the communications (and marketing) function - combined with the use of external contracts - is meeting the expectations of the community. On the other hand, the resources allocated to engagement are not meeting those expectations.

Therefore, the purpose of this report is to provide an overview of the City of Saskatoon’s Communications Division. The report is necessary to offer important perspective about the roles, functions, and work the Communications Division delivers to the Corporation and the community. The primary goal is to educate City Council, Administration and the public about the important work the Communication Division does and how it plans to address existing service gaps. A secondary goal of this report is to identify ways to reduce the reliance on external contracts for core services provided by the division while building internal capacity for a more sustainable future.

To provide appropriate context and analysis on these and other related topics, the remainder of this document is organized as follows:

- ❖ Section II provides an overview of the Communications Division so the reader has an understanding of how the division has evolved over time, what functions and services it delivers, and how it manages and tracks initiatives.
- ❖ Section III provides a comparative analysis between the City of Saskatoon and the Cities of Regina, Calgary and Edmonton. Although Calgary and Edmonton have much larger populations they are included in the analysis because they are often seen as key benchmark cities in terms of their approach to communications and engagement.
- ❖ Section IV outlines a plan for 2018 to address existing service and resource gaps in order to work towards providing a more comprehensive centrally managed service. This is a one-year plan that will help to address the increasing demands for creative services (more specifically graphic design) and engagement.

SECTION II: OVERVIEW OF THE COMMUNICATIONS DIVISION

1. How has the Communications Division Evolved?

Prior to the end of 2013, the City of Saskatoon had two positions in Communications reporting to the City Manager's Office. At the time, the City took a decentralized approach to communications and remaining three other communications positions reported to their respective departments. However, as Saskatoon continued to grow and the demand for City services increased, so did the need for communicating about City programs, services and initiatives. Simultaneously, growth in technology increased citizen expectations around transparency, responsiveness, dialogue and decision making.

In order to align service delivery to meet client, citizen demands and other challenges, Communications began expanding its role in the corporation and officially became a recognized Division at the end of 2013. Adjustments have been made over the past four years to refine the functions and staff complement. The driving force was to integrate effective communications into daily activities to better serve internal clients and the citizens of Saskatoon.

1.1 The Changing Role of Communications and Staff Complement

Table 1 provides a summary of the changing role and staff complements of the Communications Division from 2011 – 2017. The table itemizes the evolution of Communications and its human resources.

Year	Role/Function	Summary of Changes	Total FTE's
2011	Communications & Media Relations	Two FTEs in Communications Branch	5 FTEs
2012		Three FTE's Decentralized	
2013		One new FTE was approved in the 2013 Budget within Infrastructure Services for a Communications Consultant I to assist with day-to-day PSAs for the department.	1 FTE New =6 FTEs
2014	Corporate Communications Digital Programs Customer Service Community Engagement 24/7 Communications On Call	The Corporate realignment took place at the end of 2013. The Communications Division was formed and expanded its role. As a result, one FTE related to engagement merged and one existing FTE was transferred from Public Works to create the first Communications & Marketing Manager assigned to Transportation & Utilities. In February 2014, at the urging of City Council, Communications added 24/7/365 'on-call' communications support.	1 FTE Merged 1 FTE Transferred = 8 FTEs

2015	Corporate Communications Digital Programs Customer Service Community Engagement Marketing Creative Services 24/7 Communications On Call	In 2014, the City implemented the road levy and increased communications support was required to inform the public of significant road construction in 2015. One FTE for a Marketing Coordinator was approved in the 2015 budget for increased communications support for Transportation & Utilities. As part of the corporate realignment, marketing and creative service functions were merged with the Communications Division in late 2015.	6 FTEs Merged 1 FTE New Total = 15 FTEs
2016	Corporate Communications Community Engagement Marketing Creative Services 24/7 Communications On Call	One FTE was approved in the 2016 budget for a Communications Consultant assigned to Community Services. In April 2016, the Service Saskatoon Division was created and took on the digital programs and customer service functions.	1 FTE New Total = 16 FTEs
2017		One FTE was approved in the budget for a Communications & Engagement Section Manager assigned to Corporate Performance and Asset & Financial Management.	1 FTE New Total = 17 FTEs

From 2011 through 2017, the Communications Division grew from 5 staff to 17. This represents a significant improvement in the City's ability to provide the needed service to citizens, which was reinforced with the strong satisfaction levels indicated in the most recent Satisfaction Survey results. Communications Division accounts for 0.46% of the corporation's total 2017 FTEs.

As shown in Table 2, approximately 58% of the change was a result of merging related functions together in order to work towards a providing a more comprehensive centrally managed service. Approximately 8% of the staff increase came from transferring existing FTEs within the corporation. A total of four new FTEs were approved over the last six years (2011-2017). Of the new FTEs (and one transferred) a total of three (60%) of the staff were assigned to support Transportation & Utilities, one (20%) to Community Services and one (20%) to Corporate Performance.

Table 2: Summary of Communications FTE Increases from 2011-2017

Existing FTEs Merged	Transfer of Existing FTEs	New FTEs
7	1	4
58.3%	8.3%	33.3%

1.2 How Positions are Funded

The staff complement as of 2017 are funded by the various departments.

- 5 - Corporate Performance Department, Communications Division
- 6 – Transportation & Utilities Department
- 6 – Community Services Department

Furthermore the positions are funded through a variety of sources including the property tax, capital projects, utility fees, and self-financed programs.

Table 3: How Positions are Funded (Permanent FTEs Only)

Estimates as of September 2017

Property Tax	Capital	Utility	Self-Financed
68%	15%	9%	8%

2. What is our Current Role?

Since 2016, the role of the Communications Division is to ensure the timely and meaningful exchange of information with internal and external audiences through traditional and new digital communication channels. In doing so, it:

- Touches every City program, service and major initiative and provides robust strategies and plans using a combination of internal expertise and external resources.
- Works as a strategic partner with 36 business units throughout the organization to develop and facilitate cross departmental interactions and disseminate information using multiple channels (paid & earned media, City-owned digital, paid online).
- Provides 24/7/365 on-call communications support to the corporation to ensure citizens are informed on service interruptions.
- Supports 80 service lines responsible for delivering diverse programs and services to Saskatoon residents and businesses.
- Assists in building and maintaining the City's reputation and raising awareness of the long-term vision of the City.
- Fosters public engagement throughout the corporation by developing strategies, tools and tactics to create opportunities for the public to contribute to decision making on policies, programs, services and projects.

3. What are our Principles?

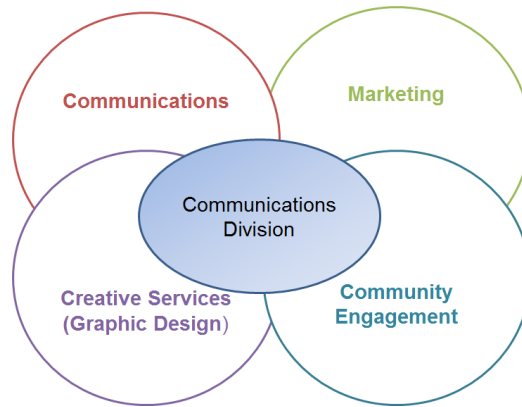
The following 10 principles were created to guide the Communications Division in performing its duties.

- 1) Act as "One City" to better connect services, programs and facilities to the City of Saskatoon and make it easier for residents to identify the source of messages.
- 2) Update citizens on day-to-day matters.
- 3) Appeal to the diverse audiences through creative campaigns.
- 4) Integrate communications and engagement early on and throughout the planning stages.
- 5) Bundle related programs/services together to make it easier for citizens.
- 6) Take a digital-first approach so citizens can access on their own time and own devices.
- 7) Develop an engaging personality so the community is empowered to build a better city.
- 8) Build capacity within the corporation so that everyone is able to provide effective and timely communications and engagement on programs and services.
- 9) Have adequate financial and human resources to communicate effectively while still be able to respond to issues.
- 10) Empower staff with information to be ambassadors for the City.

See **Appendix 1** for more details on the Communications Division's 10 Principles.

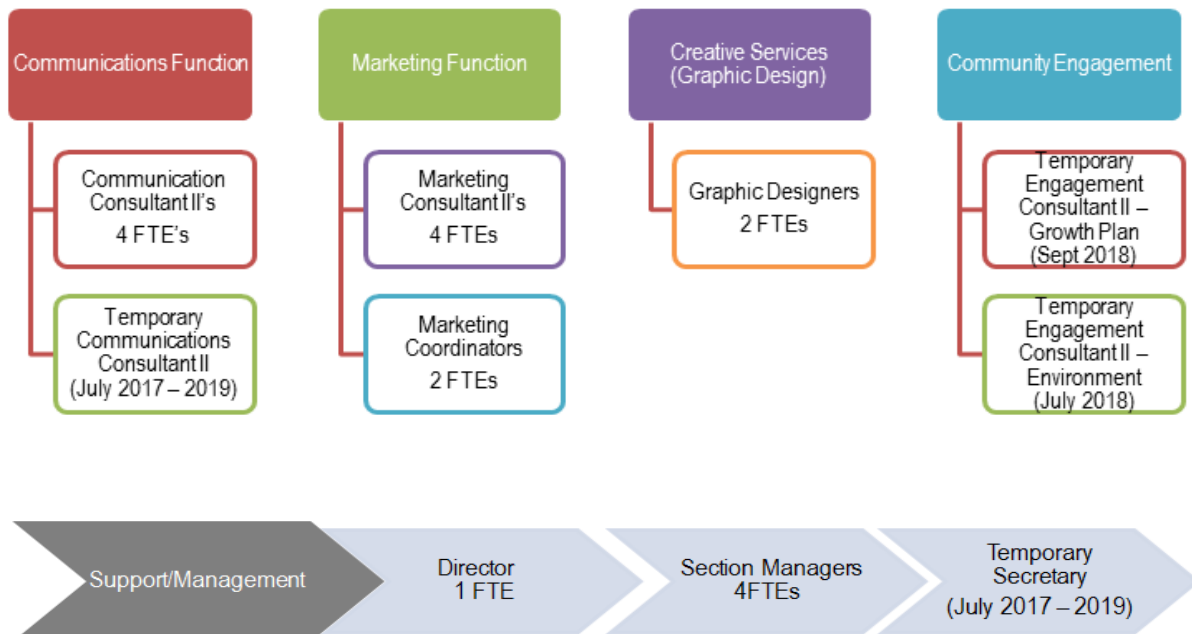
4. What are our Functions?

The Division’s centrally managed functions include: Communications (corporate, public and employees), Marketing (revenue generating, user fee programs and services), Creative Services (Graphic Design), and Community Engagement (corporate including the Civic Services Survey, Citizen Budget, public and stakeholder).



The lines between the functions overlap to some degree. However, each of these functions has a unique role and corresponding education as outlined in **Appendix 2**. Staff need to understand how each of these functions work together, but it takes a variety of disciplines to provide effective and efficient service in all functions.

As of September 2017, the Communications Division has 17 Permanent FTEs and 4 temporary positions. As noted above, each function has a unique role and corresponding education. Therefore, it is important to look at the breakdown of staff available by function to support the corporation.



Four section managers oversee a mix of staff to support the corporation and the various programs, services and initiatives. Their responsibilities are assigned by either department or function:

- i. Transportation & Utilities Department
- ii. Community Services Department
- iii. Corporate Performance Department and Asset & Financial Management Department
(includes City Manager's Office, City Solicitors Office, City Clerk's Office and Saskatoon Fire Department)
- iv. Community Engagement (Function)

4.1 Service levels provided by function

One way to understand the amount of service (capacity) that the various functions of the Communications Division provides to the organization is by looking at the ratio of staff to each business unit and by service line.

Table 4 shows that creative services and community engagement staff must be responsible for significantly more business units (or service lines). This means the staff must spread out their time across more business units (or service lines) leaving each with less time available to support the large number of projects and initiatives.

Table 4: Estimated Service by Function (as of September 2017 including permanent only)				
	Communications	Marketing	Creative Services	Community Engagement
Total Staff by Function*	5.25	7.25	3.25	1.25
# of Business Units	36	36	36	36
# business units supported by each staff (rounded)	7	5	11	29
# of Service Lines	80	80	80	80
# of service sines supported by each staff (rounded)	15	11	25	64
*Includes permanent staff as of 2017 with one Section Manager within each function and .25 for the Director of Communications. The figures do not account for the 5-7 Communications and Marketing Consultant II positions time for providing 24/7/365 'on-call' service outside of regular office hours				

5. How do we Track and Manage our Work?

As noted earlier, the four section managers oversee a mix of staff to support the corporation and the various programs, services and initiatives. Their responsibilities are assigned by either department or function. Each section manager is responsible for planning, tracking, and controlling the work they undertake to serve their assigned department(s) or function. The information below explains how they accomplish this and the volume of initiatives they are responsible to oversee.

5.1 Department Section Managers

Prior to 2017, the Community Services (CY) Marketing Section developed a project tracking database to account for the department initiatives requiring support. These initiatives range from ongoing programs and services, new programs and services, partnerships, capital projects, etc. In

2017, the two other section managers implemented their own project tracking databases for their assigned portfolios.

As of 2017, over 700 initiatives have been identified between the 3 databases. Some initiatives may be missing since two databases are new and in the first year of development. Staff will account for these additional items during the year to better reflect the needs and expectations moving forward. Furthermore, the information may not accurately capture the following unique events:

- unplanned activities that result from service disruptions (power outages, water main breaks, road detours)
- unplanned issues impacting department and/or division operations or the larger corporation (i.e. labour disruptions, provincial budget impacts)
- new direction and decisions from Council or Committees of Council
- the expectation that 5-7 of the Communications Division staff (33%) shares the responsibility of being in a 24/7/365 on-call rotation

Table 5: 2017 Communications Division: Projects by Department		
Corporate Performance and Asset & Financial Management Departments	Transportation & Utilities Department	Community Services Department
195	245	275

The size and scope of each initiative varies. In some cases, only standard tools (PSA, website, and social media) may be required. In other cases, the initiative may require the development of a detailed plan, creative and graphic design, and a variety of traditional and digital tools (radio, television, billboards, print and digital ads, special events, e-mail campaigns, brochures, internal communications, etc.).

With over 700 initiatives and 16 staff (excluding the Director) within the functions of communications, marketing and creative services, it means every staff person must complete all aspects of an initiative every 5.7 days (assumes 2,000 work hours per year and an 8-hour work per day). Using information from previous years, Table 6 demonstrates how the size and scope of these initiatives can range (1.7 days, 10 days, 53 days) which significantly impact the available staff time.

Initiative	Description	Estimated Work Days
Leisure Services Rates, Fees and Campaign	Research occurred in 2014 and plan development began. Plan development and implementation continued in 2015. Time spanned over these two years. Involved approximately two marketing professionals and one graphic designer.	318 days/2 years 158 days/3 staff = 53 days per staff
Kensington Neighbourhood Marketing Plan	Kensington Marketing Plan which involves a Marketing Consultant and Graphic Designer to plan, design and implement the annual community marketing plan involving tv, radio, billboard, digital, print, etc. Required a one marketing professional and one graphic designer.	20 days 20 days/2 staff =10 days per staff
Annual Dog Day of Summer Event	Involves marketing and graphic design to plan, design and execute promotions (PSA, poster, website updates). Event logistics all by client. Required one marketing professional and one graphic designer.	3.5 days/ staff =1.75 days per staff

5.2 Community Engagement Function

At this point, it is beneficial to elaborate on community engagement so that there is a clear understanding of what it entails. As shown in Table 7, the International Association of Public Participation (IAP2) has adopted a spectrum of public engagement. As you move through the spectrum there is a corresponding increase in expectation for public participation and impact. When 'informing' stakeholders there is no expectation of receiving feedback, and consequently there is a low level of public impact. At the other end of the spectrum, 'empowering' stakeholders to make decisions implies an increase in expectations and an increased level of public impact.

Inform	Consult	Involve	Collaborate	Empower
Provide the public with balanced and objective information to assist them in understanding the problem, alternatives and/or solutions.	Obtain public feedback on analysis, alternatives and/or decisions.	Work directly with the public throughout the process to ensure that public concerns and aspirations are consistently understood and considered	Partner with the public in each aspect of the decision including the development of alternatives and the identification of the preferred solution	Place the final decision-making in the hands of the public
<ul style="list-style-type: none"> fact sheets websites open houses 	<ul style="list-style-type: none"> public comment focus groups surveys public meetings 	<ul style="list-style-type: none"> workshops deliberate polling 	<ul style="list-style-type: none"> citizen advisory committees consensus-building participatory decision-making 	<ul style="list-style-type: none"> citizen juries ballots delegated decisions

There is an increasing level of public impact and corresponding skill and depth required as you progress through the spectrum.

It may be assumed that the level of difficulty involved in the engagement process increases as you move through the spectrum (i.e. inform being perceived as easier than empower). However, no part of the spectrum is harder or more preferable than another but, there is a need for different skills and depth as you move through the spectrum. The level of engagement should match the purpose or goal of engagement in order to be effective. More details regarding the IAP2 spectrum are found in **Appendix 3**.

As of September 2017, the Communications Division has one FTE assigned to a community engagement manager and two temporary engagement consultants assigned to the Growth Plan and environmental initiatives. Given this, the corporation is reliant on staff within the various divisions to manage their engagement activities on a daily basis. Most of these staff come from varied backgrounds (engineers, communications, marketing, planners, etc.) and have not necessarily been formally trained in engagement, particularly for deeper levels of engagement as you move through the spectrum.

With the above in mind, internal staff across the organization can deliver on the 'inform' and 'consult' stages of the spectrum, but often require the skill and depth of external consultants in order to have a more meaning impact. Four communication consultants provide general support to the earlier stages of the IAP2 public engagement spectrum (inform and consult) for the various initiatives.

Table 8 summarizes the number of community engagement events and surveys accounted for in 2013 to 2017. On average, over 90 engagement activities are held each year with each requiring various types of engagement within the spectrum.

Table 8: 2013-2017 Summary of Community Engagement Activities

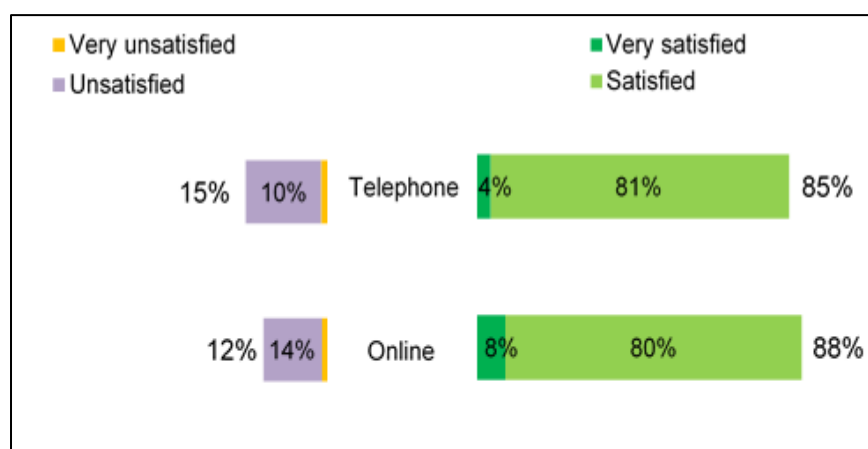
Year	Total Engagement Events and Surveys	Notes
2013	74 7 rezoning 7 online/telephone surveys 10 Town Halls 12 neighbourhood, park, sector plans 14 local area plans 24 other	Up until the end of 2013, a Community Consultant position managed a manual system for tracking community engagement events and surveys. The primary role was to provide logistics support and general oversight of engagement activities.
2014	113 14 rezoning 36 online/telephone surveys 15 neighborhood, park, sector plans 9 local area plans 39 other	In April 2014, the Community Consultant position was replaced with a Communications Consultant II (Engagement). The primary role expanded to provide advice and prepare engagement plans for various projects. The position maintained a manual system for tracking community engagement events and surveys. Milestone: Launch on the Shaping Saskatoon Online Tool, new dedicated engagement site for developing the City website resulting in over 10,000 visits, 1,000 survey completions and 1,700 people voted on various polls.
2015	89 15 rezoning 4 online/telephone surveys 24 neighborhood, park, sector plans 12 local area plans 44 other	The position became vacant at the end of January 2015 and the FTE was used to hire a Communications Consultant II assigned to the Corporate Performance Department and to support the Service Saskatoon function, which was an increasing corporate and Council priority. A manual system was used for tracking community engagement events and surveys, but without a dedicated staff there is less confidence in the total identified. Existing communication consultant IIs provided support primarily to the "Inform" and "Consult" stages of engagement. Milestone: The Citizen Budget online engagement tool was launched in October 2015.
2016	n/a	In June 2016, a temporary Engagement & Communications Section Manager was put in place to oversee the work in Corporate Performance, Asset & Financial Management, and the Community Engagement function. The engagement events and surveys were not tracked but an online tracking system was established by the end of the year along with a Citizen Advisory Panel. A temporary Communications Consultant II (Engagement) was hired and assigned to the Growth Plan in September 2016. Milestones: The Citizen Advisory Panel was launched in early 2016. A new internal Community Engagement Share Point site was launched to better track and coordinate engagement activities and generate automated email updates.
2017 (Jan-July)	92 71 Events 21 Surveys 5 Citizen Advisory Panel Activities	A new FTE was approved in the budget for a permanent Engagement & Communications Section Manager. The position was filled in April 2017. With the increasing importance of engagement and the recognition that this is a unique function/discipline, a vacant FTE was used towards creating a new section and hiring a Community Engagement Section Manager. A temporary Community Engagement Consultant has been hired and assigned to Environmental Initiatives.

6. How is our Performance?

In order to better measure performance for communications and community engagement, the City of Saskatoon added new questions in the 2016 and 2017 Annual Civic Services Survey. The following information summarizes performance results from the perspective of citizens.

6.1 Communications

A new question was added to the 2017 Civic Services Survey. Residents were asked to rate their satisfaction with the overall quality of City information and communications in the 2017 Civic Services Survey. Overall, satisfaction is strong with 85% telephone and 88% online respondents being satisfied or very satisfied (87% average).



The corporation has established a “Satisfaction” Performance Target of 90%. Based on the 2017 results, the City’s communication’s activities are making progress towards achieving this satisfaction target.

6.2 Community Engagement

In 2016 and 2017, respondents in the Civic Services Survey who had contact with the City or participated in City engagement in the past 12 months evaluated their perception around engagement. As shown in Table 9, on average there has been a slight improvement in the perception that the City allows for meaningful input into decision making particularly among online respondents. On average there has been an improvement in the perception that the City uses input in making decisions particularly among online respondents.

Table 9: 2017 Civic Services Survey: Engagement				
Personal experience: interacted with the City in the past 12 months (excludes 'not sure')				
	2017 Telephone/Online Average		2016 Telephone/Online Average	
	Agree	Disagree	Agree	Disagree
The City allows citizens to have meaningful input into decision-making	68% (T) 52% (O) 60%	27% (T) 36% (O) 32%	70% (T) 46% (O) 58%	26% (T) 37% (O) 32%
The City uses input from the public in decision-making about City projects and services	69% (T) 53% (O) 61%	24% (T) 32% (O) 28%	70% (T) 43% (O) 57%	25% (T) 35% (O) 30%

7. Summary & Observations

With over 700 initiatives and 16 staff (excluding the Director) within the functions of communications, marketing and creative services, it means every staff person must complete all aspects of an initiative every 5.7 days (assumes 2,000 work hours per year and an 8-hour work per day). However, the size and scope of these initiatives can range anywhere from 1 day, 10 days or over 50 days which significantly impacts the available staff time.

