City of Saskatoon

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

Monday, March 9, 2015, 2:00 p.m.

Council Chamber, City Hall

Committee Members:

Councillor Z. Jeffries, Chair, Councillor E. Olauson, Vice-Chair, Councillor A. Iwanchuk, Councillor M. Loewen, Councillor P. Lorje, His Worship Mayor D. Atchison (Ex-Officio)

Pages

1. CALL TO ORDER

2. CONFIRMATION OF AGENDA

3. DECLARATION OF PECUNIARY INTEREST

4. ADOPTION OF MINUTES

4.1 Minutes of Regular Meeting of the Standing Policy Committee on Environment, Utilities and Corporate Services held February 10, 2015.

Recommendation

That the minutes of Regular Meeting of the Standing Policy Committee on Environment, Utilities and Corporate Services held February 10, 2015 be adopted.

5. UNFINISHED BUSINESS

6. COMMUNICATIONS (requiring the direction of the Committee)

6.1 Delegated Authority Matters

Recommendation

That the requests for extension to The Noise Bylaw as outlined in 6.1.1 to 6.1.3 be approved subject to any administrative conditions.

6.1.1 Noise Bylaw Extension, High Voltage Classic, March 21 - 22, 2015, Sat. 8:00 a.m. to Sun. 6:00 p.m., 23rd Street in front of Civic Square, Ryan Fink, HVC 2015 Director [File No. CK. 185-9] 8 - 8

Recommendation

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

That an increase of $100,000 to the Household Hazardous Waste Days Program be referred to the 2016 ($50,000) and 2017 ($50,000) Business Plan and Budget deliberations.

7.2.2 2015 Compost Depot Operations (File No. CK. 7830-4-2) 20 - 26

Recommendation

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

1. That the operating hours at the compost depots be approved as follows:

a) East Depot: five days per week, 11:00 a.m. to 5:00 p.m. (closed Monday and Tuesday);

b) West Depot: seven days per week, 9:00 a.m. to 6:00 p.m.;

2. That the new East Compost Depot (transfer station) accept material from residents and small commercial loads only; and

3. That large commercial loads be directed to the West Compost Depot.

7.2.3 2015 Composting Programs (File No. CK. 7830-4-2) 27 - 44

Also attached is a request to speak from Brian Sawatzky, Saskatoon Environmental Advisory Committee (SEAC) dated February 26, 2015 as well as a copy of a letter previously submitted to the Administration and Finance Committee dated May 20, 2014 regarding the Organics Program. SEAC wishes to resubmit its letter at this time.

Recommendation

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

That consultations with Green Cart program subscribers and the public assess support for changing the level of service provided by the existing seasonal program to include food waste.

7.2.4 Award and Price Cap Approval for Short Service Connection Replacement Contracts 2015 (File No. CK. 7780-1) 45 - 52

Recommendation

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

1. That the proposal submitted by Brunner's Construction Ltd. for the Emergency Connection Rehabilitation contract, for work to be done in 2015, at a total estimated cost of $1,851,790.50 (including G.S.T. and P.S.T.), be accepted;
2. That the proposal submitted by Brunner's Construction Ltd. for the Homeowner Request Connection Rehabilitation contract, for work to be done in 2015, at a total estimated cost of $1,071,135.45 (including G.S.T. and P.S.T.), be accepted;
3. That the cap on the residential property owners' portion of service connection replacements be increased from $2,590 to $2,900, plus applicable taxes, effective April 1, 2015; and
4. That the City Solicitor be requested to prepare the appropriate agreement and that His Worship the Mayor and the City Clerk be authorized to execute the agreement under the Corporate Seal.

7.2.5 Saskatoon Water Borrowing Reduction and Funding Reallocation (File No. CK. 1702-1) 53 - 54

Recommendation

That the Standing Policy Committee on Environment, Utilities and Corporate Services recommend to City Council that the transfer of funds from capital and replacement reserves as indicated below, to reduce borrowing by $3,600,000 be approved:

1. $2,900,000 from the Waste Water Capital Project Reserve to the following projects:

a) $1,600,000 for Project #1234 – WWT Odour Abatement System;
b) $800,000 for Project #1243 – WWT Lift Stations Upgrades;
c) $500,000 for Project #2224 – WWT Liquid Waste Haulers Station; and

2. $700,000 from the Water Replacement Reserve to Project #2557 – WTP Acadia Pump Replacement.

7.2.6 Capital Project #625-29 - Feasibility Study - Sanitary River Crossing - Award of Engineering Services (File No. CK. 7820-4) 55 - 58

Recommendation

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

1. That the proposal for engineering services, submitted by Associated Engineering (Sask) Ltd., for the feasibility study of a new sanitary sewer crossing of the South Saskatchewan River, on a time and expense basis, at an estimated cost of $93,473.52 (including GST and PST), be