The 36 business units (or 80 service lines) requires communications, marketing and graphic design support to ensure staff and the public have meaningful information around programs and services using a variety of traditional and digital channels. As staff work through these 700 initiatives, they must ensure the 10 principles of communications are integrated into their recommendations, plans and approaches.

Based on the information in Table 4, the Communications Division has a gap with the ability to provide service for the creative services (graphic design) and community engagement functions.

These functions are able to provide 50% less service to the corporation than the communications and marketing functions. The primary reason is that communications and marketing have more staff resources assigned. As a result, communications and marketing staff spread out their time across less business units (or service lines) as compared to creative services and engagement. This contributes to the need to work with external consultants for creative services and engagement.

Currently, the community engagement function is able to provide minimal support to the corporation. Given the importance of engagement in Saskatoon, this area requires attention and an investment in qualified engagement professionals. The expectations are changing and it is important that the City of Saskatoon has the ability to utilize all levels of engagement.

As noted earlier, no part of the spectrum is harder or more preferable than another but, there is a need for different skills and depth as you move through the spectrum. The level of engagement should match the purpose or goal of engagement in order to be effective.

Although Communication Consultants can provide some support, the function will require additional qualified staff to build a foundation from which the organization can further evolve. Given that there is currently one person assigned to the function of community engagement, the corporation is reliant on staff with varied backgrounds within the various divisions to manage their engagement activities on a daily basis.

SECTION III: HOW WE COMPARE TO OTHER CITIES

The Communications Division does have a proposed plan to begin to address the existing lack of resources for creative services and community engagement. However, before doing so, this section attempts to provide a comparison of the City of Saskatoon to three other western Canadian cities. The information was obtained from a variety of sources including 2016 Annual Reports, 2017 Budgets, discussions with the Directors and/or Managers, and from related material from each of the four cities websites.

Each city has a different approach to how they are structured, and the types of services or scope of work they provide utilizing internal staff resources. Given the different approaches it is difficult to do an “apples to apples” comparison. However, most cities have or are in the process of moving to a centralized service and a functional-based structure.

1. What are the Reporting Structures?

Table 10 provides an overview of the reporting structure for the four cities. Of particular interest is that in March 2016, the City of Edmonton elevated its communications and engagement functions by creating a new department. In other cities, these functions are embedded in a department/office responsible for several other activities.

Table 10: Reporting Structure by City (2017)			
Saskatoon	Calgary	Edmonton	*Regina
Corporate Performance Department	Chief Financial Officers	Communications & Engagement Department	Organization & People (Executive Director)
Communications Division	Customer Service & Communications	Communications Branch & Engagement Branch	Communications & Customer Experience
Total FTEs – 17	Total FTEs – 182.4 (Based on 2017 Budget)	Total FTEs – 288.3 (Based on 2017 Budget)	Total FTEs – 15 + 33.5 = 48.5 (Based on 2017 Budget)
a. Corporate Performance/ Asset & Financial Management b. Transportation & Utilities c. Community Services d. Community Engagement	a. Public & Employee Engagement & Communications b. Creative Services c. Customer Service, 311 & Research	a. Communications b. Engagement i. 311 ii. Public engagement c. Marketing d. External Relations	a. Communications b. Interactive Communications c. Branding & Marketing d. Public Engagement e. Service Regina
In the Budget Book: Spread among the budget book between Corporate Governance & Finance Business Line Recreation & Culture Business Line (Marketing Services) and Transportation	In the Budget Book: Director's Office Creative Services Customer Service, 311 & Research Public & Employee Engagement & Communications	In the Budget Book: Communications Branch Engagement Branch	In the Budget Book: Communications Service Regina

*In early 2017, the City of Regina modified their organizational structure. Communications, Service Regina and Human Resources is now one department – “Organization & People”. Previously, Communications reported to City Clerk & Governance.

2. How do Services Compare?

As demonstrated in Table 11, each City is expected to provide communications, marketing, creative services and engagement functions. However, the way each city is structured differs along with the types of services and scope of work they provide with their existing human resources. The significant difference between the other cities is that the City of Saskatoon has separate divisions who manage the functions of media relations (along with social media) and customer service (including digital programs). The Media Relations Division currently has 2 FTEs and the Service Saskatoon Division has 3 FTEs. The City of Regina has approximately 33.5 FTEs in Service Regina including casuals. In addition, the City of Calgary and City of Edmonton provide an increased scope of creative design services (i.e. more than graphic design) and invest more in community engagement than both the City of Saskatoon and the City of Regina.

Table 11: Types of Services and Scope of Work by City

Saskatoon	Calgary	Edmonton	Regina
<p>Communications: Responsible for corporate communication channels, employee communications, webpage and social media content, content for PSAs and news releases, leading the City's annual Civic Services Survey, corporate brand and reputation, the corporate Intranet and providing support for the Inform and Consult stages of engagement.</p>	<p>Public & Employee Communications: Responsible for corporate communication channels, employee communications, corporate marketing, media relations, crisis communications, social media, and the City's website.</p>	<p>Communications: Helps City departments to provide information to City staff and the public. It provides advice, consultation, communications planning and programs, advertising and graphics services, media relations, council services and civic events services.</p>	<p>Communications: Leads corporate and program communications with the public and the media as well as corporate internal messaging.</p>
<p>Marketing: Provides marketing support to City departments, programs and projects</p>	<p>Advertising (Creative Services): Lead creative production, writing, editing, photography, video / motion graphics, illustration, print / multi-media production, brand and visual identity and media buying.</p>	<p>Marketing: Building the City of Edmonton's brand, ensuring a single, clear voice to citizens, communities, and stakeholders, and supporting Council's vision of building a great City.</p>	<p>Interactive Communications: Manages social media and City website, online surveys and intranet content.</p>
<p>Creative Services: Responsible for graphic design.</p>	<p>Customer Experience/Research, Leads the City's statistical process, corporate research, leads the City's annual Citizen Satisfaction Survey, facilitates research for business, and responsible for customer service/311.</p>	<p>Engagement: The branch connects citizens with their City through a variety of communication channels. Includes engagement services and customer services/311. Engagement advises the City organizations on innovations in engagement and coordination of surveying and has taken on an elevated importance. Responsible for overseeing a Council engagement policy and an Administrative Framework.</p>	<p>Branding & Marketing: Responsible for City brand for all corporate documents and provides marketing support to City departments, programs and projects.</p>
<p>Community Engagement: General coordination of engagement throughout the corporation. Provides advice on development and implementation of engagement and a variety of engagement tools.</p>	<p>Engagement Responsible for overseeing a Council engagement policy and an Administrative framework.</p>	<p>External Relations: Provides public sector, private sector and post-secondary support.</p>	<p>Public Engagement: Development and implementation of engagement best practices and large corporate public engagement projects.</p>
	<p>Strategy Business Operations Web/Digital</p>		

3. What is the Capacity of each City to Provide Service?

As shown in Table 12, the City of Saskatoon and City of Regina are comparable in the number of business units or services lines that the staff in each function are required to support. What is very apparent is that the City of Calgary and City of Edmonton are able to provide more service to each business unit (or individual service lines). Both of these cities have more staff for each function, therefore each individual's time is spread across less areas allowing them to provide more support. Moreover, there is a significant gap in Saskatoon and Regina's ability to provide support for creative services or engagement to their respective organizations.

Table 12: Comparison of other Cities (2017 Estimates)				
*Customer Service/311 Excluded				
Various assumptions were made to derive estimated breakdown of staff by function and number of service lines	Saskatoon	*Calgary	Edmonton	Regina
Staff				
Communications & Marketing	12	25.7	63.5	12
Creative Services	3	22	31.3	0
Engagement	1	15	15	2
Directors Office	1	3	2	1
Total Staff	17	65.7	111.8	15
Business Units	36	43	42	31
# of Business units supported by each staff by function (rounded)				
Communications & Marketing	3	2	1	2.5
Creative Services	12	2	1	0
Engagement	36	3	3	15.5
Service Lines (estimate only)	80	108	108	89
# of Service Lines supported by each staff by function (rounded)				
Communications & Marketing	7	4	2	7
Creative Services	27	5	4	n/a
Engagement	80	7	7	44.5
Employees				
Employees	3,658.9	16,643	15,324	2,847
Total Staff	17.0	65.7	111.8	15
Ratio of staff to employees	215	253	137	190
Population				
Population	266,064	1,318,817	969,068	223,604
Total Staff	17	65.7	111.8	15
Ratio of staff to population	15,651	20,073	8,668	14,907
Source: Stats Canada CSD Population Estimates - Custom 2017				

*The City of Calgary began a corporate restructure in approximately 2014 and began centralizing communications across the corporation. The total staff identified for the City of Calgary does not accurately include the communications, marketing, creative services and engagement staff who have not been merged with the Customer Service and Communications Division. It is anticipated all staff will be centralized in approximately 2018.

4. Summary & Observations

The preceding analysis reveals several important points worth noting. First, each city structures their communications and related functions differently. They also provide a different scope of services with internal staff and account for their expenditures (budget) in different ways.

Second, using some assumptions about the information available, the results indicate the City of Saskatoon and City of Regina are providing comparable service for communications, marketing, and engagement. Both cities offer a similar scope of services and the staff must be responsible for a significant number of service lines so their time is spread relatively thin compared to other cities. The City of Saskatoon provides 24/7/365 “on-call” communications support while the City of Regina has a less formal arrangement with staff. Furthermore, the scope of services with creative services and engagement are significantly greater at both the City of Calgary and City of Edmonton.

Third, when looking at the size of the organization based on FTEs, the Communications Division is comparable to the average of the four cities. This comparison provides a good indication that, overall, the division is not over-resourced given the variety of functions it delivers.

Fourth, when looking at the population base of each municipality, the number of staff in the Communications Division is lower than the City of Edmonton and likely the City of Calgary once they complete their centralizing. Furthermore, the population of a city is also likely to impact the operating budgets since the costs related to the quantity of printing, placement and distribution for communication and marketing materials increases.

Fifth, both the City of Saskatoon and City of Regina are comparable in the number of business units or services lines that staff in each function are required to support. What is very apparent is that the City of Calgary and the City of Edmonton are able to provide more service to each of these areas.

Sixth, there a significant gap in Saskatoon and Regina’s ability to provide support for creative services and community engagement to the corporation. The City of Saskatoon has two graphic designers on staff while the City of Regina outsources this service. Both Saskatoon and Regina provide approximately half the amount of engagement service as the City of Calgary and the City of Edmonton, who operate closer to a full service agency and engagement firm. As a result, the City of Saskatoon’s Communications Division must rely on a variety of temporary staff and external contracts for various creative services (graphic design, writing, videography, media buying, etc.) and community engagement functions.

Finally, the City of Saskatoon and City of Regina have secured a corporate “Agency of Record” and outsource many aspects of communications, marketing, and creative services to support the organizational needs. The City of Regina uses the agency of record for all graphic design services while with the City of Saskatoon currently has two staff supplemented with an agency. Both the cities of Saskatoon and Regina are also more reliant on external consultants to support community engagement activities. In contrast, the City of Calgary and the City of Edmonton have significantly

evolved and invested in building internal capacity. Furthermore, the City of Calgary and City of Edmonton have adopted a more strategic approach to engagement through the implementation of a Council Policy and Administrative framework which ensures a more consistent and coordinated approach to engagement. These are models to which the City of Saskatoon can look to improve its community engagement function in the future.

SECTION IV: 2018 RESOURCE PLAN

Based on the analysis and findings, the Communications Division has identified staff resources be included in the 2018 Business Plans to begin to address the challenges identified in this report.

1. Creative Services: Graphic Designers

Graphic design is a core function that is the responsibility of the Division. There is sufficient graphic design services for the Community Services Department (2 FTEs) while other business units primarily require the services provided by the corporate Agency of Record.

The approved Agency of Record, Creative Fire, has the contract with the City to provide a wide range of communications and marketing services on an as needed basis. The contract value is up to a maximum of \$600,000 annually not including GST. Communications assigns work to the Agency of Record on a project-by-project basis. The costs for these services are paid within the approval annual Capital and Operating budgets for the division requiring the services.

The current Agency of Record contract will expire in February 2019. In preparation for any future contracts, the Communications Division will begin to build internal capacity in 2018. This will allow the division to successfully transition to providing more internal service while ensuring negotiations for a corporate agency of record appropriately reflect our needs in the future.

Communications is recommending hiring two full-time positions in 2018. Their positions would be funded by reducing current contractual services which are covered by existing programs. As a result, there would be no impact to property taxes. In effect, a portion of the graphic design work previously assigned to the Agency of Record would be done internally, something the current contract permits.

In the future, it is anticipated that these additional staff will result in savings of approximately \$28,200 annually beginning in 2019. Furthermore, the positions will allow the Division to increase service hours by over 2,000/year.

2. Community Engagement

Given the growing importance and expectations around public engagement, the community engagement function is significantly under-resourced. The Communications Division has one FTE which has just been recently filled utilizing a new job description to better reflect the education and experience related to this discipline. In addition, there are two temporary positions assigned to large corporate initiatives.

The City of Saskatoon is relying on existing staff with varied backgrounds (engineers, communications, marketing, planners, etc.). Most of these staff have not been formally trained in the area of public engagement to particularly as the needs move further down the spectrum. Furthermore, without a Council Policy and Administrative framework to provide strategic direction, it leaves Division staff with little guidance and direction when making choices around approaches to engagement. That said, the City of Calgary and City of Edmonton are both leaders in the area of community engagement and recognize this as a unique discipline and function.

In looking at the City of Calgary and City of Edmonton, it is estimated that they each had at least three to four dedicated FTEs in 2010/2011 as a foundation. This was before engagement took on an increased importance and role in their organizations. Since this time, both cities have or are on their way to tripling their staff resources closer to 15 FTEs (not including operating and capital budget investments).

The entire future of community engagement for the City of Saskatoon requires a comprehensive review. This should include an understanding best practices and the expectation of City Council and the public, along with a Council Policy. This exercise will be the major priority of the Community Engagement Manager in 2018 and 2019. However, at minimum, some foundational staff resources should immediately be considered. The preliminary 2018 Budget includes one Community Engagement Consultant funded by capital programs.

Even with this new resource it is anticipated that significant corporate projects (i.e. Growth Plan and large Policy driven decisions) will require the use of external engagement contracts and the use of professional research firms. However, this new resource will help to establish the basic framework required to support earlier stages of engagement (inform, consult and involve) while building expertise related to later stages (collaborate and empower).

A more comprehensive report on the longer term financial and human resources required to develop a sustainable engagement team will be the subject of a future report.

3. Temporary Staff

Overall, there appears to be adequate permanent and temporary staff resources assigned to the functions related to communications and marketing. The Division currently has one temporary Communications Consultant II position until approximately July 2019. In order to provide better service to the various service lines it is recommended that the temporary position be extended into 2020 and transition to a permanent FTE in 2021. Communications will continue to require the services of an Agency of Record to address some initiatives moving forward. Additional resources may be required if there is a desire to provide more service to the organization and as our scope increases (i.e. Corporate Intranet, new capital projects, etc.).

Currently, the Division is utilizing a temporary Secretary until approximately July 2019. This has allowed the current staff complement to focus their time on their disciplines and functions rather than diluting their efforts by performing administrative duties.

Appendix 1 – Communications Division Principles

The following 10 principles were created to help guide communications, marketing, creative services and community engagement decisions for the Division:

1. **Act as “One City”** – Better connect services, programs and facilities to the City of Saskatoon with a consistent and recognizable face and voice to make it easier for residents to identify the source of public service and promotional messages. This approach will reduce confusion on who is delivering the service, make it easier for citizens to connect with City services, and better demonstrate the value citizens receive for their tax dollars.
2. **Update Citizens on Day-to-Day Matters** - Communicate effectively and efficiently so that citizens know what programs and services the City provides, and what to expect when there are service interruptions or changes that may impact them today and tomorrow.
3. **Appeal to Audiences** - Appeal to the diversity of the public through creative campaigns that use plain language, strong visual designs and storytelling. A cookie cutter approach doesn't work so a variety of tools must be selected to meet the diverse needs of the public, staff and stakeholders.
4. **Integrate Early On** - Ensure communications, marketing, creative services and engagement plans are developed in the early planning stages of initiatives rather than at the end. Build relationships and collaborate with external partners and the over 30 Divisions to develop communications, marketing and engagement plans so citizens are 'in the know' about new initiatives at all stages of the project.
5. **Bundle for Ease** - Bundle related programs and services together to make it easier for citizens to connect with services. The City offers hundreds of services and it is our job to help make it easy for them to find what they need when they need it. To do this, we often bundle or link services to improve the experience of our residents.
6. **Take a Digital-First Approach** - Design communications, marketing and engagement activities with a digital first approach. Exponential growth in technology has brought about increased citizen expectations, with residents wanting access to timely and digitally accessible information they can access on their own time and on their own devices.
7. **Develop an Engaging Personality** - Ensure the community feels engaged and empowered to build a better city. Demonstrate the City's commitment to engaging the community in meaningful dialogue, so they feel involved in Shaping Saskatoon and see how their input was used in decisions.
8. **Build Capacity** - Build capacity within the corporation so that everyone is able to provide more effective communications, marketing, creative services and engagement on programs and services in a timely manner.
9. **Resources** - Have adequate financial and human resources to communicate, market, design and engage but also have the ability to respond to issues and crisis situations while maintaining ongoing support to departmental programs and services.
10. **Empower Staff with Internal Communications** - Empower employees and elected officials to be ambassadors for the City of Saskatoon. Share information in advance so employees and elected officials are well informed and able to generate positive messages surrounding City programs, services and initiatives.


Appendix 2 – Differences in Disciplines

Function	Description	Education	Work
Communications	COMMUNICATIONS focuses on <i>informing</i> the public, stakeholders and employees. At a high level the areas of focus include corporate or city-wide initiatives, internal communications, government relations, labour relations, etc. - Focus is one way communications	Communications students are trained in broad areas such as professional writing, organizational communications, public relations, journalism and public speaking, Taught fundamental tools, process and techniques for communicating. - Bachelor of Communications or Communications Diploma	Focuses on developing and implementing communications strategies and plans, creating corporate content (website, news releases, business plans, annual reports, financials, newsletters), creating and implementing corporate visual identity standards, internal communications and employee relations, corporate intranet, etc.
Marketing	MARKETING focuses on influencing consumers to purchase a product or service. Marketing messages are tailored to particular groups broken down by age, gender, etc. Focus is on creating diverse marketing campaigns, pricing and distributional channel strategies to impact purchase behaviour. - Focus is one way marketing	Marketing students are trained in marketing strategies, market research and segmentation, consumer behaviour. They study in the field of commerce to successfully market a product/service to an intended consumer. - Bachelor of Commerce, Marketing Major or Marketing Diploma	Focuses on revenue generating products/service or those with a fee attached. Work on product/service marketing and branding strategies, brand identities, promotional campaigns, advertising, market research, pricing and distribution channel strategies, sponsorship programs, etc.
Creative Services	CREATIVE SERVICES (Graphic design) focuses on the <i>visual display</i> of information. Graphic designers create and combine symbols, images and text to form visual representations of ideas and messages. They use typography, visual arts and page layout techniques. - Focus is on visual display -	Graphic Design students are trained in both traditional and digital design as well as publishing, advertising, print-ready production and communications. They learn electronic file management, industry-standard software applications, print management and production. - Education ranges from a Certificate, Advanced Certificate, Diploma, Degree	Focuses on graphic design for print and digital materials such as web images, reports, brochures, flyers, newsletters and marketing and promotional campaigns including print ads, displays, posters, digital advertisements, etc.
Community Engagement	PUBLIC ENGAGEMENT focuses on <i>involving others</i> in decision making to create better decisions and foster better relationships. It focuses on listening to what others need and then incorporating that into what you do (government policy, planning and development, programs and services, etc.). - Focus is on two way dialogue -	Engagement students are trained in methodologies and processes to consult, involve, collaborate and empower the community the influence decisions. - Ranges from a degree in Human/Social Sciences (political studies, psychology sociology), Education and Planning a Masters in Community Engagement and IAP2 Certification	Focuses on developing engagement policies, framework, strategies and processes. Identify and work on implementing engagement methods such as focus groups, community events, workshops and other deliberative forums. Provide facilitation and conflict resolution skills. May work on training programs.

Appendix 3 – IAP2 and City of Edmonton’s Spectrums of Public Engagement

1. International Association of Public Participation (IAP2) Spectrum of Engagement

IAP2 PUBLIC PARTICIPATION SPECTRUM

INCREASING LEVEL OF PUBLIC IMPACT 				
INFORM	CONSULT	INVOLVE	COLLABORATE	EMPOWER
Public Participation Goal:	Public Participation Goal:	Public Participation Goal:	Public Participation Goal:	Public Participation Goal:
To provide the public with balanced and objective information to assist them in understanding the problems, alternatives and/or solutions.	To obtain public feedback on analysis, alternatives and/or decisions.	To work directly with the public throughout the process to ensure that public concerns and aspirations are consistently understood and considered.	To partner with the public in each aspect of the decision, including the development of alternatives and the identification of the preferred solution.	To place final decision-making in the hands of the public.
Promise to the Public:	Promise to the Public:	Promise to the Public:	Promise to the Public:	Promise to the Public:
We will keep you informed.	We will keep you informed, listen to and acknowledge concerns and provide feedback on how public input influenced the decision.	We will work with you to ensure that your concerns and aspirations are directly reflected in the alternatives developed and provide feedback on how public input influenced the decision.	We will look to you for direct advice and innovation in formulating solutions and incorporate your advice and recommendations into the decisions to the maximum extent possible.	We will implement what you decide.
Example Tools:	Example Tools:	Example Tools:	Example Tools:	Example Tools:
<ul style="list-style-type: none"> • fact sheets • web sites • open houses. 	<ul style="list-style-type: none"> • public comment • focus groups • surveys • public meetings. 	<ul style="list-style-type: none"> • workshops • deliberate polling. 	<ul style="list-style-type: none"> • citizen advisory committees • consensus-building • participatory decision-making. 	<ul style="list-style-type: none"> • citizen juries • ballots • delegated decisions.

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2. City of Edmonton’s Spectrum of Public Engagement

The City of Edmonton’s spectrum is used as a tool that explains the four roles the public can play when they participate in public engagement activities. As you move within the spectrum, there is an increasing level of public influence and commitment from the City and the public.

An important feature of the Edmonton model is how they view communications in the role of public engagement. Edmonton clearly identifies activities that support effective public engagement but in doing these activities is not considered public engagement. They have removed the “inform” stage found in the IAP2 spectrum since this is viewed as communications and not two-way dialogue and is required at all stages of public engagement.

If the intent is to inform or educate the public on programs, services and initiatives this falls within the responsibility of communication experts/function.

PUBLIC ENGAGEMENT SPECTRUM

What is the appropriate role for the public? Can we aspire to more influence and commitment?



Service Saskatoon – Open Data Update Report

Recommendation

That the Standing Policy Committee on Environment, Utilities and Corporate Services recommend to City Council that:

1. That the City engage in an Open Data program; and
2. That the Administration be directed to develop a detailed strategy to implement the recommendations outlined in the MPATH report and report back by April 2018.

Topic and Purpose

A citizen first approach to service development and delivery is a priority for the City of Saskatoon. This report provides progress highlights on a community engagement initiative to inform the development of strategy and program design for the next iteration of the City's Open Data program.

Report Highlights

1. The current Open Data program is not sustainable in the manual format. This does not ensure accurate or relevant information is provided.
2. Administration partnered with MPATH Engagement in early 2017 to manage a community engagement initiative regarding Open Data.
3. Administration supports the recommendations outlined in the City of Saskatoon, Open Data Program - Stakeholder Engagement & Strategy report prepared by MPATH Engagement (Attachment 1).
4. Cities involved in next generation open data initiatives are working to make their programs more user-friendly so they are usable, useful and used.
5. A detailed strategy for moving forward on an Open Data Program would be consistent with other cities actively involved in Open Data programs.

Strategic Goal

This report supports the Strategic Goal of Continuous Improvement with a focus on providing reliable and responsive information to the citizens of Saskatoon. Service Saskatoon is one of the 4-Year Priorities in the Strategic Plan.

Background

The original Open Data Catalogue pilot project was presented to City Council on August 15, 2012. The pilot project received approval for \$40,000 for a capital project to engage with the local develop community and to establish a beta site to publish City data sets.

The catalogue was populated with a number of data sets that were static in nature. Static data sets in the current catalogue are not consistently updated, and as a result, the information may not be current and accurate. The process of creating, uploading, and maintaining data sets is currently a manual process. Updates require an IT staff to manually upload the data. Typically new data sets are added if a citizen requests a data set from the City. Usually the GIS team is asked to create a new data set, or share an

existing data set. Prior to publishing the new data set, a pre-Personal Information Assessment is prepared and submitted to City Clerks prior to loading it to the open data catalogue. Currently, there are no dedicated resources for the Open Data program.

Report

Current Status

The current Open Data pilot project was developed with short notice. As a result, there was no long-term plan for development nor is the program sustainable without dedicated resources to ensure accurate, relevant and useable information.

While the current Open Data Catalogue is a good pilot, when the Administration compares with other cities that are getting started, the majority of data sets are static and need to be updated manually. This manual process means that many data sets are not updated in a timely manner. Updates are being done when IT staff have a chance, which is infrequent, and not necessarily when a division updates the program to which the information data set is relevant.

Currently, the only live data set that is being provided is the live transit location data being used by the Transit app and Google maps. Beyond this data set, the Administration does not have analytics that show how current data is being used.

Minimal community engagement was performed when the City initially launched the pilot project. The data sets are mostly what Administration thought might be interesting and useful to citizens and application developers.

Community Engagement Initiative

MPATH engagement partnered with the City to manage a community engagement initiative in early 2017. An online survey was promoted to the Citizen Advisory Panel (CAP) and to the general public through a number of online and newspaper ads.

The survey gathered input from 565 participants, 43% of the participants identified as citizens of the City. Other key demographic segments included local businesses, software developers, community partners and journalists. A follow-up focus group discussion was hosted to explore more detailed topics around implementation.

Administration supports the Key Learnings and Recommended Strategies outlined in the MPATH report. Some of the key recommendations are:

- The City formalize an Open Data program as a recognized civic service delivered in a manner consistent with other civic programs.
- The City adopt the position that access to data is congruent with citizen values and expectations that would satisfy the desire of improving the transparency and accountability of the City.
- The City develop a process that access to data be a customer service opportunity through a consistent, efficient and responsive method.
- Ongoing engagement with external stakeholders be utilized to determine the value of accessible data prior to expending effort and resources to provide it.

- That the City develop strategies to identify and manage potential positive and negative impacts of increased access to information or data.

Open data is a significant step for cities striving to ensure open governance, transparency, democracy and accessibility for citizens and interested persons to the information cities gather through normal operations.

Next Generation Open Data

Large North American cities have been involved in Open Data for a number of years. Many have found that they have made efforts to share a variety of data sets; however many are not being used. Cities have begun to understand that it isn't the quantity of data sets made available but rather that the information provided is wanted and in a consumable format. Stakeholders should determine what they would like to see made available through community engagement.

Open Data leaders like New York City and Boston have begun to launch new, user-friendly home pages for their Open Data websites. The new sites are easier entry points for "data novices" to get acquainted with city data and to empower citizens "to understand how their city works through the information it produces."

The program recommendations in the attached MPATH report will help guide the City to develop an open data program that is sustainable and provides positive value for citizens. The ultimate success of the program will have a great deal to do with the amount of collaboration it supports and the discretionary effort that citizens and businesses invest in it.

In order to implement next-generation open data, an appropriate vision, mandate, and resource strategy will need to be developed. If Council approves the recommendations outlined in this report, the Administration will develop this plan and present it by April of 2018. Public benefit will be a significant factor in the strategy, in that if the City is spending money on making data available, there should be a clear benefit to citizens.

Public and/or Stakeholder Involvement

This report is recommending continued and regular public and, or stakeholder involvement to ensure the open data program meets the needs of our community.

Other Considerations/Implications

There are no options, communications, policy, financial, environmental, privacy, or CPTED implications or considerations.

Due Date for Follow-up and/or Project Completion

A further update will be provided on the open data initiative in late fall 2017.

Public Notice

Public Notice pursuant to Section 3 of Policy No. C01-021, Public Notice Policy, is not required.

Attachment

1. City of Saskatoon - Open Data Program – Stakeholder Engagement & Strategy – MPATH Engagement – June 2017

Report Approval

Written by: Rob Gilhuly, Project Manager
Reviewed by: Pat Hyde, Director of Service Saskatoon
Approved by: Jeff Jorgenson, Acting General Manager, Corporate Performance Department

CP EUCS PH Admin Report – Service Saskatoon – Open Data Update Report

City of Saskatoon
Open Data Program
Stakeholder Engagement & Strategy
MPATH Engagement
June 2017



MPATH

EXECUTIVE SUMMARY

Engagement Overview

MPATH partnered with the City to manage a community engagement initiative to inform the strategy and program design for the next iteration of the City's Open Data program. Stakeholder engagement focused on three main areas: 1). Understanding community priorities regarding the type of data citizens want available, 2). The underlying values and motivations for the community to participate, and 3). The specific technical requirements and expectations for service delivery.

An online survey gathered input from 565 participants, 43% of whom identified as citizens of the City. Other key demographic segments included local businesses, software developers, community partners and journalists. A follow-up focus group discussion was hosted to explore more detailed topics around implementation.

Key Learnings

Citizens who participated were primarily concerned with transparency and accountability. This suggests the Open Data program is an opportunity, but one that carries an expectation it be used to build trust and knowledge with citizens. Following their interest in seeing the program support transparency and accountability, participants were most interested in learning more about the City's infrastructure as well as programs and services the City offers.

There was clear consensus among participants who identified as developers about their preferred formats for accessing data from the City. The preferred format for data are consistent with general software industry formats i.e. JSON, XML and web services. These formats are notably different than how most internal employee audiences would consume or produce this type of data, which would generally be in document or spreadsheet formats such as Microsoft Office or Adobe PDF.

The developers who completed the survey showed the most interest in developing applications for local residents and businesses. Most developers who participated in the survey possessed intermediate to advanced levels of skills and experience in development applications. Developers were generally uncertain about deriving revenue from their development efforts.

Recommended Strategies

The value of an Open Data program is its ability to support desired outcomes for the City and its citizens. The technology or data itself is best viewed as an enabler of an outcome. The ultimate success of the program will have a great deal to do with the amount of collaboration it supports and the discretionary effort that citizens and businesses invest in it.

Community partners, such as software developers, local businesses and community organizations, will be instrumental in using the data to create benefits for citizens. Enabling participation of community partners should be a focus area and actively supported through communication, programs, and incentives as required.

The City should invest in the development of in-house data visualization tools for citizens to use on the City website. These web-based dashboards should be both interesting and easy to use. The underlying data sets used should be selected based on citizen interest, and where there are known gaps in knowledge levels among citizens about the costs and logistics of providing City services.

To support responsive service delivery, optimized internal processes and a well-defined governance structure are needed to support efficient decision-making for the release of data. This includes a clear mandate, with decision-making authority delegated according to a common policy framework. The formal adoption of an *open by default* position regarding the City's data will help to enable a culture of transparency and openness. This makes the exceptions the focus of the work, rather than data being closed by default, with every request for data requiring significant time and resources to process. To realize the potential of the program, additional full-time resources are required in key areas responsible for service delivery, such as Service Saskatchewan and IT, with other business areas offering support. The potential for automation and efficiency should be considered when making decisions around internal resourcing.

Internal employees are a key stakeholder group when looking at the potential for data sharing and collaboration, as the availability of business data within the City will present opportunities for reporting and analytics and improved collaboration among divisions when delivering services.

STAKEHOLDER ENGAGEMENT REPORT

PREPARED BY: MPATH Engagement

CLIENT: City of Saskatoon

PROJECT: Open Data Program Engagement

DATE: June 13, 2017

KEY RESEARCH FINDINGS

1. Citizens who participated were primarily concerned with transparency and accountability.

This is an important finding. It speaks to citizens' underlying values and their general expectations of the City.

This program presents an opportunity to showcase the City's willingness and ability to be genuinely transparent and collaborative. The opportunity to use technology as a part of a program provides the City with an opportunity to deliver an innovative program agenda that will enhance the City's reputation locally and nationally, even internationally as a "smart city".

2. Citizens are interested in apps that have practical benefits.

Citizens prioritized their second and third choices as being "Discovering more about services and programs in the community" and "Saving time when accessing information or data from the City".

This is the practical, experiential side of the citizen priority set emerging. This is where there is the most potential for high-frequency interactions that create memorable benefits for citizens and businesses in their day to day lives.

In terms of developers creating apps that citizens are most likely to download, and potentially pay for, the information sources behind practical, useful applications should be given priority when making data sets publicly available.

3. Developers have specific requirements to provide quality products

In order to create real-time, responsive digital services, developers want data in modern formats. These formats do not in any way resemble paper-based methods of disseminating information i.e. PDF or Word documents. In fact, not a single developer who participated indicated PDF as a desired format to receive information.

The preferred formats for accessing information were JSON, XML and web services. Other use case-specific formats were also mentioned when building applications for scenarios such as GIS mapping.

4. Developers have uncertainty about potential financial rewards

Among the developer respondents, there was uncertainty as to whether open data would result in income-generating activities. While some developers may have philanthropic motivations, or the discretionary time available to develop applications without the expectation of compensation or some equivalent benefit, the lack of incentive in place is likely to limit the potential of the program.

5. Citizens are largely dependent on the City to help them engage in and realize the value of the program

The availability of data and value being created from its use are two different matters entirely. The City should ensure that the pure availability of data is not seen as being the end goal of the program, but rather as a useful application to accomplish a citizen priority.

In this scenario, citizens will require some tools and technology to help them turn a raw data source into a useful application or a visualization that tells a story. These tools that turn the data into something of value will need to be provided to citizens by either by the City, or by developers who take the initiative to develop applications.

PROGRAM RECOMMENDATIONS

Program Design and Delivery

1. Consider the data as a means to an end.

The value of an Open Data program is in its ability to support desired outcomes for the City and its citizens. Avoid focusing on the technology or data itself as anything more than an enabler of an outcome. The ultimate success of the program will have a great deal to do with the amount of collaboration it supports and the discretionary effort that citizens and businesses invest in it. Much of the success of the program will not relate to the technology itself. Clay Shirky's quote below speaks to the importance of simplicity and accessibility when supporting participation.

“Communications tools don't get socially interesting until they get technologically boring.” - Clay Shirky

2. Formalize the Open Data offering as a recognized City service.

Manage an Open Data program in a manner consistent with the delivery of any other City program, with dedicated FTEs, communications budgets, defined service levels, metrics for measuring performance and accountability for results.

New types of programs, particularly those that are digital in nature or reliant on specialized technical knowledge, can take time to mature and become a widely-utilized service. As a comparison, consider the limited role that the City website played in service delivery when it was launched 15 or 20 years ago. Utilization and adoption will grow over time, however, the resources required to deliver a service that meets the expectations of the community will require some concerted investments in time and resources. Simply put: invest in the program according to its long-term strategic potential, not solely according to usage in the early stages of the program.

3. Adopt a position on data access that is congruent with citizen values and expectations.

In the survey, most respondents indicated their top priority was “improving transparency and accountability of local government”.

Citizens increasingly expect the City be transparent. It is reasonable to believe that citizens also expect ready access to information managed by the City, unless there is a clear rationale, for privacy or security reasons, that granting access is not appropriate.

The City needs to take a clear position on making data public. That is, whether the information held by the City is considered public or private by default.

Adopting an “open by default” position may be met with some internal resistance, particularly within areas of the organization that historically act as gatekeepers to information. These are a clearly identifiable set of risks, particularly when practice has been either overzealous or overly reticent in sharing data.

4. Develop an efficient, consistent, and responsive method for providing access to data.

We recommend providing access to data be approached as a service request, rather than a Freedom of Information request. The City currently manages its service delivery infrastructure to manage a high volume of the former, and comparatively few of the latter. The distinction here is important, as a service request tends to be approached more as a customer service opportunity, and an FOI request as a potential reputational risk.

It will be important to develop a model for service delivery for the Open Data program that does not attempt to treat decision-making around access to every potential data set as it would an FOI request. In trying to do so, the program would almost certainly fail for reasons ranging from unacceptable service-levels to excessive costs.

What is critical is the ability to develop an approach that is scalable, consistent and disciplined in its execution, while adhering to some form of central governance, and has defined processes and tools in place to provide efficient delivery.

5. Consider how open data fits as a part of a strategic, long-term opportunity to increase efficiency and provide enhanced value for money

A recent McKinsey report suggests that up to 52% of Canada's jobs could be replaced by some form of automation using adaptations of today's technology. As service delivery at counters using paper forms give way IoT (Internet of Things) technology, smart sensors, artificial intelligence (AI) and other forms of automation, there is no question that many functions currently provided by City employees could be replaced by some form of automation.

Much of the future potential of open data lies in the practice of making data accessible to machines. Of course, there is ample opportunity for creative uses of the information by people enabled by this approach but in making data machine-readable, the potential for automation and analysis is multiplied.

To illustrate, if you imagine information-driven transactions and even others such as permit requests, being comprised of the following elements:

- Accepting standardized information as an input;
- Validating the authenticity of the request;
- Taking an action according to a pre-defined policy or service standard;
- Providing a resulting output back to the originator of the request;
- If applicable, collecting any financial payment; and,
- Logging the transaction within the City.

You can see the potential for digitizing entire transactions. In fact, some parts are currently automated. Security requirements or items that require minimal and limited or no decision-making are generally automated. Entire end to end transactions could be fully automated with little or no human involvement, with open data sources and machine-accessible digital services infrastructure comprising part of that scenario.

For example, the City could provide a series of lots for sale using a machine-readable data set where the tendering process is managed electronically. Some developers use technology to determine lots that fit their criteria for bidding and automatically send in bids.

6. Use ongoing engagement to determine the value of data before expending effort to provide it.

Avoid the temptation to prioritize the release of data that is considered low-effort, or that suits the agenda of the City more than external stakeholders.

The decisions around the data that is prioritized made publicly available should be informed by external audiences. The library should be curated to ensure that the effort to maintain access to data is worth the investment of time, and so as not to compete with data sets that are considered to be high-value by external stakeholders.

7. Plan for potential risks

Not all transparency and data sharing efforts by the City will reflect positively on the City. While some tolerance for reputational risk goes with territory, it will be important to establish strategies for how to identify and manage the positive and negative impacts to the City resulting from increased access to information.

RESOURCE RECOMMENDATIONS

Organizations generally have several degrees of centralization when it comes to decision-making for any given function. There are three main types, with some overlap:

1. **Fully centralized:** all decisions and execution take place in a single place. The rest of the organization focuses on referring to the central hub or solely executing according to the centralized decision-making model;
2. **Hub and spoke:** a partially decentralized model supports some distributed decision-making. A further extension of this model is a *multiple hub and spoke* model where the centralized influence is less predominant and more delegated to each node; and,
3. **Distributed:** Each unit is empowered to act with relative autonomy in terms of decision-making and execution.

Fully centralized models of delivery have some advantages i.e. consistency of execution, but also suffer from limitations. These limitations include: potential constraints in scalability and responsiveness in service delivery as well as being too far removed from customers and daily business operations to be customer-centric in decision-making and execution.

Centralized models of delivery can also have the effect of impeding the development of the organization in developing necessary technical capabilities over the long term. The approach to designing the organization's structure for service-delivery should balance the requirements for responsiveness to customers and associated organizational risks. A view towards on a desired long-term model of service delivery should be contemplated early on.

For competencies that are required for providing service to citizens, we recommend integrating decision-making capacity as close to the point of service delivery as possible, with a conscious focus on maturing the entire organization's capacity to support a service philosophy of "first-contact resolution" and responsive service.

Suggested roles, responsibilities and time allocations:

General Manager Corporate Performance

Role and Responsibilities:

- Assume overall responsibility for the City's performance and service delivery;
- Provide appropriate supports and resources in the form of representing the program at a corporate level, providing oversights to program design, providing budget for internal FTEs, ensure access to supporting technology, providing a decision-making governance framework, approving policy definition and appropriate metrics for performance measurement; and,
- Recommended FTE: N/A

Service Saskatoon

Role and Responsibilities:

- Define requirements for citizen-facing digital service channels;
- Act as initial point of contact for citizens, business and community partner inquiries regarding the program;
- Facilitate engagement with citizens, businesses and community partners in making decisions and setting priorities for dataset access; and,
- Development of requirements.

Recommended FTE:

- 1.0 FTE as a new position with the necessary skillset to be responsible for coordinating program delivery across the organization

Corporate Communications

Role and Responsibilities:

- Provide communications support to develop program awareness and promotion; and,
- Provide key messaging for promotional on social channels and any crisis communications support.

Recommended resource:

- Managed within existing resources with resource assigned to the portfolio and support from division director.

City Clerk's Office

Role and Responsibilities:

- Participate in the development of policies for data management; and,
- Act as an escalation point for complex cases and as a resource to division directors and the program executive sponsor for senior-level decision-making around release of open data

Recommended resources:

- 0.2 to 0.5 FTE
- More efforts will be required at the outset of the project to develop policies and standards and provide education to the divisions as they become more competent at decision-making regarding data release and management

Individual Divisions as Organizational Data Owners

Role and Responsibilities:

- Identify existing datasets for potential release to citizens;
- Identify any known risks to security or privacy; and,
- Respond to external requests for open data access i.e. existence of desired data set, and initial evaluation for suitability of sharing and refer to IT to determine time and effort to integrate dataset or migrate to public data catalogue

Recommended resources:

- 0.2 FTE per division, with one resource designated by the director as the Open Data champion, with responsibility to act as primary liaison with Service Saskatoon and the division director, and be able to approve the release of information to the public online data catalogue, according to pre-defined policies.

Information Technology

Role and Responsibilities:

- Identify existing inventory into logical dataset groupings that could be released as public data;
- Implement integration tools i.e. internal middleware or Integration as service tools that manage security and access;
- Procure, develop and manage technology platforms that integrate and host the open data assets in the forms used for providing public access i.e. (REST, JSON, CSV, etc.); and,
- Provide enterprise architecture recommendations for how the City's data sources can be transitioned to platforms to enable public access, in accordance City privacy and security policies.

Recommended resources:

- 1.0 FTE initially with some dedicated time allocated primarily to one individual with some other efforts being required from specific roles on the team i.e. enterprise architecture. Depending on program design and value realized from creation of internal and external efficiencies, this allocation could warrant allocation of additional resources of 2 or more FTEs in the future.
- Once more than a single IT resource is available, create discrete roles for data management and access activities, such as: integrating with existing legacy systems to provide ready access to existing datasets; aggregating and anonymizing private and operational data into a data warehouse that is optimized for external access; developing dashboards for internal City division staff and executive; work with Service Saskatoon to develop APIs and web services for external development partners; and collaborating with and providing support to local developers; meet with local businesses and community organizations with Service Saskatoon program coordinator; create documentation and code examples for the developer open data portal.

RECOMMENDATIONS FOR KEY STAKEHOLDERS

Internal Staff

1. Support internal staff in the transition

New forms of access to information and services through automated channels will inevitably conflict with human services. This may be perceived as more of a threat than an opportunity for some internal staff. Ensure that staff have an appropriate forum to address these concerns, particularly if the program is received unfavourably. It will be important to ensure that service delivery and citizen experience is not negatively impacted.

2. Support collaboration around data sharing between divisions and functional areas

A significant opportunity for use of open data exists by staff in other divisions. Ensure that staff are aware of new data sets as they become available, using the intranet and other internal communication tools. Provide an internal set of visualization and reporting tools for staff to use for their own internal business use. Allow staff to publish any customized reports internally to support internal collaboration.

3. Provide incentives for staff to engage in data sharing and internal collaboration projects

Provide opportunities and incentives, through performance management processes or recognition programs, for City staff to share and collaborate with other departments. This can also be easily extended to external stakeholders as well.

Provide some form of recognition that supports the message that transparency and collaboration, internally and externally, is valued.

Potential examples:

- Each division contributes to developing a centralized inventory of business data with an internal expert contact identified to support collaboration internally.

Citizens

1. Provide citizens simple and usable data visualization tools.

Most citizens will not have the technical ability to create data visualizations or web applications using data. As a part of empowering citizens to engage with the information, the City should provide tools for citizens to be able to consume data using dashboards in order to contextualize the information.

Tools often used for internal use, such as Microsoft Power BI, or the more experimental Sanddance software, can be considered as a way to provide a method for data visualization. A demo of this Microsoft application is currently available at sanddance.ms.

Other potential interactive tools could include interactive budgeting tools such as those used by the City of Chicago in partnership with the Participatory Budgeting Project. More information is available on this initiative at pbchicago.org.

Also consider developing detailed tools that help citizens explore the financial impact of granular operating decisions that affect citizen-facing service delivery i.e. changing the frequency of waste pickup or snow clearing, using specific cost data i.e. cost of operating snow-clearing equipment on a per-km or per-hour basis.

These types of interactive tools can be easily published on the City's social media channels as interesting and shareable information.

Integrate public data access and collaboration into an audience-driven engagement program brand

Positioning a program around its enabling technology tends to shift the focus away from the audience and the value it is intended to provide. Consider how communication on this program can be focused on the “what” instead of the “how”. The enabling technology will continue to change over time, as new innovations are incorporated, but allowing the technology itself to dominate the communication may result in the program being more exclusive than inclusive.

2. Help citizens contextualize the rigour involved in the responsible management of business and private citizen data.

A few participants commented on how simple they believe it would be for the City to provide access to data sources, given that “it is all on computers”. In order to avoid criticism for assigning resources to the project rather than “real” problems like fixing roads, build out a communications narrative that explains the volume of data the City manages, how it ensure privacy is respected and the process for how public data sources are identified and released.

DEVELOPERS

Facilitate and promote structured opportunities for participation around the program to support citizen and developer involvement

As the participation in this type of program by developers and citizens is almost completely discretionary, consider how involvement can be supported by the City. Consider how incentives such as contests, hackathons, citizen voting, prizes can help maintain the profile of the program and provide an incentive for participation.

Partnerships with businesses, academic institutions, and community organizations can also help to increase participation and engender ownership in the community.

Consider some of the following ideas:

- Hiring a “developer in residence” as a term or part-time role to work on open data-related projects and apps;
- Provide mentoring opportunities for co-op students to work with City IT professionals on managing open-data and providing support to external developers;
- Host hackathons for developers to collaborate on projects for local community organizations;
- Providing a forum for citizens to suggest and vote on ideas for the City to fund the development of apps;
- Provide a crowd-sourced community database where the City can provide hosting for the community to contribute its own datasets that can be leveraged by other organizations to use in building community-focused apps; and,
- Installing common community infrastructure assets such as Bluetooth low energy beacons and providing access for local developers to leverage in their app development.

COMMUNITY PARTNERS/BUSINESSES

Support community organizations and businesses as groups who are among the most likely to contribute to economic outcomes

Community organizations and businesses are the most likely to use public data as a part of their business operations. The opportunities to assist this audience will benefit from ongoing discovery and engagement, but there is considerable potential to support these organizations as they contribute to the City's local economy.

The learnings from this audience are discussed as a part of the findings from the focus group research exercise. A group was convened to focus on the needs and experiences of the organizations that have some form of business or community relationship with City.

Potential examples:

- Develop and manage a service line of data access and development services focused on enabling the economic activities of local businesses and community organizations:
 - Facilitate the collection and housing of data for community initiatives
 - Make dedicated resources available to create web services and APIs that automate routine transactions that business have with the City
- Create a prospect list of businesses that the City engages with to better understand their needs for data and digital services
- Facilitate collaboration among likeminded businesses and community organizations to help them attract outside investment

FOCUS GROUP SUMMARY

MPATH hosted a focus group with participants invited from the community that fit the following criteria:

- Participated in the online survey;
- Volunteered to be participate in a focus group; and,
- Had a role where they had experience using City data for some function relating to their job role or had an interest in accessing public data.

Topics Discussed:

- Areas of greatest potential for using open data in the community;
- Barriers to achieving that potential and ideas to overcome;
- Engaging citizens in the use of open data in the community; and,
- How the City could support community leaders like them in this process.

Key Findings:

1. Participants reported having inconsistent experiences when making inquiries to the City about public dataset

In their experience, success in locating data for the individuals who commented in the group was largely based on having foreknowledge about the best person to contact with the requisite corporate memory. In some cases, finding the information meant contacting a given resource who had moved to a different position, but still had the most knowledge.

Even after successfully locating the most knowledgeable staff resource, participants reported some inconsistency around decision-making to release the information. Staff were perceived to be unnecessarily cautious in providing permission and some staff could be more easily persuaded to release data if you caught them on a “good day”.

Potential methods to improve this experience could include the following:

- Being able to efficiently determine if a data set is held by the City without having to know the department or individual responsible, ideally through an online service; and,
- Provide additional metadata about the data source i.e. data quality score, internal sponsor/owner, available formats, and level of readiness and availability for public access

2. Ease of use and accessibility was seen as a key to engagement and relevance

The group emphasized the importance of factors relating to the quality of the user experience when accessing data to provide citizens with a compelling reason to continue engaging. Ideas such as data visualization, usable interfaces, ability to provide input, and incentives were mentioned as possible methods to support engagement for citizens. Providing developers with data in formats optimized for their use was also seen as important.

3. Individuals working on initiatives in the community are sometimes isolated

Working through the uncharted waters of locating undiscovered data sets to create something for the good of the community can be challenging and frustrating. The City can support the individuals and organizations who take the initiative to do this work by supporting networking opportunities for these parties to connect.

DATA ASSET INVENTORY

Methods of Access

When completing the inventory, we recommend that the City identify the readiness of internal data sources to be published online, primarily according to the preferences of the developer audience who would be using them to develop web and mobile applications

- Ability to provide in a structured, machine-readable format
- Ability to support automated and real-time availability
- Method of available access supporting desired usage i.e. real-time service data being available in a real-time format

An inventory of key data sets was previously recommended for completion as a part of planning for this engagement and the next phase of the Open Data program. The online survey used a series of categories to better understand stakeholders' priorities around the kinds of data they are most interested in.

In order to facilitate some benchmarking with other Canadian cities and in the event that the City wishes to participate in a collaboration initiative in the future, we used the categorization published by Canada's Open Data Exchange (CODX) initiative as a starting point for our internal planning.

The categories used by CODX when evaluating performance of Canadian cities' open data programs are as follows:

- Government budget
- Election data
- Council expenses
- Council voting records
- Census data
- Lobbyist information
- Public facilities and structures
- Company register
- Municipal permits
- Code enforcement violations
- Construction contracts
- Procurement contracts
- Property assessments
- Park inventory

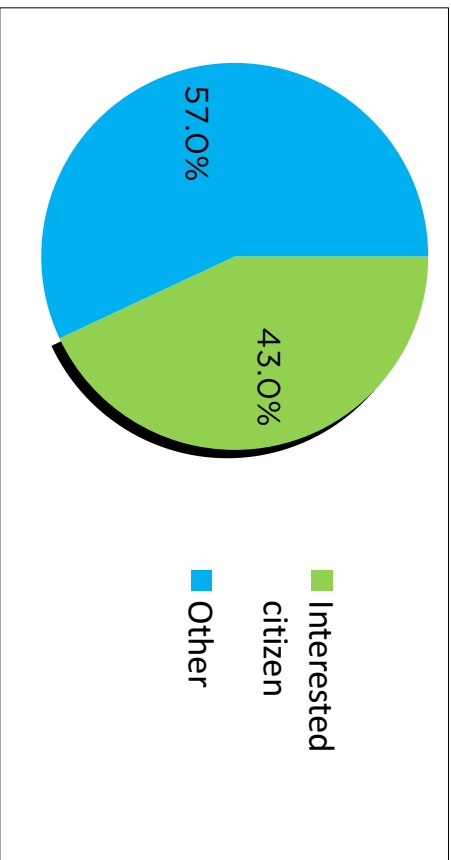
- Public transit
- Real-time transit
- Traffic volumes
- Traffic accidents
- Road closures
- Service requests (311)
- Zoning (GIS)
- Base GIS data (roads, addresses, etc.)
- Restaurant inspections
- Health performance
- Education performance
- Crime statistics
- City services
- Bylaw infractions
- Environmental services
- Air quality
- Recreational programs
- Web analytics

Additional sub-categories and meta data may be added as additional discovery is completed and we learn more about data sets that are of particular interest to stakeholders.

ONLINE SURVEY RESULTS

Audience Profile

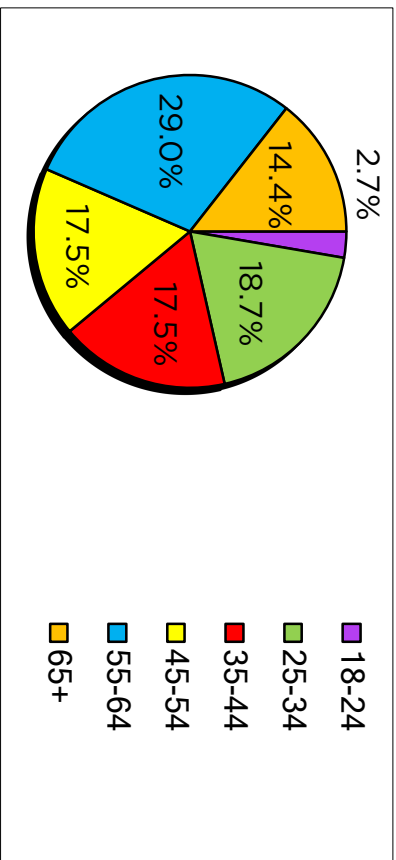
Which of the following best describes you?



The vast majority of respondents identified as interested citizens. The remaining respondents break down as follows:

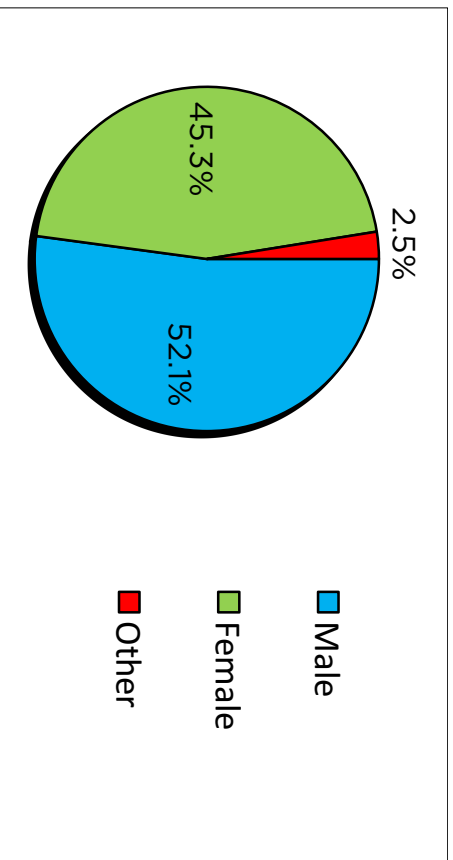
- Volunteer or community staff - 30
- Student or academic - 27
- City employee - 20
- Local business - 19
- App developer - 17
- Democracy advocate - 5
- Journalist/media - 4
- Blogger - 1

Age



The age breakdown is widely distributed and skews slightly older than the actual population, with 29% aged 55-64 vs. 14% of the population in the 2011 census. The variance is due to a low number of 18-24 respondents.

Gender

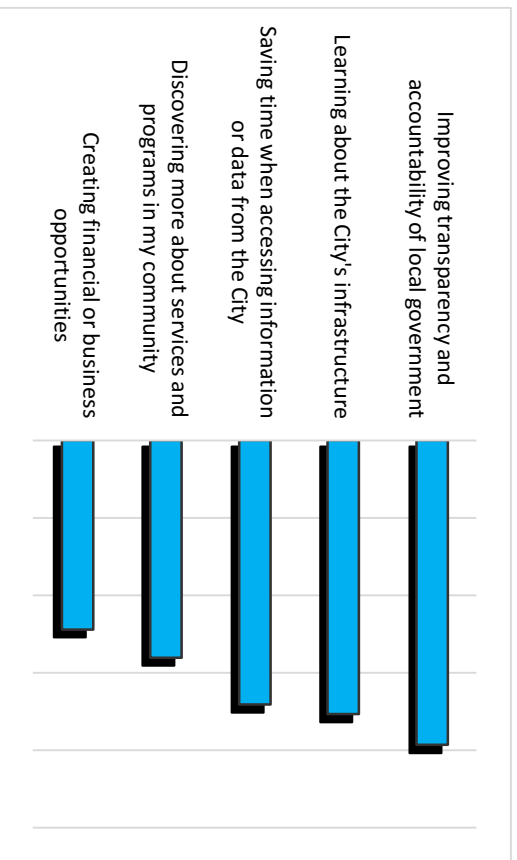


The gender split is relatively even and skews slightly male compared to actual population.

ONLINE SURVEY RESULTS

ALL RESPONDENTS (565)

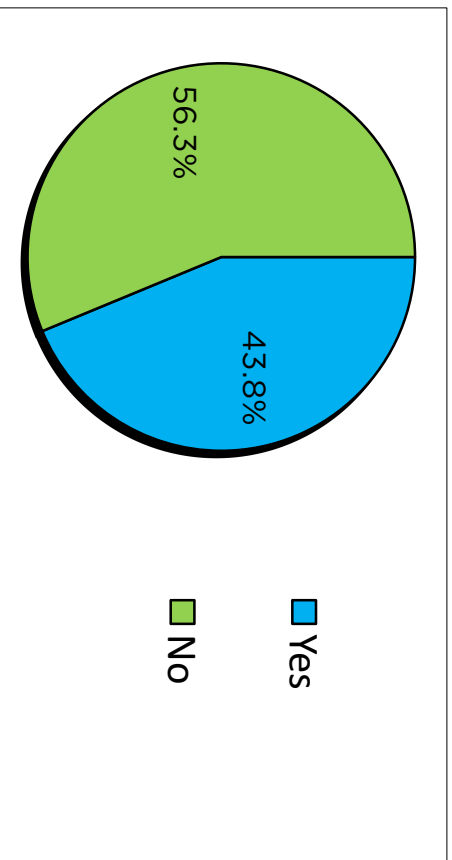
Order the following in terms of how they reflect your priorities.



This data predominantly reflects a citizen perspective, as citizens made up the majority of participants. As shown, the top priority was improving transparency, followed closely by learning more about community programs and saving time. Creating business opportunities was rated as the lowest priority; in addition to receiving the lowest average rating it was rated as the lowest priority by 45% of respondents.

JOURNALIST/BLOGGER RESPONDENTS ONLY (32)

Is there data or information that you currently request from the City via telephone, in-person or paper channels that you would prefer to access via an open data program?

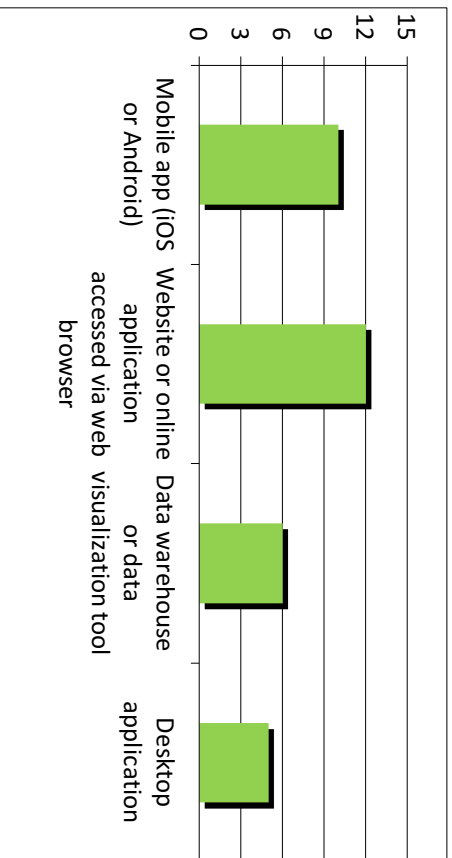


Slightly less than half of the respondents indicated that they would prefer to receive data via an open data program.

ONLINE SURVEY RESULTS

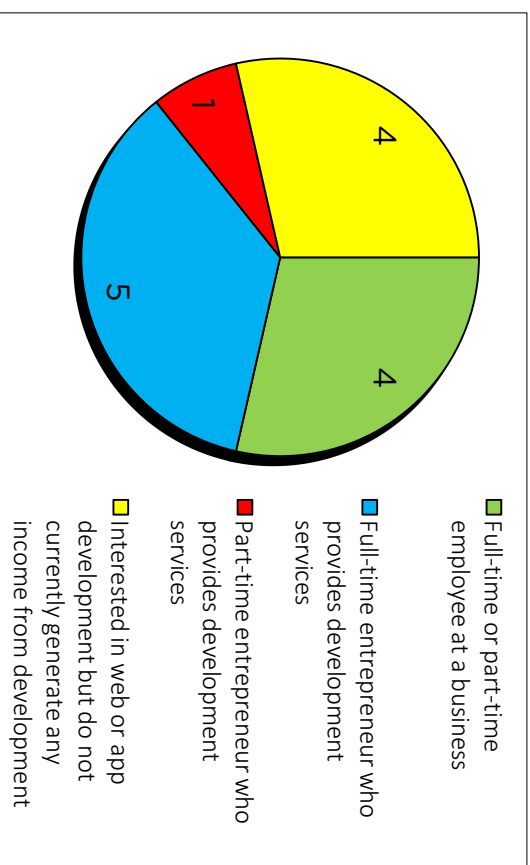
DEVELOPER RESPONDENTS ONLY (14)

Which of the following development platforms would you be most likely to use when consuming open data from the City for your planned application?



Website and mobile were the most common platforms indicated, although each of the four options was supported by at least 5 respondents.

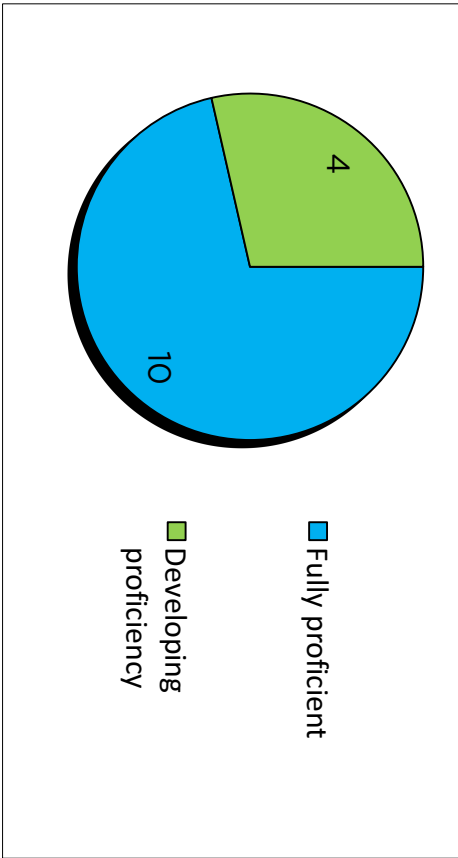
Which of the following best describes your current activity as a developer?



Most of the developer respondents generate income from development on a full-time basis.

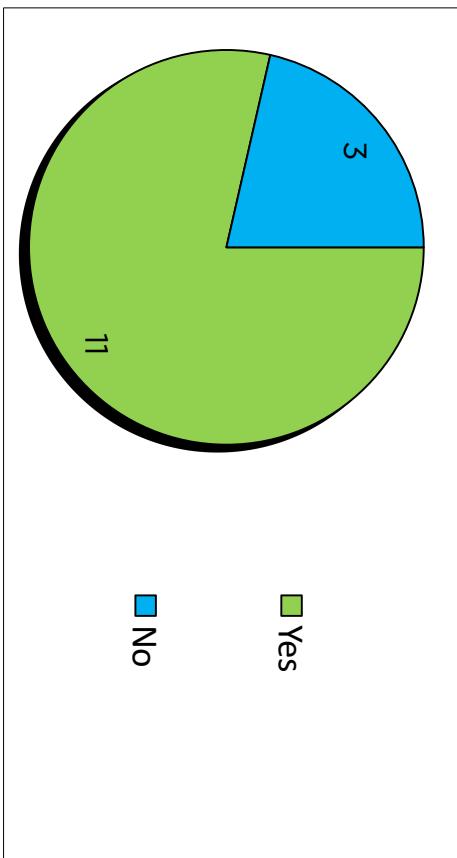
ONLINE SURVEY RESULTS

Indicate your level of expertise in creating data-driven applications.



The majority of developer respondents indicated they were fully proficient.

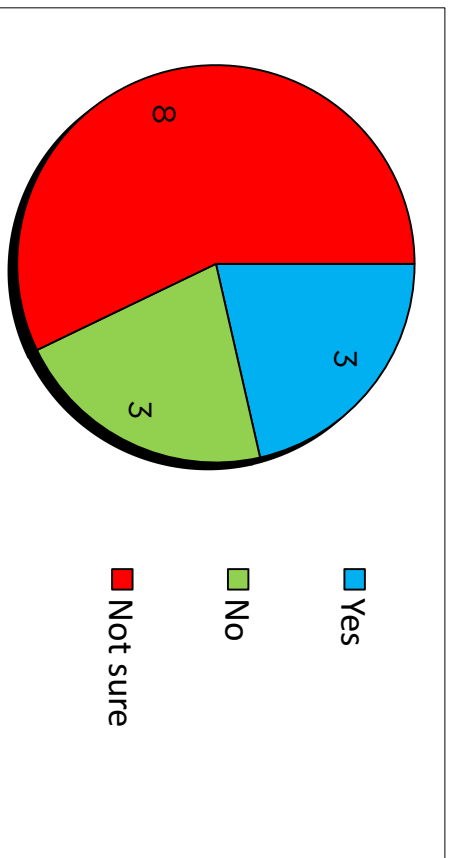
Have you, in the past, created software applications for business or academic use, or released an app to a marketplace such as the iTunes Store or Google Play?



The majority of developers indicated they have developed applications for use in business settings or released to a commercial app marketplace.

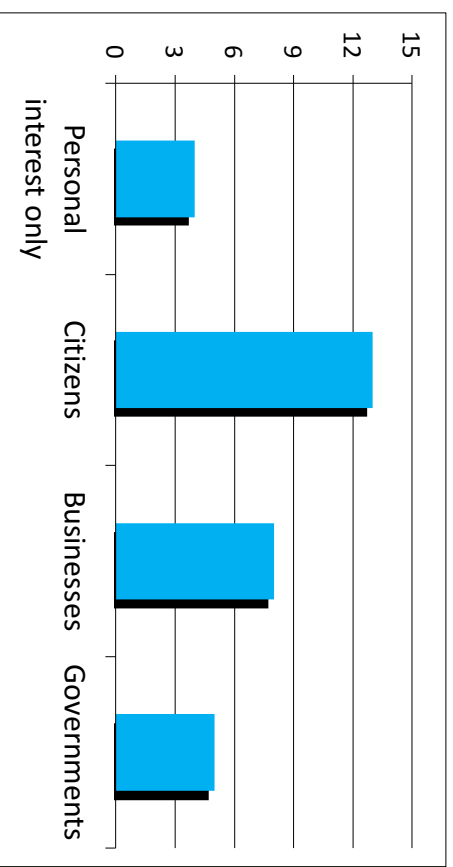
ONLINE SURVEY RESULTS

Would you intend to generate income as a result of creating applications using open data?



Among the developer respondents, there was uncertainty as to whether open data would result in income-generating activities.

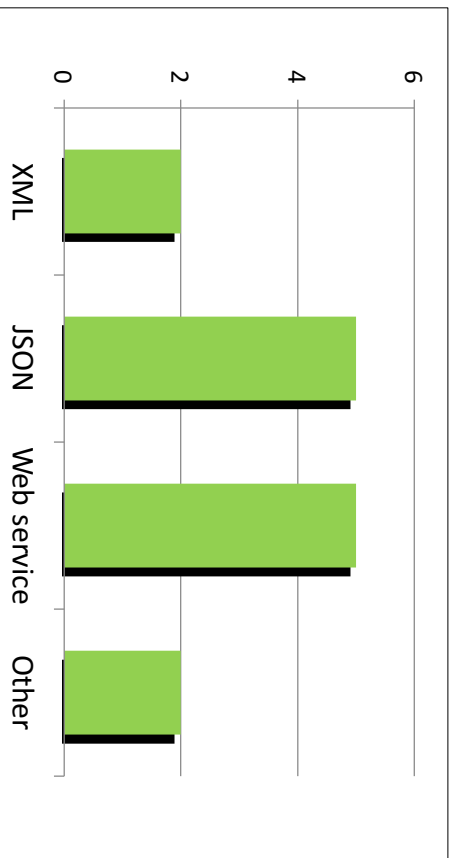
Who would be the primary audience(s) for your applications?



The most common application of open data was for citizen use, according to the developer respondents. Business use was the second most common.

ONLINE SURVEY RESULTS

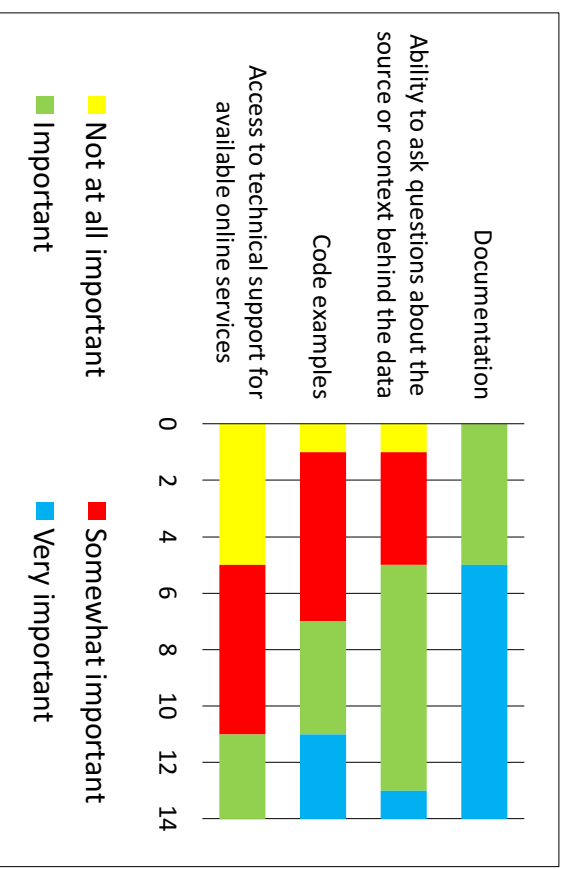
In what format(s) would you prefer to consume data made available by the City?



Among developers, file formats of JSON and XML as well as web services were preferred. **Not a single developer participant indicated a desire to access data using the Adobe Acrobat PDF format.**

The open, tabular CSV format was not indicated as a desired format. Interestingly, CSV is a common format for governments to use when releasing tabular, spreadsheet data. We interpret this finding as indicating that JSON would be preferable to CSV format, specific to the developer audience. The CSV format is likely to have utility for audiences who are consuming it for non-development purposes, so we do not suggest discarding the idea of using CSV entirely for all audiences.

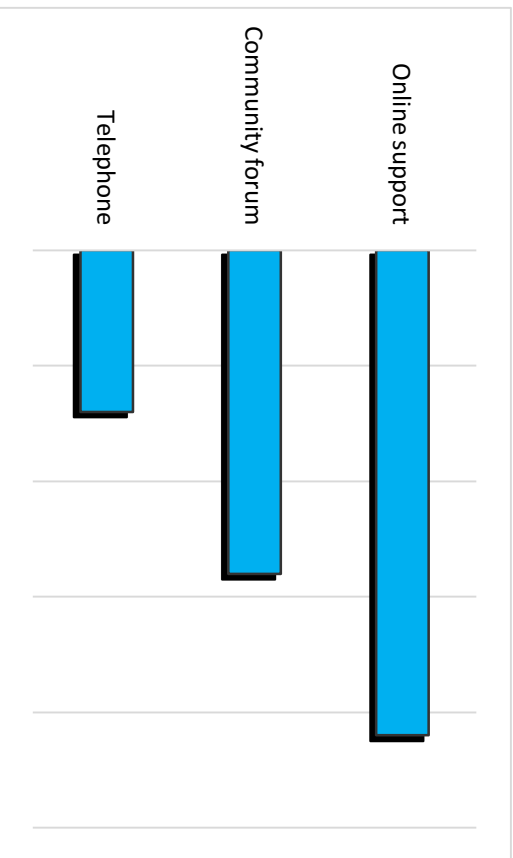
Rate the importance of the following resources for you as a developer.



Documentation was by far the most important option to the developer respondents. Access to technical support was much less preferred to the ability to ask questions about data sources.

ONLINE SURVEY RESULTS

Rank the follow in terms of your preference for how to receive technical support when experienced difficulty using the online services from the City.



Online support was the most preferred channel for receiving support followed by access to a community forum. Telephone support was the least preferred.

Prioritizing online channels for support will ease the resource requirements to some degree as real-time phone support is more resource-intensive versus online or community-based methods of support.

ALL RESPONDENTS (536)

Which of the following data sets would you be interested in having greater access to?

(CHART ON THE FOLLOWING PAGE)

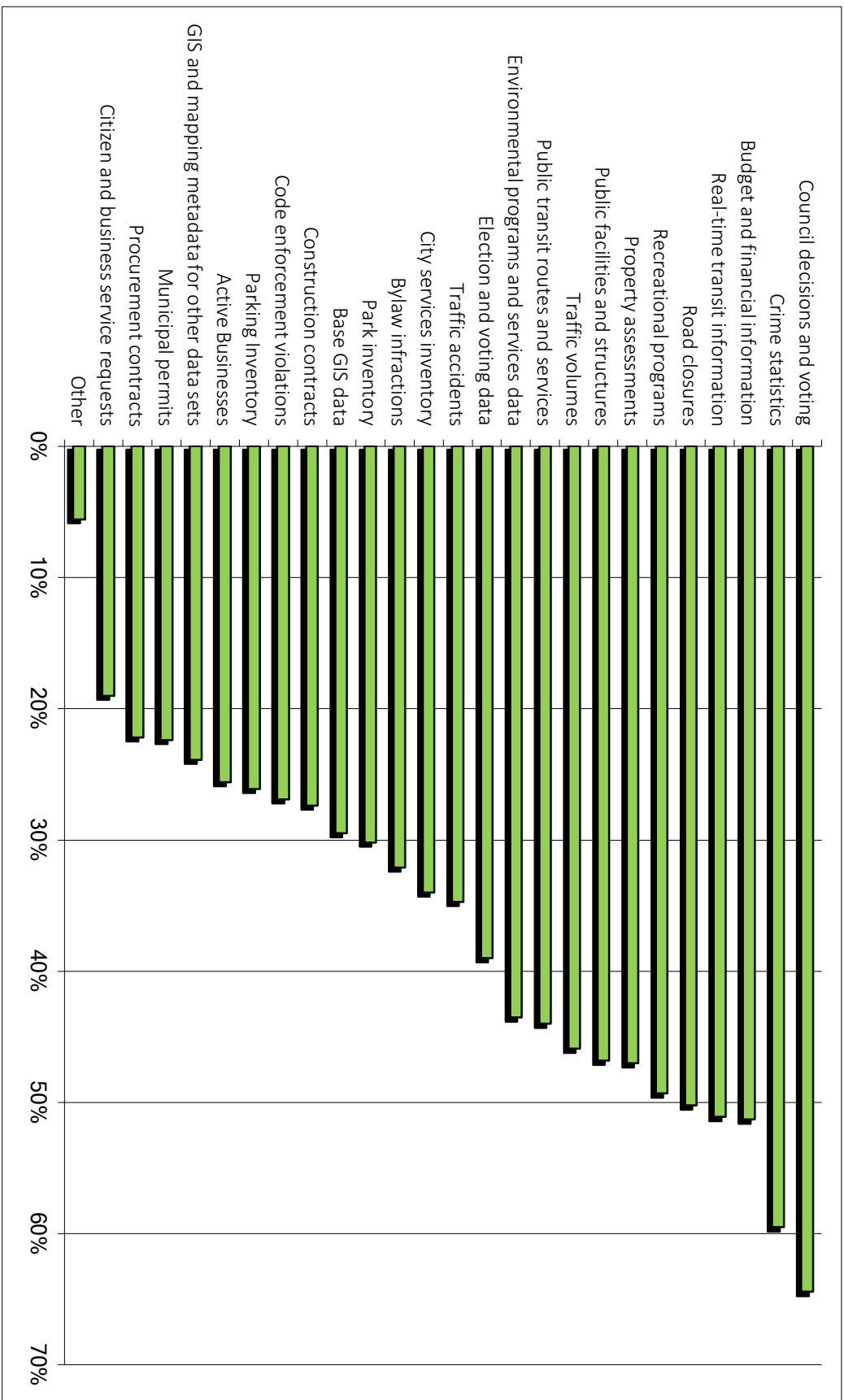
At least half of the respondents showed interest in the top five preferred types of data to access, which were:

- Councils Decision & Voting – 64%
- Crime Statistics – 60%
- Budget & Financials – 51%
- Real-time Transit Info – 51%
- Road Closures – 50%

Nine of the twenty-five types of data sets received interest by less than 30% of the respondents. The five least preferred were:

- Citizen & business service requests – 19%
- Procurement contracts – 22%
- Municipal permits – 22%
- GIS & mapping – 24%
- Active businesses – 26%

ONLINE SURVEY RESULTS



Climate Change Mitigation Business Plan - Opportunities

Recommendation

That the Standing Policy Committee on Environment, Utilities and Corporate Services recommend to City Council:

1. That the information pertaining to Climate Change Mitigation Business Plan be received; and
2. That the allocation of Corporate Performance Department Capital Funding of \$20,000, in addition to \$80,000 of Federation of Canadian Municipalities grant funding, be referred to the 2018 Business Plan and Budget deliberations to support development of the Business Plan.

Topic and Purpose

The purpose of this report is to provide an update on the Climate Change Mitigation Business Plan (Business Plan) project, including a source funding update, description of the Business Plan deliverables and analysis, and a list of mitigation opportunities that will form the basis for engagement with the community.

Report Highlights

1. A mitigation action plan is required to maintain compliance with the Global Covenant of Mayors for Climate and Energy Agreement, which will be delivered through the Climate Change Mitigation Business Plan.
2. Administration has applied to the Federation of Canadian Municipalities (FCM) Municipalities for Climate Innovation Program for funding to support Business Plan development, including community and stakeholder engagement, and communications.
3. Engagement and communications will begin in fall 2017, the results of which will inform the Business Plan.
4. The Business Plan will outline how the City of Saskatoon can facilitate community and corporate emissions reductions in order to meet established greenhouse gas reduction targets. Included in this report is a summary of background information gathered to inform the planning process and a description of the Business Plan development process.

Strategic Goals

The Climate Change Mitigation Business Plan project supports the corporate performance targets of reducing greenhouse gas emissions as a corporation by 40% below 2014 levels by 2023, community emissions by 15% below 2014 levels by 2023, and all emissions by 80% below 2014 levels by 2050. The Business Plan also supports the strategic goal of Environmental Leadership by providing innovative options to reduce emissions, and the goal of Asset and Financial Sustainability by mitigating the effects of the carbon price mechanism that will be implemented in 2018 either by the provincial or federal government.

Background

In November 2015, the City became a signatory to the Compact of Mayors, now known as the Global Covenant of Mayors for Climate and Energy, which commits the City of Saskatoon to address climate change by reducing greenhouse gas emissions. Within three years of becoming a signatory, Saskatoon is required to develop and submit an action plan for demonstrating how the City will deliver on its promise to mitigate emissions. Attachment 1 outlines the phased commitment to the Global Covenant of Mayors with timelines of the completed phases.

City Council, at its meeting held on June 26, 2017, considered the Saskatoon Greenhouse Gas Emissions Targets report; and resolved, in part:

- “1. That the greenhouse gas emissions reduction target for the City of Saskatoon (corporate) be adjusted to utilize 2014 as the base year, specifically, a reduction of 40% below 2014 levels by 2023; and a reduction of 80% below 2014 levels by 2050.
2. That the recommended reduction targets for the community proposed by the Saskatoon Environmental Advisory Committee be adopted.”

Report

Summary of the Climate Change Mitigation Business Plan

One of the Global Covenant of Mayors obligations is to create a mitigation action plan that will enable Saskatoon to meet its greenhouse gas reduction targets; the Climate Change Mitigation Business Plan will act as Saskatoon’s action plan document. As such, it will directly outline how Saskatoon can meet its short and long-term emissions reductions targets and, to maximize the potential for funding support from FCM and the Federal Government, align with federal priorities (as outlined in Attachment 2).

Based on the results of the 2014 Saskatoon Greenhouse Gas Emissions Inventory, opportunities to reduce emissions within each sector will be analyzed on the basis of operational feasibility, implications to the local economy, financial viability (including investment and savings), and the overall effect on emissions. Sectors are based on the Global Protocol for Community-Scale Greenhouse Gas Emission Inventories and include building energy consumption, transportation, waste management, agriculture and land use, and industrial processing.

The intent of the Business Plan is to identify a set of specific actions the City will take to facilitate emissions reductions, along with a long-term roadmap for achieving the targets through changes to policy, investments in projects and programs, milestone achievements that will signal progress, and timelines. The business planning process will integrate findings from public and stakeholder engagement, link emissions reduction initiatives with other City priorities, and begin examining the environmental, social, and financial benefits of mitigation activities.

Developing the Plan

Similar to the approach Administration is taking in the development of the Waste Diversion Plan, the Business Plan will identify opportunities in the form of new programs, policy tools, pilot projects, and education that will lead to positive emissions reduction results. Further, the Business Plan will provide scenario analyses on outcomes, including financial analysis, emissions analysis, operational analysis, and risk assessment. A thorough cost-benefit analysis for the identified set of actions will include a Business-as-Planned scenario to compare the implications of not engaging in mitigation activities in Saskatoon.

A variety of opportunities to reduce greenhouse gas emissions have already been identified by Administration and are listed in Attachment 3. Further study of these opportunities is required to better understand the potential for impact and positive and/or negative implications associated with each opportunity. In the Saskatoon Greenhouse Gas Emissions Targets report a list of environmental, social, and financial benefits were provided. Through the business planning process, attempts to quantify these benefits will be made, along with an identification of any short or long-term 'trade-offs', costs or consequences that may arise from engaging in mitigation activities. Once the opportunities have been analyzed, the Business Plan will provide recommendations for City Council to review and provide direction on. When a suite of options is adopted by City Council, the final phase of the Business Plan includes preparing an implementation plan to enable Saskatoon reach the targets.

Attachment 4 provides a graphic overview of the Business Plan strategy development process.

Public and/or Stakeholder Involvement

Environmental Awareness Survey Results

Climate change remains one of the biggest issues facing Saskatoon and the Globe today. Saskatoon residents and businesses recognize the importance of the climate change issue, as evidenced in the recent Environmental Awareness Survey conducted by the City of Saskatoon in June 2017. Survey results are summarized in Attachment 5.

Engagement Approach

Many of the topics within the Climate Change Mitigation Business Plan will require significant community conversations and engagement. As a result, the Administration is developing an engagement plan to help guide implementation and to ensure interactions with the community are meaningful, consistent, relevant, and effective.

Administration is currently in the process of hiring an internal Engagement Specialist and external Engagement Consultant to help design and facilitate upcoming engagement activities.

Public engagement is expected to start in November 2017. The engagement approach may include activities such as a series of workshops and forums, surveying and on- and offline discussions. This will provide residents and the Industrial Commercial and

Institutional (ICI) sector with opportunities to join in the conversation. Key stakeholders will be invited to provide input into the Business Plan to ensure that the recommendations and opportunities have been thoroughly considered. Key stakeholders may include, but will not be limited to, local community organizations, environmental and economic professionals, Indigenous stakeholders and the business community.

A number of engagement activities are planned for the fall and Administration will provide a report on the engagement approach for the Climate Change Mitigation Business Plan and Waste Diversion Plan to identify how alignment will be addressed with other activities such as Growth Plan-related engagement and Green Infrastructure Strategy and Natural Capital Asset Valuation-related meetings.

Specific to the Climate Change Mitigation Business Plan, the goal of engagement is to help residents and businesses understand local climate change challenges and provide opportunities for input into prioritizing potential solutions. The output from climate change engagement will be a comprehensive report which outlines Saskatoon's climate change mitigation options for City Council's future consideration. Public outreach and education are expected to continue through the design phase of the plan (dependent upon a successful application for grant funding).

Communication Plan

Administration is developing a Communications Strategy that will focus on building public awareness and participation in climate change mitigation. The City will rely on the participation and engagement of Saskatoon residents and businesses to help build and implement a plan for mitigating the impact of climate change. Rather than focus on individual action, the Strategy will focus on communicating collective responsibility, successes, and benefits; showcase collaboration; and highlight community actions and partnerships.

The tone of the campaign will remain upbeat, interesting, and meaningful. The core message will demonstrate that it's time for the community of Saskatoon to take action, and encourage stakeholders to get involved in engagement activities. Details about the Communications Strategy will be provided in the report to Committee outlining the Engagement Approach.

Policy Implications

Policy review and analysis will be a key component of the Business Plan. Research will be conducted on: what current policies or bylaws may be affected by mitigation activities; innovative and best practices utilized by other municipalities; and future policy options that could be considered by the City of Saskatoon. The Business Plan will include a policy analysis section, which outlines the potential role of the City of Saskatoon to facilitate mitigation efforts using policy tools. Initial examples identified by the Administration are included in Attachment 3.

Financial Implications

The Climate Change Mitigation Business Plan will provide a strategy to reduce emissions within the Saskatoon community. The strategy development costs and deliverables eligible for FCM grant funding include:

Deliverables	Estimated Cost
Communications and public awareness, advertising and media	\$ 40,000
Public awareness and creative development	30,000
Creative services to support engagement	10,000
Research into attitudes and motivation of Saskatoon residents	16,500
Engagement plan development and facilitation	85,000
Community outreach and partnerships	10,000
Research, benchmarking, policy review – internal staff resources	30,000
Mapping, scenario analyses, report production	38,500
Total estimated cost eligible for FCM grant funding	\$260,000

Through the business planning process, additional financial implications will be identified for the implementation of recommended opportunities.

Administration has applied to the Federation of Canadian Municipalities (FCM) Municipalities for Climate Innovation Program for funding support. FCM funding covers 80% of eligible costs of an approved capital project. Administration committed \$32,000 in 2017 from to leverage for applying to FCM for funding of \$128,000. An additional \$20,000 the Corporate Performance Department Reserve is required to secure an additional \$80,000 of FCM funding for a full budget of \$260,000.

Early feedback from FCM has been encouraging, however if the application to FCM for funding is not successful, Administration will report back with an alternative strategy for completing the Business Plan.

Environmental Implications

The Business Plan will directly outline how Saskatoon can meet its short- and long-term emissions reductions targets, which will require:

- Reducing emissions generated by the City of Saskatoon (corporate) by 42,500 tonnes of carbon dioxide equivalents by 2023, plus additional mitigation to offset new greenhouse gases generated by expanded operations;
- Reducing community emissions by 580,000 tonnes by 2023, plus additional mitigation to offset new greenhouse gases generated by growth; and
- Reducing overall emissions in Saskatoon from 3.85 million tonnes to 770,000 tonnes by 2050.

Additional environmental implications will also be estimated and reported through the planning process.

Privacy Implications

Engagement with stakeholders within the community and large emissions producers will be addressed on a case-by-case basis. For example, where it may become possible to identify large emitters or energy consumers, the presentation of information will be adjusted to protect the confidentiality of the business or institution.

Other Considerations/Implications

There are no options, CPTED implications or considerations.

Due Date for Follow-up and/or Project Completion

To fulfill the next steps under the Global Covenant of Mayors for Climate and Energy, Administration is required to deliver the Climate Change Mitigation Business Plan no later than December, 2018. To meet this obligation, Administration is planning on delivering the following:

- Recommended Mitigation Actions report – March, 2018
- Preliminary Climate Change Mitigation Business Plan – June, 2018
- Final Business Plan – November, 2018

Public Notice

Public Notice, pursuant to Section 3 of Public Notice Policy No. C01-021, is not required.

Attachments

1. Global Covenant of Mayors Commitments
2. Aligning the Saskatoon Climate Change Mitigation Business Plan with Federal Priorities
3. Mitigation Opportunities to be Explored in the Business Plan
4. Saskatoon Climate Change Mitigation Business Plan - Strategy Development Process
5. 2017 Environmental Awareness Survey Results

Report Approval

Written by: Nasha Spence, Environmental Accounting Manager
 Shannon Dyck, Environmental Coordinator
 Katie Burns, Environmental Coordinator

Reviewed by: Brenda Wallace, Director of Environmental and Corporate Initiatives

Approved by: Jeff Jorgenson, Acting General Manager, Corporate Performance Department

Global Covenant of Mayors Commitments



At each phase, the City is required to report the results to the Covenant of Mayors on Climate and Energy through an approved method in order to receive acknowledgement and verification of the phase. Once the Compliance phase has been reached, the City is required to report their inventories, targets, updates, and reductions on an annual basis in order to maintain the Compliance rating.

The Global Covenant of Mayors commitment addresses two streams at each phase: Climate Change Mitigation and Climate Change Adaptation. The requirements of each phase are summarized below. A report on Climate Change Adaptation will proceed in the fall of 2017.

Phase	Climate Mitigation	Climate Adaptation
1 – Commitment <ul style="list-style-type: none"> • Due: November 2015 • Status: Met 	Cities commit to: <ul style="list-style-type: none"> • Reduce local greenhouse gas emissions • Measure community emissions using globally-recognized standards • Set targets for the future based on inventory data • Develop climate action plan 	Cities commit to: <ul style="list-style-type: none"> • Address impacts of climate change • Identify climate hazards • Assess vulnerabilities • Develop climate adaptation plan
2 – Inventory <ul style="list-style-type: none"> • Due: December 2016 • Status: Met 	Complete a community-wide emissions inventory using the Global Protocol for Community-Scale Greenhouse Gas Emission Inventories standard	Identify current and projected climate hazards specific to the region
3 – Target <ul style="list-style-type: none"> • Due: December 2017 • Status: Mitigation – Met Adaptation – In Progress 	Continue to update emissions inventory data and set emissions reduction targets	Assess climate change vulnerability of infrastructure, services and municipal plans
4 – Plan <ul style="list-style-type: none"> • Due: December 2018 • Status: In Progress 	Develop a Climate Action Plan demonstrating how the City will deliver on its	Develop a climate change adaptation plan demonstrating how the city

	commitment to reduce greenhouse gas emissions	will adjust to actual or expected climate change impacts to achieve resilience
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Aligning the Saskatoon Climate Change Mitigation Business Plan with Federal Priorities

The Government of Canada has established plans for sustainable development and climate change.¹ Administration will continue to monitor federal implementation to understand the impacts and opportunities for the City of Saskatoon's Climate Change Mitigation Business Plan, including federal plans to:

- Advance the use of carbon pricing to provide a market signal that encourages lower-emitting behaviors, products, and technologies:
 - All Canadian jurisdictions will have carbon pricing in place by 2018. A “backstop” pricing system has been provided for provinces and territories that do not meet the benchmark in 2018.
- Work with Canadians, provinces and territories, Indigenous Peoples, and municipalities to develop local and regional plans.
- Help Canadians shift to cleaner fuel sources.
- Increase Canada's low- or zero-emissions electricity supply:
 - Modernize the electricity systems through smart-grid technologies to expand, store, and make better use of renewables.
- Increase vehicle efficiency and move towards lower-emitting modes of transportation:
 - Set emission standards;
 - Put more zero-emission vehicles on the road
 - Invest in public-transit upgrades and expansions; and
 - Develop a clean fuel standard to reduce emissions from fuels used in transportation, buildings and industry.
- Accelerate the adoption of transformative technologies and energy efficiency:
 - Support early-stage technology development;
 - Focus research on clean technology and environmental performance issues; and
 - Increase support to advance and commercialize innovative technologies.
- Make buildings and equipment more efficient:
 - Work to develop a “net-zero energy ready” model building code by 2030;
 - Develop a model code for existing buildings by 2022 to guide energy efficiency improvements when renovating buildings; and
 - Set new standards for heating equipment and other key technologies to the highest level of efficiency that is economically and technically achievable.
- Enhance sinks and address emissions from forests, agriculture and waste:
 - Increase stored carbon;

¹ *Achieving a Sustainable Future: A Federal Sustainable Development Strategy for Canada, 2016-2019* (including the *Spring 2017 Update*)

<https://www.canada.ca/content/dam/themes/environment/documents/weather1/20170119-en.pdf>

Pan-Canadian Framework on Clean Growth and Climate Change: Canada's Plan to Address Climate Change and Grow the Economy

- Increase the use of wood for construction;
- Generate bioenergy and bio products; and
- Advance innovation.
- Create a low-carbon industrial sector:
 - Reduce methane and hydrofluorocarbon (HFC) emissions;
 - Improve industrial energy efficiency; and
 - Invest in technology.
- Lead by example through green and innovative government operations:
 - Be an early adopter of building standards to be established through the Pan-Canadian Framework on Clean Growth and Climate Change for all new government buildings and leases, where applicable;
 - Establish a complete and public inventory of federal GHG emissions and energy use;
 - Encourage departments to take action and innovate on sustainable workplace practices;
 - Review procurement practices to align with green objectives; and
 - Promote sustainable practices for employee travel—including business travel and commuting to work—such as teleconferencing, telecommuting, carpooling, and use of electric vehicles and public transportation. Where feasible, offer offsetting options to reduce the impact of government travel.
- Support businesses and Canadians to take action to reduce GHG emissions:
 - Provide energy efficiency programs and information;
 - Promote sustainable consumption and production;
 - Promote the use of lower-carbon-footprint materials in construction; and
 - Address GHG emissions from the rail sector.
- Conduct policy research and analysis to inform strategies to address climate change in different sectors, including agriculture, energy and health.
- Commit funds towards working and partnering with others to reduce GHG emissions. For example, the 2016 Federal Budget provided:
 - \$2 billion over two years to establish a Low Carbon Economy Fund to support provincial and territorial actions that will significantly reduce GHG emissions;
 - \$75 million in new funding for local governments to address climate change; and
 - \$109.1 million over five years to advance domestic climate change objectives through science, data reporting, policy and regulations.

Mitigation Opportunities to be Explored in the Business Plan

Outlined below are a number of greenhouse gas reduction opportunities that will be refined and examined in more detail in the Business Plan. Additional opportunities may be identified as engagement is conducted with City Divisions, residents, the Industrial, Commercial and Institutional (ICI) sector, and key stakeholders in our community.

This list represents program, policy, pilot and educational initiatives that have been implemented in other jurisdictions, as well as initiatives that are currently being explored by the City of Saskatoon. Further details will be provided in the Business Plan in order to support City Council's decision making process on the specific initiatives the City will implement. In particular, the Business Plan will identify which opportunities provide:

- significant impact on emissions;
- cost-effectiveness;
- operational efficiency;
- response to community 'readiness';
- maximize benefits; and
- minimize 'trade-offs' or other negative implications.

The Business Plan will directly outline how Saskatoon can meet its short- and long-term emissions reductions targets through a variety of initiatives, which will require:

- Reducing emissions generated by the City of Saskatoon (corporate) by 42,500 tonnes of carbon dioxide equivalents by 2023, plus additional mitigation to offset new greenhouse gases generated by expanded operations;
- Reducing community emissions by 580,000 tonnes by 2023, plus additional mitigation to offset new greenhouse gases generated by growth; and
- Reducing overall emissions in Saskatoon from 3.85 million tonnes to 770,000 tonnes by 2050.

Programs

Programs have the potential to encourage the community to reduce emissions by providing information, service convenience, or incentives. The range of emissions impact varies, with a variety of factors affecting the outcome. For example, approximately 530 tonnes of greenhouse gases can be removed from the residential building sector annually if 15% of homes add a small-scale solar panel system to their rooftops. Adopting a city-wide organics program that diverts 78,000 tonnes of food and yard waste from landfills is estimated to reduce between 85,000 and 120,600 tonnes annually.

Current & In-Progress Initiatives:

- Continue to offer the Net Metering Program to Saskatoon Light and Power Customers*¹

¹ An asterisks (*) indicates that the initiative responds to a Saskatchewan Environmental Society recommendation from report CK 375-4 and CP 7540-001 (SPC Environment, Utilities and Corporate Services. January 11, 2016). City of Saskatoon, Corporate Performance Department, Environmental and Corporate Initiatives Division
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- Expand the usage of City compost in public parks and new developments
- Storm Water Utility credits for ICI customers
 - Owners are credited for the equivalent amount of runoff that would be diverted during a storm event, due to the improvement.
- Rain barrel and compost bin rebates
 - The City offers \$20 rebates to Saskatoon residents who purchase a rain barrel or compost bin from a Saskatoon retailer. Each household is eligible for one rebate per item per year.
- Environmental cash grant
 - The City of Saskatoon annually allocates \$20,000 to local non-profit organizations implementing initiatives that relate to the protection of the environment; conservation of natural resources; protection of our water resources; and/or environmental communications, education or research.

Future Opportunities:

- Support solar opportunities*
 - Assistance for solar panels, passive solar design, and solar-ready buildings. Benefits include reductions in heating and cooling loads, water heating, and electricity use, as well as renewable energy generation.
- Encourage ultra-low and zero-emission vehicles*
- Encourage electric vehicle charge stations for residents and businesses
- Carpooling and car sharing programs
- Third-party building certification processes
 - Support local industry to certify local projects through third-party certification programs (e.g. LEED, Passive House, BOMA, Living Building Challenge, SITES).
- Incentivize innovative buildings and new forms of development
- Incentivize energy efficiency measures in residential buildings and ICI facilities
- Provide ICI sector audits and retrofit incentives for energy and water improvements
- Provide residential audits and retrofit incentives for energy and water improvements
- Incentivize indoor water efficient fixtures
- Incentivize outdoor water conservation methods
- Encourage ground source heat pumps (geothermal) and air source heat pumps in buildings
- Encourage replacement of once-through cooling equipment
- Improve storm water incentives for residential and ICI customers
 - A larger storm water credit can drive storm water improvements and there are also opportunities to provide tax reductions for residential customers.
- Expand waste diversion initiatives
 - Phase out the subscription Green Cart program and implement a more efficient city-wide organics program
 - Continue to offer city-wide residential recycling
 - Expand public space recycling

- Continue to operate the compost depots
- Expand household hazardous waste management
- Continue to plan the Curbside Swap program
- Continue to support the Home Composting program
- Construct Recovery Park
- Increase the value of the Vacant Lot & Adaptive Re-Use Incentive to stimulate low-impact, dense development
- Provide additional support for community projects through the City of Saskatoon's environmental cash grant

Policy Tools

Policy tools influence emissions by encouraging investment in carbon-friendly solutions (e.g. products, services, approaches) and setting standards and guidelines necessary to achieve emissions reductions goals. For example, an anti-idling bylaw has the potential to reduce emissions by 52,500 tonnes of carbon dioxide equivalents.

In addition to the full evaluation of each policy opportunity, further analysis of policy tools will be done to identify the legal implications and authority of the City in the context of Federal and Provincial Acts and Regulations.

Current & In-Progress Initiatives:

- Recognizing that 'you manage what you measure', consistently tracking emissions for the community and corporation
 - Produce annual GHG inventories in order to monitor emissions reduction progress.
 - Update the community on milestones achieved on reaching the reduction targets.
 - Develop energy intensity maps identifying where energy consumption is highest in the community.
- Complete the development of a Sustainable Building Policy for the City of Saskatoon
- Develop a Community-Wide Solar Strategy
 - A Solar Opportunities discussion paper is currently being prepared, which will include input from stakeholders from the renewable energy generation sector, in particular, the solar industry.
- Brownfield Renewal Strategy
 - Emissions reductions are possible from both the management of contaminated soils and the facilitation of low-impact, dense development.
- Adopt the North Downtown Masterplan, a sustainable infill neighbourhood design
- Incorporate more specific environmental and climate change provisions into the Official Community Plan
- Incorporate more specific environmental and climate change provisions into the City's Environmental Policy (C02-036)
- Design Sustainable Procurement Guidelines to correspond with the Corporate Purchasing Policy (A02-027)

- The City of Saskatoon is developing new procurement policies, procedures and tools that will include a full range of sustainable purchasing activities and reflect best practices in Canada. Beginning with a new Supplier Code of Conduct and Supplier Leadership Questionnaire, the new policy will apply broadly across the corporation using tools such as Total Cost of Ownership and eco-labelled product specifications.
- Actively enforce the Civic Vehicles Policy (A07-020)
 - This policy includes a section that restricts civic vehicle and equipment idling after more than three consecutive minutes, between -5 and 27 degrees Celsius (°C).
- Create stronger development guidelines to correspond with the Wetland Policy (C09-041)
 - This policy provides guidance to landowners, developers and municipal staff on achieving responsible integration of wetlands into the urban environment.
- Continue to create new land use planning policies through the Growth Plan to decrease reliance on automobiles and maximize efficiency of public services
 - Adopt and implement development patterns that utilize existing infrastructure, enhance non-automobile transportation, and reduce the need for new roads, utilities, and other public works.
- Continue to create improvements to transit under the Growth Plan
 - Improvements could include more bus frequency, lower bus fares, better snow maintenance around bus shelters, a system that gets people to their destination more efficiently, new development standards that support the transit system and infrastructure, programs to increase safety and accessibility, expanded bus rapid transit (and/or light rail) systems, higher transit ridership targets*, and earlier bus rapid transit targets*.
- Implement traffic and roadway management strategies to improve mobility and efficiency, and reduce associated emissions
- Prioritize active transportation infrastructure and implementation of the Active Transportation Plan
 - Set higher targets for active transportation*, develop comprehensive bicycle and pedestrian networks, preserve neighbourhood characteristics that encourage active forms of transportation, and create educational programs to improve attitudes and perceptions towards active transportation (i.e. regarding sense of safety, convenience, road rules).
- Work with Regional Partners to identify environmental partnership opportunities
 - Develop integrated plans in the areas of transportation, green infrastructure, climate mitigation and adaptation, building and construction, amongst others.
- Study the environmental benefits that could result from the Employment Areas Study
 - The relationship between where people live and work can have significant impacts on land use and transportation patterns, including the number of automobile, pedestrian, cycling, and transit trips. This study includes a number of policy recommendations centered on achieving employment

areas that are well-designed, located closer to where people live, accessible by all transportation modes, and maintain a strong City Centre.

- Ensure the environmental recommendations identified in all current and future Local Area Plans (LAPs) are resourced and implemented
- Expand Community, Allotment, Vacant Lot, and Boulevard Gardening opportunities
- Continue to Develop the Green Infrastructure Strategy
 - The project will identify where natural ('green') infrastructure could be used as a replacement for built ('grey') infrastructure, resulting in emissions reductions. It also identifies where carbon sequestration potential exists and can be fostered.
- Promote the City's Low Impact Development (LID) Guidelines
- Continue to support the efforts of the Meewasin Valley Authority
 - Meewasin helps protect our watershed through conservation management, recreation, and education.
- Require quality control programs and environmental standards for contractors working on civic initiatives
- Continue to review the effectiveness of civic utility conservation pricing mechanisms
 - Change the City's business model for utilities to ensure conservation is supported. Avoid block rates.

Future Opportunities:

- Civic Plan Alignment
 - Ensure that the City of Saskatoon's climate, land use, housing, transportation, and other plans are aligned so that environmental and climate change objectives are met in an integrated way.
 - Enhance any regional plans that have been developed and work with regional partners to encourage consistency between jurisdictions and support emissions reporting and planning.
- Establish building energy efficiency policies for new construction*
 - Policies/codes could include mandatory performance measures, incentives for green building practices (e.g. in the form of training, technical assistance, guidelines, financial support, and expedited permit processing), and the removal of barriers that impede the construction of green buildings.
 - The City should anticipate the federal step code of net-zero energy buildings by 2030.
- Establish energy efficiency policies for existing buildings
- Require deconstruction and material-reuse from municipal, residential and ICI buildings
- Develop Community Energy Plans (CEPs)
 - Create CEPs for new growth areas and regional centres to detail energy use requirements, establish a plan to reduce energy demand, consider alternative forms of energy generation, and improve building efficiencies and siting.

- Utilize financial policy tools for green innovations and improvements
 - Reduce financial barriers to green improvements using, for example, Property Assessed Clean Energy (PACE) financing, grants, rebates, property tax abatements, utility incentives, subsidized loans, cost-sharing programs, capital investment offsets, and incremental payments on property taxes.
- Make improvements to the Zoning Bylaw to support sustainable development
 - Make amendments that advance green improvements, sustainable buildings, and renewable energy within the city by removing regulatory barriers and clarifying existing language that is currently ambiguous.
- Fast track green improvements and green buildings through the City's permitting process
- Waive building permit fees for green buildings and improvements
 - Waive fees for green construction, including energy-efficient buildings and retrofits, solar panel installations, greenhouses, and green roofs.
- Waive Offsite Levies for green buildings and infill
- Allow floor space exclusions from property taxes for exterior wall thickness
 - Currently, adding greater levels of insulation to buildings leads to higher property taxes (because property taxes are linked with a property's square footage and greater levels of insulation increase wall thickness). Providing wall thickness exemptions would remove the disincentive to improve building envelopes and building energy performance by adding insulation.
- Set higher densification and Infill Targets
 - Maximize land use efficiency by incentivizing infill, mixed-use, and higher density development.
- Develop Urban Design Guidelines to reduce heat island effect
 - Reduce heat gain from pavement and other hardscaping by shading streets and buildings, using paving and roofing materials with a high Solar Reflective Index, using covered parking, creating cool roofs and green roofs, utilizing permeable pavement, and installing natural/green infrastructure and landscaping.
- Create design standards for new neighbourhoods and guidelines for infill development in existing neighbourhoods to utilize solar energy*
- Develop a Solar-Ready Building Policy*
 - Require new construction to be designed and wired for future potential installation of solar photovoltaic systems.
- Create a Feed-In-Tariff Program*
 - A feed-in-tariff policy allows customers who install renewable power (i.e. solar) to receive a price for the electricity they produce that reflects actual installation costs plus a modest profit.
- Establish a Renewable Energy Target to reduce reliance on carbon intense power from the Provincial grid
- Offer a tax exemption for green power facilities
 - Provide property tax exemptions for green power facilities that are developed on vacant land.
- Develop Alternative Energy Siting Policies

- Establish policies and programs that facilitate the siting of new renewable energy generation, such as site designation, removal of barriers, and zoning flexibility.
- Create a Green Energy Policy
 - Require renewable energy generation and co-generation projects in new developments and re-developments (where feasible and appropriate). This could include on-site renewable energy generation, co-generation projects, and green utilities.
- Implement Green Energy Procurement measures
 - Implement measures to support the purchase and use of renewable energy, including green electricity purchasing.
- Incorporate environmental metrics into the City's Business Licensing requirements
- Create restrictions to discourage the unnecessary use of electricity for outdoor lighting purposes
 - Bylaw to regulate illuminated signs*
 - Guidelines for compliance with principles of Dark Sky
- Adopt Idle-Free Bylaw*
- Develop industrial standards for space heating and electrical efficiency*
- Require scheduled energy efficiency improvements for industrial facilities*
- Expand naturalized parks
 - Naturalized parks sequester carbon, provide habitat, and have lower mowing, watering, fertilizer, and pesticide requirements than conventional parks.
 - Naturalized parks also act as 'green' infrastructure alternatives to 'grey' infrastructure networks, and can reduce emissions from avoiding the construction of built infrastructure.
- Expand Saskatoon's urban forest
 - The urban forest reduces heat island effect, provides shading, and sequesters carbon.
- Set Biodiversity and Green Space Targets
- Develop Sustainable Landscaping Policies and Guidelines
 - Create policies for municipal, residential, and ICI sectors that ensure landscaping is optimized for current and future climate scenarios, as well as provide climate benefits such as sequestration, shading, and water efficiency.
- Design a Green Roof Policy
- Develop a City of Saskatoon Food System Strategy that identifies the climate mitigation, climate adaptation, and co-benefit potential of municipally-supported food initiatives
- Create a Paperless Office Strategy for the City of Saskatoon
- Prohibit the use of personal electric heaters in civic buildings
- Develop a Green Fleet Policy
 - A green fleet policy would consider capital and maintenance costs, resale costs, fuels costs, and lifecycle emissions.

- Create Civic Employee Commuting and Travel Policies
 - Implement measures to reduce employee vehicle trips, including bicycle transportation facilities and support, discounted transit passes, municipal parking management, carbon offsetting, and transit/shuttle access between municipal facilities.
- Develop parking policies that reduce traffic
 - Increase parking rates for private vehicle use, develop strategies to ensure new and existing parking spaces are used efficiently, and provide reduced parking fees to green vehicles, carpoolers, and car-shares.
- Reduce parking requirements for developments if viable alternative transportation options are provided
 - Encourage new developments to provide car-sharing, transit incentives, and cycling facilities in lieu of parking.
- Conduct an Integrated Transportation Study
 - Examine the interaction between parking, active transportation, and public transport networks, policies, and infrastructure to find solutions that reduce automobile usage.
- Set Community and Corporate Water Conservation Targets
- Develop Corporate and Community Water Conservation Strategies
 - Identify water conservation and water recycling opportunities, including policies, programs and outreach.
- Research opportunities to incorporate “circular economy” policies into the City’s procurement processes and services
- Create a Civic Energy Efficiency Plan
 - Outline efficiency requirements for new and existing facilities, including training and support for staff.
- Develop a corporate-wide Environmental Management System (EMS)

Projects and Pilots

Projects, whether investments in infrastructure or pilot initiatives that lead to ongoing programs, have the potential to significantly reduce emissions through a phased implementation approach. Pilots are often used to assess financial viability, develop an understanding of the operational requirements of new programs, and evaluate emissions reductions potential. For example, the Weir Power Project is estimated to potentially reduce emissions by more than 21,000 tonnes.

Current & In-Progress Initiatives:

- LED street lighting for all neighbourhoods*
 - New areas in Saskatoon already install LED street lighting. Plans for actively converting existing neighbourhoods to LED lighting are still being developed.
- Implement the Weir Hydro Power Project
- Continue exploring efficiencies in Saskatoon’s Water System
 - Develop a water demand management strategy to address water losses in the distribution system, detect leaks, use metering and sub metering to

improve efficiency, implement energy management software, create performance/procurement standards for buildings and equipment, optimize use of available digester gas, utilize control systems to optimize pumping, and conduct energy audits of the water and wastewater treatment processes.

- Implement the Combined Heat and Power (CHP) System at St Paul's Hospital
- Continue to find alternative uses for existing buildings (e.g. Mendel Building Reuse as a Children's Discovery Museum) to avoid the emissions associated with building demolition
- Expand Landfill Gas Facility
 - The system collects methane gas from the landfill, improves air quality and reduces odours at the landfill. Expansion options are currently being explored.
- Continue to Operate the Solar Panels at the Landfill Gas Facility
 - The Saskatoon Solar Power Demonstration Site is a collaboration between Saskatoon Light & Power, the Saskatchewan Environmental Society Solar Co-operative, and Saskatchewan Polytechnic.
- Energy Performance Contracting
 - The City of Saskatoon is making green improvements in approx. 20 civic facilities. Energy Performance Contracting is a unique form of procurement, whereby an Energy Services Company performs energy and water audits, retrofits civic buildings, and guarantees savings. The loan for the capital costs is repaid from avoided utility expenditures, which are measured, verified and guaranteed.
- Continue to operate existing Combined Heat and Power (CHP) Units
 - The City of Saskatoon installed natural gas CHP units at two swimming pools in 2014 to provide supplemental heating of pool water, space heating, and domestic hot water. The City has also operated two CHP units at its Landfill Gas Collection & Power Generation facility since 2014.
- Continue to trial waste compaction systems for public waste and recycling receptacles (e.g. in parks)

Future Opportunities:

- Design and develop a model low carbon neighbourhood*
 - Develop a neighbourhood similar to Vauban (Freiburg, Germany) or West 5 (London, Ontario) that includes renewable energy generation, public and active transportation networks, mixed-use zoning, urban agriculture, green buildings, district energy, and green space. It could also provide a sufficient economy of scale for infrastructure investments and opportunities for integrated planning.
- Create a "Smart City" pilot on a neighbourhood level
 - Include the integration of a smart grid, smart metres, battery storage (including electric vehicles), and smart transport networks.
- Pilot a District Energy neighbourhood

- Develop a District Energy system in a specific pilot neighbourhood that provides energy for space heating and hot water to a variety of building types (i.e. multi-family residences, commercial, institutional and industrial).
- Explore opportunities to generate power using wind*
 - Work with SaskPower to build a wind generation station outside Saskatoon's city limits (within 50 km).
 - Research micro-wind opportunities that could be applied in Saskatoon
- Develop energy storage systems for renewable energy
- Use native prairie species along roadways and right-of-ways
- Create commuting-efficient lanes for specific locations and times of day
- Develop 'no-car zones' in key areas of the city (i.e. Business Improvement Districts)
- Pilot the use of bike trailers for Parks Maintenance Crews
- Transition civic equipment and vehicles to electric
- Install waterless urinal equipment in civic facilities
- Expand Automated Irrigation Management System to ensure all new and existing public parks include moisture-sensors and timers
- Explore alternative fuel and/or electric fleet options for Transit
- Construct satellite buildings for Parks operations to reduce vehicle/equipment travel
- Provide more field offices for development initiatives to reduce vehicle/equipment travel
- Develop a Route Optimization Strategy for all civic equipment and vehicles
 - Design efficient transportation routes for municipal services to reduce fuel usage, mileage, and maintenance needs.
- Reduce "phantom" energy loads in civic buildings through education and smart plugs
- Pilot a corporate telework / flex-work program for civic staff to reduce travel
- Design Recovery Park to meet Third-Party Certification (e.g. Living Building Challenge, SITES, or LEED)

Education

Education, training and outreach activities have the potential to reduce emissions by enabling residents of all ages to understand the affect their actions have on the climate and environment, build capacity for action, and encourage more informed decision-making. For example, the Student Action for a Sustainable Future program currently partners with students from 12 schools each year to undertake environmental action projects. Each year, the program reduces emissions by approx. 28 tonnes.

Current & In-Progress Initiatives:

- Expand public education campaign on climate change*
 - A public communications campaign will begin in fall 2017, with the hopes of continuation and expansion in the future.
- Continue to offer recycling education

- The Rolling Education Unit engages residents of all ages using fun and interactive waste activities. It is free and bookable for festivals, events, and community groups. It builds awareness, generates enthusiasm, and ensures that residents receive the information they need to effectively manage their household waste.
- The City of Saskatoon works with the Open Door Society to facilitate recycling workshops and educational opportunities for New Canadians.
- Continue the Saskatoon Light & Power (SL&P) Energy Education Programs
 - SL&P's In-Home Display Program allows customers to borrow an electricity monitor for a one-month period to learn when and how much electricity they use.
 - SL&P offers 20-30 school tours annually that align with Saskatchewan's science curriculum. Students learn how our electricity system can be safe, smart, and sustainable.
- Continue to offer the Student Action for a Sustainable Future (SASF) program
 - The SASF program engages teachers and students in learning, action, and inquiry in areas of energy, waste, water, food, biodiversity, and transportation. Projects lead to measureable greenhouse gas reductions, as well as other sustainability benefits in students' classrooms, schools, households, and the community.
- Continue to offer the Healthy Yards Program
 - The Healthy Yards partnership offers information and hands-on education on sustainable gardening practices for the prairies. It focuses on water conservation, home composting, pesticide reduction, biodiversity, local food, and storm water.

Future Opportunities:

- Conduct How-To (and Why-To) Workshops for residents and businesses
 - Organize events and workshops to promote GHG-reducing activities.
- Develop recognition programs
 - Sponsor awards, recognition events, and friendly competitions to encourage GHG reductions and recognize success.
- Provide training for civic staff and industry on Net Zero Energy Buildings*
 - Sponsor training as soon as possible for architects, home builders, carpenters, electricians, plumbers and other relevant building trades to learn about energy-efficient construction techniques and design.
- Provide training for civic staff and industry on Third-Party Standards being used in Canada
 - Build capacity in the areas of, for example, LEED, Passive House, Net-Zero, BOMA, Living Building Challenge, and SITES.
- Develop a Home Owner and Home Builder Education Program
- Create an educational program that corresponds with the Advanced Metering Infrastructure (AMI) for electricity and water
 - Smart meters are electronic meters that measure and record actual power and water usage by time intervals throughout the day. That data will be used to quickly and easily communicate with customers about their energy

and water use, encourage conservation, and detect leaks and other high-usage variances. Most of the meters have now been installed and options to deliver an online customer platform are being explored.

- Provide civic equipment and vehicle operators with "Smart Driver" training
 - Training will inform drivers of how to optimize the flow of people and goods around the city, reduce idling, ensure proper maintenance, and reduce mileage.
- Develop mandatory environmental awareness training for civic staff
- Develop mandatory environmental awareness training for contractors working on civic initiatives
- Provide training for civic staff and industry on carbon pricing implications
- Provide training for civic staff and industry on grey water recycling
- Develop and implement a civic Green Teams program for City staff

2017 Environmental Awareness Survey Results

Environmental and Corporate Initiatives hired Environics to deliver an Environmental Awareness Survey in June 2017. Survey results are summarized below.

The survey was inclusive and representative of the population of Saskatoon. The focus was to gauge environmental awareness, knowledge, attitudes, and motivations of residents and the Industrial, Commercial, and Institutional (ICI) sector.

Results from the survey will be used to inform and direct communications and engagement activities undertaken by the Environmental and Corporate Initiatives division in support of new and existing environmental projects and programs.

Residential findings (817 respondents):

Views regarding whether Climate Change is happening, and whether it is human caused:

- 57% believe that climate change is happening and caused by human activity (slightly lower than the Canadian average (60%)).
- 32% believe that climate change is happening, but that it's not conclusively caused by human activity (slightly higher than the Canadian average (30%)).
- 10% believe that the science is not conclusive that climate change is happening (same as the Canadian average).

Perceived level of knowledge about climate change:

- 9% self-report that they are extremely well informed and 30% self-report that they are very well informed about climate change (higher than the Canadian average (27%)).
- 50% self-report that they are somewhat well informed about climate change.
- 10% self-report that they are not very well informed and 1% self-report that they are not at all informed about climate change.

Perception of how climate change will affect Saskatoon:

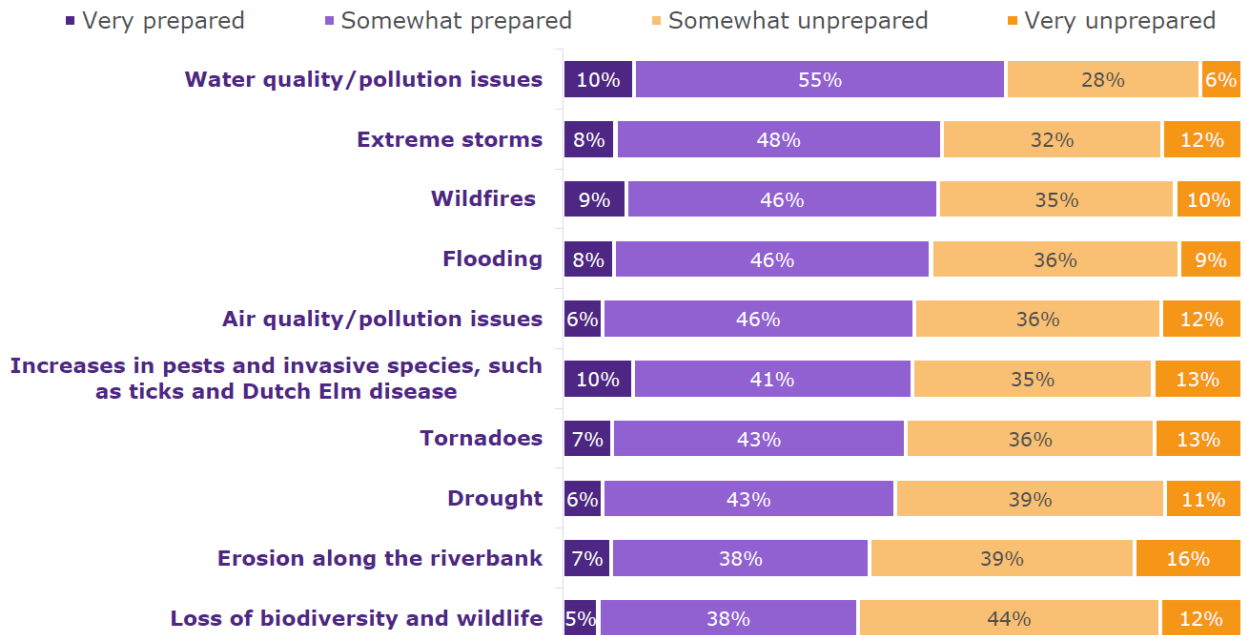
- 32% of residents feel that climate change is already negatively affecting Saskatoon today.
- 57% believe that climate change is not affecting Saskatoon right now, but will in the future.
- 11% do not believe that climate change is affecting Saskatoon today, nor will it in the future.

The public rates the efforts of the City of Saskatoon in addressing environmental issues: as follows:

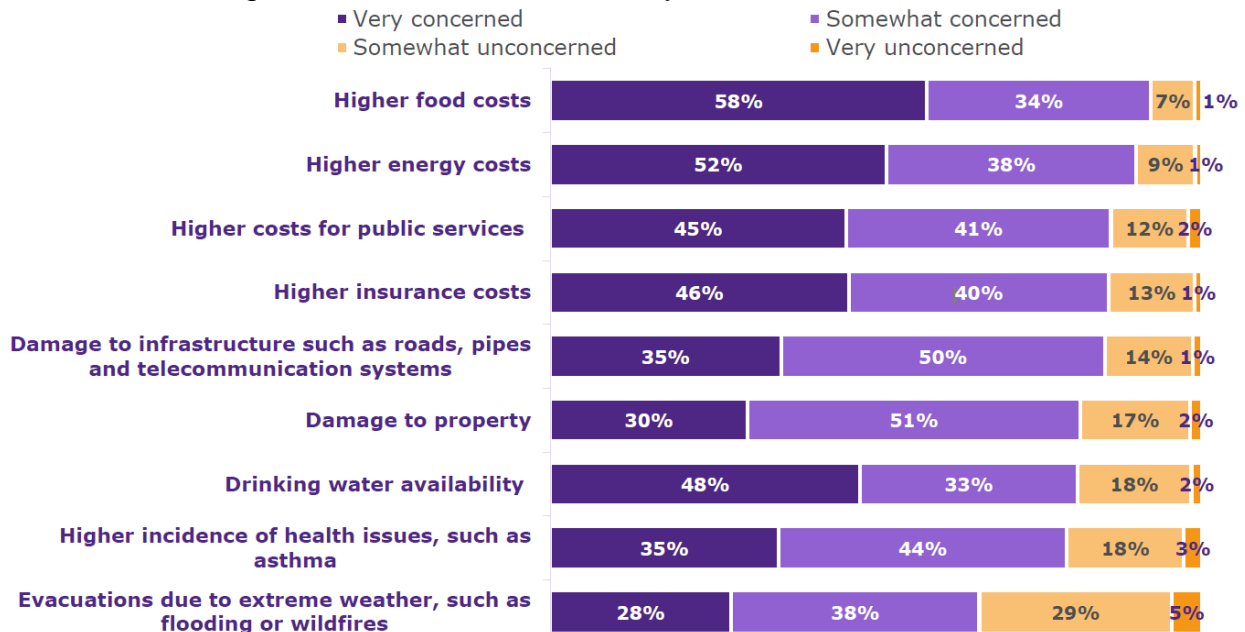
- 7% (excellent), 53% (good), 34% (only fair), and 6% (poor).
- When broken down by environmental area:
 - Residents rated the City's environmental performance to be strongest on protecting the riverbank and other natural areas, offering waste

- management programs, and developing active transportation routes for cyclists and pedestrians.
- Residents rated the City's environmental performance to be lowest on reducing pollution, reducing greenhouse gas emissions, and improving public transit.

When asked how well-prepared the City is to deal with threats pertaining to climate change, views were mixed:



Residents' concerns about the potential impacts of climate change were highly linked to how climate change could affect them financially:



When asked to identify the main environmental issues facing Saskatoon today, residents provided a variety of responses:

Waste/Recycling Mentions – 55%

- 28% Waste management/too much garbage sent to the landfill
- 14% Availability of recycling program/recycling program is inadequate
- 8% Litter/garbage/city cleanliness
- 2% Inadequate composting programs
- 3% Other waste/recycling mentions



Sustainability Mentions – 53%

- 12% Poor drinking water/water pollution
- 9% Water management/conservation
- 9% Pollution (general)
- 7% Urban sprawl
- 7% Traffic congestion/gridlock
- 6% Air quality
- 5% Poor transit system

Climate Change Mentions – 30%

- 10% Climate Change/Global Warming
- 6% Greenhouse/carbon emissions
- 5% Extreme weather
- 5% Lack of renewable energy sources
- 4% Emissions from vehicles

Q1. In your opinion, what is the most important environmental challenge facing Saskatoon today?

Other findings include:

- 25% are very likely and 59% are somewhat likely to purchase environmentally friendly goods and services.
- 57% totally agree and 37% somewhat agree that they have a responsibility to leave a better world for their children / future generations.
- 36% totally agree and 48% somewhat agree that more restrictions on industry are needed to stop pollution.
- 26% totally disagree and 40% somewhat disagree that growing the economy should take priority over protecting the environment.

Industrial, Commercial, Institutional (ICI) Sector findings (151 respondents):

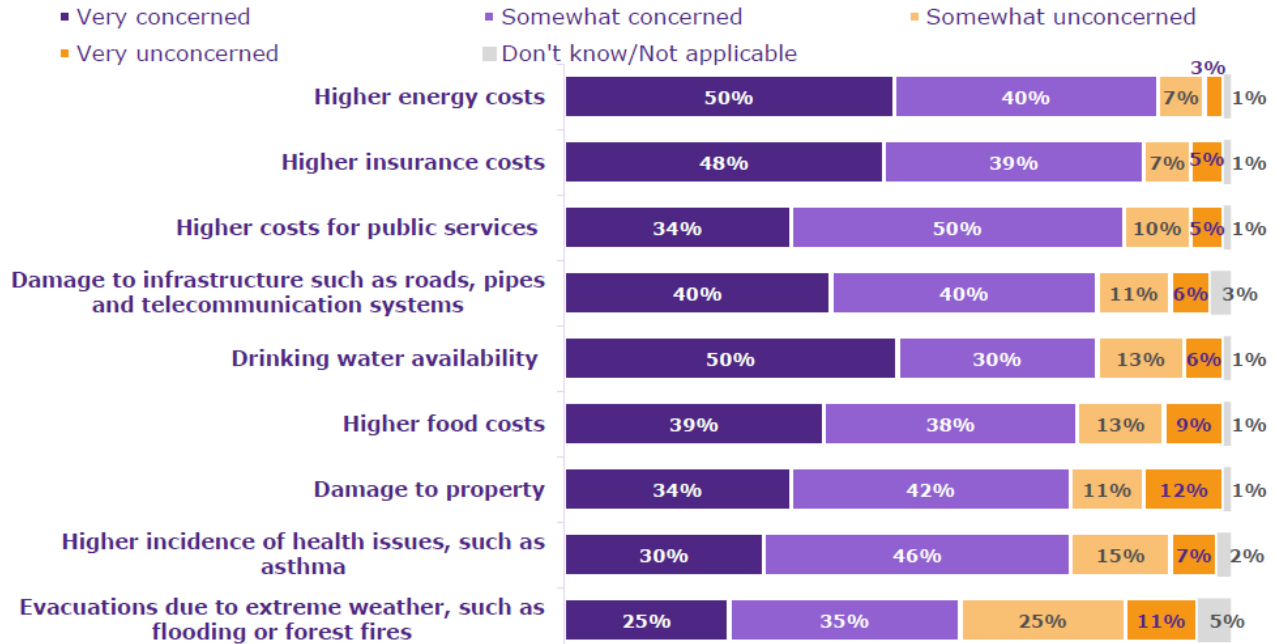
- 62% believe that protecting the environment is a “major issue” for their business/organization.
 - Protecting the environment was rated as more of a major issue than Corporate Social Responsibility (50%), utility rates (34%), and property tax rates (31%).
 - Protecting the environment was rated as less of a major issue than meeting industry best practices (73%) and following government regulations (72%).
- Not having control over a facility and the cost of environmental improvements are the two main barriers to installing environmental technology (i.e. insulation, better windows, high-efficiency equipment, solar panels).

- 31% currently have an environmental sustainability plan in place, with larger businesses/organizations more likely to have one.

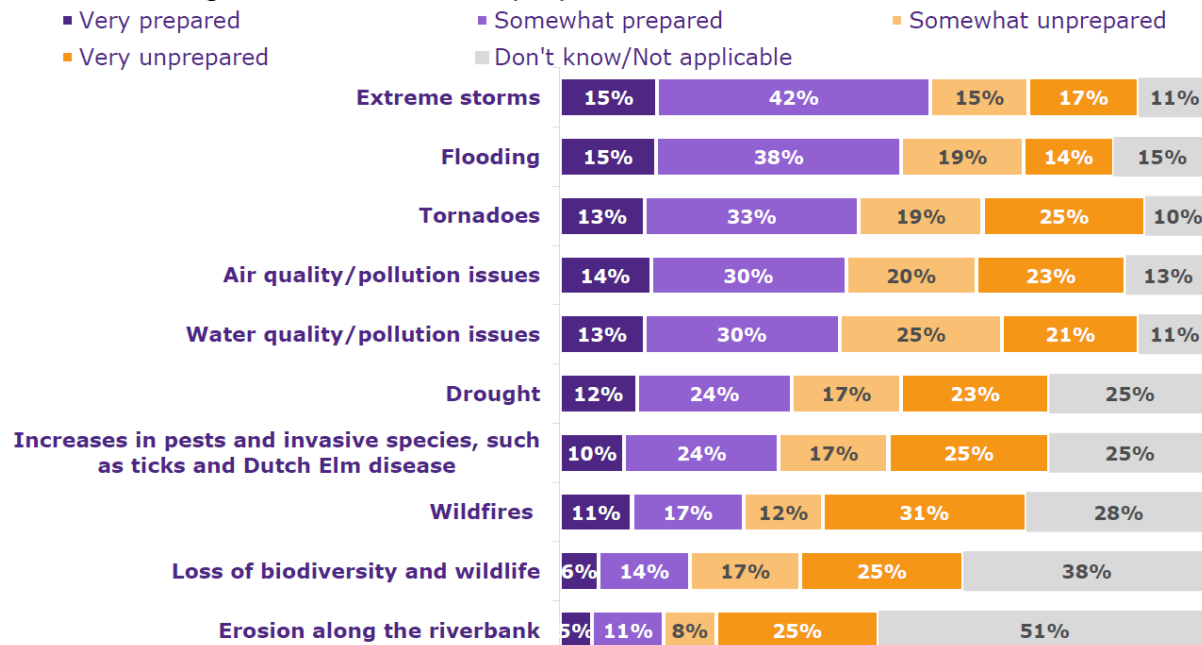
When asked how climate change will impact their business/organization:

- 28% feel that climate change will have a major impact in the next 10 years.
- 44% feel that climate change will have a minor impact in the next 10 years.
- 25% feel that climate change will have no impact in the next 10 years.

The ICI sectors' concerns about the potential impacts of climate change include:



Businesses/organizations feel most prepared to deal with extreme storms and flooding:



Saskatoon businesses/organizations would like the City of Saskatoon to provide more support to the ICI sector:

- The ICI sector rates the efforts by the City of Saskatoon to help businesses/organizations to reduce their environmental impacts as:
 - 3% (excellent), 25% (good), 48% (only fair), and 17% (poor).
- 42% of businesses/organizations are very interested and 42% of businesses/organizations are somewhat interested in having the City of Saskatoon support their efforts to reduce their environmental impacts.
- 27% strongly agree and 27% somewhat agree that their business/organization needs support to adapt to the government's decision to put a price on carbon emissions.

Other findings include:

- 48% strongly agree and 35% somewhat agree that their clients expect their business/organization to be environmentally responsible.
- 17% of businesses always purchase environmentally-friendly products and services (39% often; 33% sometimes; 8% rarely; 1% never).
- 37% strongly agree and 39% somewhat agree that more restrictions on industry are needed to stop pollution.
- 28% strongly disagree and 28% somewhat disagree that growing the economy should take priority over protecting the environment.

Corporate Environmental Management System

Recommendation

That the Standing Policy Committee on Environment, Utilities and Corporate Services recommend to City Council:

That the allocation of Corporate Performance Department Capital Funding of \$80,000 to support planning for a corporate-wide Environmental Management System (EMS) be referred to the 2018 Business Plan and Budget deliberations.

Topic and Purpose

The purpose of this report is to seek City Council approval to support the planning and development of a corporate-wide EMS.

Report Highlights

Environmental & Corporate Initiatives has begun to research the Provincial and Federal regulatory landscape and developed a risk management approach that may help improve performance in environmental protection if used to develop a corporate EMS that will ensure activities in Saskatoon align with identified regulations.

Strategic Goals

This report supports the Strategic Goals of Quality of Life and Environmental Leadership to enhance public safety and promote responsible land use.

Background

The Administration recently reviewed the status of civic policies and bylaws in relation to Provincial and Federal Acts and Regulations as part of a response to an Inquiry by former Councillor P. Lorje (September 19, 2016) respecting an Environmental Protection Bylaw.

Report

Environmental Management System

As Administration has worked to review current regulatory obligations and opportunities for enhancements to civic bylaws, the potential and value of developing an EMS for Saskatoon has been identified.

An EMS is a compliance-focused, continuous improvement framework developed by the International Standards Organization (ISO) with the specific purpose of guiding organizations towards improved environmental performance.

Attachment 1 presents the key elements of an EMS as described by the ISO. Initial research into the benefits of developing and implementing a corporate-wide EMS include:

- Improved understanding of the opportunities for better environmental protection (including improved understanding of the tools for achieving protection, such as bylaws, policies, procedures, etc.);

- Reduced energy and materials costs;
- Reduced costs associated with wastes of all types and associated waste management;
- Reduced cost through efficiency of work practices;
- On-going compliance with legislation and regulatory requirements;
- Improved environmental performance indicators for the corporation, community and surrounding environment; and
- Improved image as a sustainable city.

The specific value of a corporate-wide EMS to the development and implementation of an Environmental Protection Bylaw is that it provides a formal mechanism to review the ever-changing regulatory landscape against civic business processes to ensure the City meets its compliance obligations for due diligence as an approving authority. It also increases the likelihood that opportunities will be identified for improving the City's approval processes in a timely manner and in alignment with desired outcomes for Saskatoon's environmental protection.

Administration is developing plans to enable the further investigation of EMS and the coinciding review of opportunities for improved environmental protection through a new Environmental Protection Bylaw. Such an investigation would be new work for the Administration; however, the City already has a number of projects, programs, and initiatives helpful toward achieving a functional corporate EMS. A few examples are presented in Attachment 2.

As the Administration has researched the Provincial and Federal regulatory landscape, Environmental and Corporate Initiatives has developed a Risk Management Approach (Attachment 3) to guide future performance improvements in environmental protection. The approach is expected to be useful in developing a corporate-wide EMS that will ensure activities in Saskatoon align with existing, new, and proposed regulatory requirements as well as environmental commitments and corporate and community strategic values.

Financial Implications

Administration has identified that more work is required to develop the full scope and potential of a corporate-wide EMS and any associated bylaw, policy and procedural changes that may result from the implementation of such a system. Administration recommends allocating \$80,000 of Corporate Performance Department capital funding to this effort in 2018.

Environmental Implications

The implementation of an EMS can lead to a variety of environmental benefits including a reduction in greenhouse gas emissions, improved effluent quality from sewer and storm systems, and a reduction in waste generation.

Other Considerations/Implications

There are no public and/or stakeholder involvement, communications, policy, privacy, or CPTED implications or considerations.

Due Date for Follow-up and/or Project Completion

If funding for further work on an EMS is approved, the Administration will provide an update report to the Standing Policy Committee on Environment, Utilities and Corporate Services outlining a resource plan and business case for the implementation of a corporate-wide EMS, along with opportunities for enhancements to civic bylaws and policies in October 2018.

Public Notice

Public Notice pursuant to Section 3 of Policy No. C01-021, Public Notice Policy, is not required.

Attachments

1. Key Elements of an Environmental Management System (EMS) International Standard ISO 14001
2. Current Examples of Initiatives Contributing to the Development and Implementation of an Environmental Management System (EMS) for the City of Saskatoon
3. Risk Management Approach – Environmental Leadership & Compliance

Report Approval

Written by: Matthew Hiltz, Project Engineer, Environmental and Corporate Initiatives
Reviewed by: Twyla Yobb, Environmental Protection Manager, Environmental and Corporate Initiatives
Brenda Wallace, Director of Environmental and Corporate Initiatives
Approved by: Jeff Jorgenson, Acting General Manager, Corporate Performance Department

CP EUCS MH – Admin Report – Corporate Environmental Management System

Key Elements of an Environmental Management System (EMS) International Standard ISO 14001

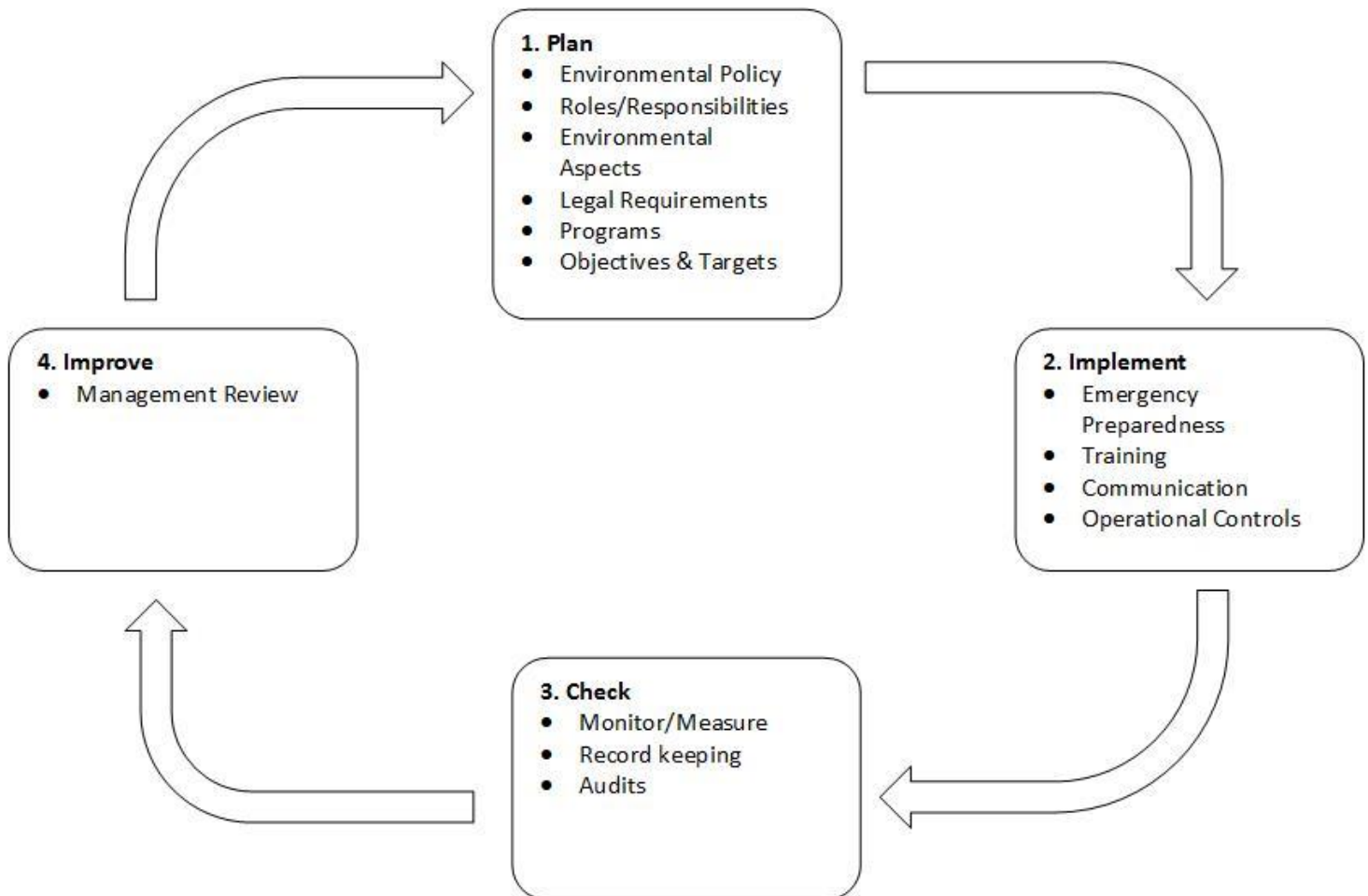
1. **Environmental Policy** – establishes the principles of action for an organization and sets the level of environmental responsibility and performance required of the organization.
2. **Planning**
 - 2.1. **Environmental Aspects** – understanding and documenting how activities, products, and services interact with land, air, water, wildlife, and biodiversity.
 - 2.2. **Legal and Other Requirements** – documented acknowledgement of corporate obligations to higher levels of government through legislation, regulation, permits, or similar standards. Other requirements refer to agreements with public authorities, customers, voluntary principles, stewardship commitments, etc.
 - 2.3. **Setting Objectives and Targets** – published to fulfil the commitments established in the environmental policy and other organizational goals (e.g. strategic plans). This may also include documenting the programs in place to achieve the stated objectives and/or targets.
3. **Implementation**
 - 3.1. **Resources, Roles, Responsibilities and Authority** – the formation of specific documents, tasks, reporting procedures, etc. and linking each to a designated individual, position, or level within an organization.
 - 3.2. **Competence, Training and Awareness** – identification of the training types, audience (i.e. organizational workgroup or individual(s)) and the purpose of each training activity.
 - 3.3. **Communication** – formalized process for the internal flow of information (documentation, reporting, organization charts, procedure and process descriptions, emergency plans, and the controls to manage the information) and external (stakeholder) engagement and feedback.
 - 3.4. **Operational Control** – methods of controlling external influence on environmental aspects. Examples include – procurement practices, contracting agreements, marketing and advertising, handling and storage of materials, research, design, engineering, transportation, etc.
 - 3.5. **Emergency Preparedness and Response** – procedures to control accidental emissions to the atmosphere, land, and water, as well as specific environment and ecosystem effects from accidental releases.
4. **Checking**
 - 4.1. **Monitoring and Measurement** – systematic approach to collecting information for measuring and monitoring environmental performance on a regular basis.
 - 4.2. **Audits** – internal audits at planned intervals to identify areas of nonconformity, corrective action, and preventive action. It is an evaluation of system

performance (process and procedure) and environmental performance (objectives and targets).

4.3. Control of Records – a key element to the success of an EMS is the records developed to provide evidence of the ongoing operation and results of the EMS. Features of environmental record control include means of identification, collection, filing, storage, maintenance, retrieval, and retention.

5. Improve

5.1. Management Review – an organization’s top management should, at planned intervals, review its EMS to evaluate the system’s continuing suitability, adequacy, and effectiveness in the context of its corporate values. This is a key attribute of continuous improvement which identifies opportunities for improvement and implements actions for achievement.



Current Examples of Initiatives Contributing to the Development and Implementation of an Environmental Management System (EMS) for the City of Saskatoon

The following table highlights a few examples where civic initiatives are advancing corporate and community-wide environmental protection. These initiatives would be useful in advancing a new Environmental Protection Bylaw and an EMS that would be an important method for tracking environmental performance, identifying opportunities for improvement, and ensuring enforcement of regulatory requirements.

EMS Element	Environmental Project or Program
<p>1. Environmental Policy</p>	<p>The City has adopted an Environmental Policy (C02-036). The policy states the intentions and objectives in relation to the desired overall performance of the City of Saskatoon towards community sustainability.</p> <p>Additional policies contain environmental protection measures, such as:</p> <ul style="list-style-type: none"> o Corporate Purchasing Policy (A02-027) - includes an environmental purchasing section, which states that purchasing should consider environmentally preferred products and services. o Civic Vehicles (A07-020) - includes a section that restricts civic vehicle and equipment idling after more than three consecutive minutes, between -5 and 27 degrees Celsius (°C). o Wetland Policy (C09-041) - provides guidance to landowners, developers and municipal staff on achieving responsible integration of wetlands into the urban environment. <p>Sustainability is also enshrined within the Official Community Plan and work is underway to update the Plan to clarify environmental objectives.</p>
<p>2. Environmental Aspects</p>	<ul style="list-style-type: none"> • The Brownfield Renewal Strategy will identify how the proposed Bus Rapid Transit (BRT) and subsequent corridor growth program interacts with brownfields and contamination. This information will be used to develop a strategy to overcome identified barriers and has applicability throughout the community. • The Green Infrastructure Strategy provides the first step toward ensuring sustainability and biodiversity are maintained and enhanced through

EMS Element	Environmental Project or Program
	<p>consideration of natural areas as both important infrastructure and as part of valuable ecological systems.</p> <ul style="list-style-type: none"> • University and other organizational partnerships provide valuable research and data on various environmental aspects within the Saskatoon region.
<p>3. Legal and Other Requirements</p>	<ul style="list-style-type: none"> • Covenant of Mayors - In 2015, the City of Saskatoon became a signatory to the Compact of Mayors, now the Global Covenant of Mayors for Climate and Energy, committing to address climate change by reducing greenhouse gas emissions. • Environmental & Corporate Initiatives administers Environment Canada's Single Window Information Management portal for civic facilities reporting on releases to land, air, and water. This initiative includes an active review of changing Provincial and Federal environmental legislation and regulations. • New Sanitary Sewer Use Bylaw – An update to the existing 1971 sanitary sewer use bylaw to align with the national Waste Water Effluent Strategy.
<p>4. Objectives, Targets, and Programs</p>	<ul style="list-style-type: none"> • Greenhouse Gas Targets - City Council set short- and long-term GHG targets for the community and corporation in June 2017. These include: reducing corporate emissions by 40% and community emissions by 15% below the 2014 benchmark by 2023, and reducing both corporate and community emissions by 80% below the 2014 benchmark by 2050. • Waste Diversion Target - City Council has adopted a number of Corporate Performance Targets to be achieved by 2023, including to divert 70% of waste from the Saskatoon landfill. • Water Quality Monitoring – An assessment of storm water and river water quality monitoring practices is underway to improve corporate capacity to store, analyze, and report water quality data for the purpose of ensuring surface water protection guidelines are met.
<p>5. Resources, Roles, and Responsibilities</p>	<ul style="list-style-type: none"> • Contaminated Site Advisory Services – A generic Environmental Protection Plan was created to streamline regulatory compliance and reduce costs for projects that encounter contaminated soils. • Climate Change Mitigation Business Plan – The Business Plan will outline pathways that the community and corporation could engage to reduce emissions within the community along with the role of the City in facilitating

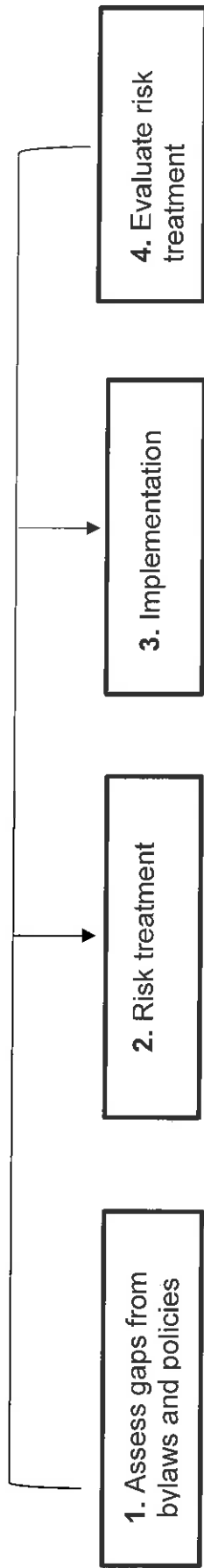
EMS Element	Environmental Project or Program
<p>6. Competence, Training and Awareness</p>	<p>The plan will also identify the effects of mitigation on the carbon levy.</p> <ul style="list-style-type: none"> • Corporate Spill Response – Environmental & Corporate Initiatives hosts annual training for corporate staff to ensure understanding of municipal employee roles and responsibilities for spill reporting obligations under <i>The Environmental Management and Protection Act</i>. • Energy Performance Contracting – This project includes training for facilities staff on new systems installed, and building maintenance best practices to achieve high building energy and water efficiencies. • Sustainable Workplace Program – Civic employees are being engaged to identify operation and process improvements, as well as individual opportunities to improve environmental performance.
<p>7. Communication</p>	<ul style="list-style-type: none"> • The City offers a number of community education programs to communicate the value and importance of environmental protection. Examples include Student Action for a Sustainable Future (SASF), Healthy Yards, Yellow Fish Road, etc. • Enhancements to the communication of environmental obligations are also being developed. For example: <ul style="list-style-type: none"> ◦ Contractor Guidelines – Development of guidelines that describe environmentally-friendly practices that are expected of contractors working for the City of Saskatoon.
<p>8. Operational Control</p>	<p>As an example of operational control, waste management programs are offered to the community to influence environmental outcomes. Examples include:</p> <ul style="list-style-type: none"> • Curbside and Multi-Unit Residential Recycling – enabling the collection and processing of recyclable materials. • Household Hazardous Waste (HHW) Days – regular HHW Days allow residents to drop off their household hazardous waste materials, for free, to be recycled or safely disposed of. • Recovery Park – Plans are in place to construct a new waste diversion center to divert waste from the landfill, including construction and demolition waste, recyclables, organics, hazardous materials, and reusable items.

EMS Element	Environmental Project or Program
<p>9. Emergency Preparedness and Response</p>	<ul style="list-style-type: none"> • Corporate Adaptation Strategy – developing a prevention and response strategy for climate change events. • Business Continuity Planning – developing plans that protect critical business processes from disruption where possible and speeds recovery after disruption has occurred
<p>10. Monitoring and Measurement</p>	<ul style="list-style-type: none"> • Our Environment Reporting - Our Environment (reported online annually) measures Saskatoon’s environmental performance related to land, air, water and waste. The report and online dashboard highlight the impacts of the City as a municipal government, and Saskatoon as a whole. • Ecological Footprint Reporting - The City of Saskatoon has committed to reporting its ecological footprint every five years in order to track and measure progress towards sustainability and quality of life. It is used to measure the environmental impact of Saskatoon’s consumption of food, transportation, housing, goods and services, and government services. • Integrated Waste Annual Report - The performance of civic waste handling and reduction programs are reported to City Council annually in the Integrated Waste Management Annual Report. The data is used to develop and improve upon the City’s waste management programs, as well as to promote improved waste stewardship in the community. • Annual Report on Environmental Protection - A report on the projects, programs and support services provided by the City of Saskatoon to prevent the release and impact of pollutants on the environment.
<p>11. Audits</p>	<ul style="list-style-type: none"> • GHG Inventory and Reporting - In 2016, City Administration completed a community Greenhouse Gas Emissions Inventory for the 2014 fiscal year, and will continue to update the inventory regularly. The City of Saskatoon has adopted the Greenhouse Gas Protocol’s Global Protocol for Community-Scale Greenhouse Gas Emission Inventories. • Natural Capital Asset Management System – The Asset Valuation project will introduce procedures for managing public natural infrastructure within Saskatoon to allow for appropriate strategy development (i.e., maintenance, replacements, development); annual reporting may occur on financial statements and will require monitoring and annual adjustments.

EMS Element	Environmental Project or Program
12. Control of Records	<ul style="list-style-type: none"> Contaminated Site Advisory Services - Environmental & Corporate Initiatives has developed an impacted sites map and database for use of corporate staff to identify potential and actual impacted properties within the City.

RISK MANAGEMENT APPROACH
ENVIRONMENTAL LEADERSHIP & COMPLIANCE

POLICY PROGRAM AND PLANNING



1. Assess gaps from bylaws and policies

Risk Identification

- a. What is the risk arising from the gap?
- b. What are the undesired consequences of this gap? Develop alternative scenarios.
- c. Consider what principles/provisions from regulations are not being covered with the gap based on the guiding principles.

2. Risk treatment

Generate options

- a. Set clear, practical, and enforceable requirements.
- b. Seek opportunities to strengthen and clarify principles/provisions within bylaws to increase enforceability.
- c. Set thresholds for discharges and/or reporting.
- d. Develop risk matrices and establish priorities relating to permits, approvals, inspections, etc.

3. Implementation

Develop Implementation Plan

- a. Develop and apply a comprehensive implementation plan outlining specific tasks and timeframes for its completion, roles, responsibilities, accountabilities, plans for communication and engagement of interested and affected parties, and criterion for monitoring and evaluation.

4. Evaluate risk treatment

Apply filters through criteria:

- a. Cost Effective (the risk treatment options reduce risk and are consistent with the cost of implementation)
- b. Stakeholder Acceptance (fairness, differential impacts and benefits, overall cost)
- c. Compliance Rates (Is compliance at an acceptable level?)
- d. Accordance with Principles (Alignment with corporate values and goals)

Inquiry – Former Councillor P. Lorje (September 19, 2016) – Development of an Environmental Protection Bylaw

Recommendation

That the report of the Acting General Manager, Corporate Performance Department dated September 11, 2017, be forwarded to City Council for information.

Topic and Purpose

The purpose of this report is to provide information on an Environmental Protection Bylaw and additional requirements for businesses that apply to the City for a business license.

Report Highlights

1. The current business licensing process includes requirements for proof of adherence to provincial licensing for certain types of activities.
2. For the City of Saskatoon (City) to develop an Environmental Protection Bylaw, further research would be required to ensure the bylaw focusses on matters that are not already covered by Provincial and/or Federal regulation.

Strategic Goals

This report supports the Strategic Goals of Quality of Life and Environmental Leadership to enhance public safety and promote responsible land use.

Background

The following inquiry was made by former Councillor P. Lorje at the meeting of City Council held on September 19, 2016:

“A salvage yard fire in June 2016 highlighted that there may be a gap in our policies, bylaws or enforcement activities with respect to environmentally-sound business practices. As a result, some private properties may contain operations that are potentially hazardous to the community, the environment, and the safety of workers and emergency responders. Will the Administration please report on what could be done to close this gap?”

Is it possible to adopt an Environmental Protection Bylaw that clarifies expectations in relation to industry, environmental and safety regulations set at the Federal or Provincial level? Finally, when applying for a license from the City, what more could businesses be required to provide to ensure sufficient safeguards and good management practices are in place?”

Report

Business Licensing Process

The Community Standards Division has established a business licensing process based on The Business License Bylaw, 2002 (Bylaw No. 8075). The purpose of the Bylaw is to regulate businesses to ensure compliance with land-use and building regulations. The licensing process also includes a requirement for proof of provincial licensing for certain types of activities.

There are several types of businesses which are required to hold provincial licensing for their business operations. Attachment 1 provides a list of the known provincial licensing requirements. Under the Business License Bylaw, a business license will not be issued by the City until the applicant has first produced a provincial license.

The Business License Bylaw also specifies that issuance of a business licence does not relieve a business from complying with requirements of other agencies. The City has the ability to revoke or suspend a business license if a licensee does not conform to zoning, building, plumbing, or other requirements of the City.

Opportunities to Enact an Environmental Protection Bylaw

Businesses within the City of Saskatoon may contain operations potentially hazardous to the community or the environment and are legally obliged to adhere to Provincial and/or Federal regulatory requirements. The Acts and Regulations established by both levels of government include a number of extensive protocols to address the identification, care, handling, storage and disposal of environmentally hazardous substances, as well as outlining how breaches of these laws will be handled.

The City may identify issues related to the proper care, handling, storage or disposal of hazardous materials it wishes to regulate through a bylaw. Enforcement of such matters can be challenging unless the issue is very clearly identified as being outside or 'beyond' the Provincial and Federal requirements. The problem in this area is a City bylaw may be challenged as being unenforceable if it conflicts in any way with current Provincial or Federal laws.

The City's Noise Bylaw is one example where the City has experience of this enforcement issue. The Federal government has established that a motorcycle manufactured in, or imported into Canada must have an exhaust system which does not exceed a specified decibel limit. There is no Federal penalty for operating a vehicle that exceeds said limit, which creates a gap in the regulatory field. The City was then able to draft a noise bylaw setting a decibel limit and creating an offense for motorcycle operations within the City where the limit was exceeded.

Other municipalities in Canada have sought to identify areas where bylaws can complement but not conflict with the Federal or Provincial hazardous materials regulation to achieve higher levels of environmental performance. A number of these are related to land use regulations. Examples include, but are not limited to:

- Landscaping and screening;
- Tree protection;
- Soil deposit and removal;
- Watercourse protection;
- Pesticide control; and
- Alien invasive species.

To a certain degree, the City's current bylaws provide some coverage of these areas. Examples include the Zoning Bylaw, Recreation Facilities and Parks Usage Bylaw, and Stormwater Management Utility Bylaw. Also, the Fire and Protective Services Bylaw includes provisions specific to hazardous substances (i.e. storage tanks) and discharges into City roadways, ditches, and sewer systems.

The Administration can continue to review and update City bylaws as they relate to environmental protection and associated Provincial and Federal environmental regulations. It is anticipated that regulatory areas where an Environmental Protection Bylaw could be used to enhance public and environmental safety would be identified.

Public and/or Stakeholder Involvement

The Administration continues to maintain links with the Provincial and Federal environmental protection authorities tasked with the regulation of hazardous substances, and draw upon their expertise as required.

Financial Implications

Development and implementation of an Environmental Protection Bylaw would require additional research and work. Additionally, there would be on-going program oversight and enforcement costs. If City Council desires further work in this regard, the Administration will develop and present a work plan and budget.

Other Considerations/Implications

There are no options, communications, policy, environmental, privacy, or CPTED implications or considerations.

Due Date for Follow-up and/or Project Completion

There will be no follow-up report.

Public Notice

Public Notice pursuant to Section 3 of Policy No. C01-021, Public Notice Policy, is not required.

Attachment

1. Known Provincial Licenses/Certifications

Report Approval

Written by: Matthew Hiltz, Project Engineer, Environmental and Corporate Initiatives

Inquiry – Former Councillor P. Lorje (September 19, 2016) – Development of an Environmental Protection Bylaw

Reviewed by: Twyla Yobb, Environmental Protection Manager, Environmental and Corporate Initiatives
Brenda Wallace, Director of Environmental and Corporate Initiatives
Jo-Anne Richter, Business Licensing & Bylaw Compliance Manger, Community Services
Luc Durand, Acting Fire Marshal, Saskatoon Fire Department

Approved by: Jeff Jorgenson, Acting General Manager, Corporate Performance Department

CP EUCS MH - Admin Report - Inquiry – Former Councillor P. Lorje (September 19, 2016) – Development of an Environmental Protection Bylaw

Known Provincial Licenses/Certifications

When applying to the City for a business license, certain business types will not be issued a license until relevant Provincial, Federal, or other licenses or certifications have been produced. Below is a list of business types where an application will be held under such circumstances:

- Automotive Dealers – applications require verification of a motor dealers license from Saskatchewan Consumer Affairs;
- Direct Sellers/door-to-door sales – applications require proof of Provincial Direct Sellers License;
- Gas Installation and Distribution Contractors - applications require a Provincial License;
- Hair Salons – applications require a valid journeyperson trade certificate;
- Limousine and Shuttle Services – applications require operating authority from the Highway Traffic Board;
- Liquid Domestic Waste Haulers - applications require a valid hauling license from the Water Security Agency;
- Massage Therapy - applications require proof of certification;
- Payday Loans - applications require proof of Provincial License;
- Pest Control - applications require a Pesticide Applications License from the Ministry of Agriculture; and
- Private Security and Investigators - applications require a valid license from Ministry of Justice.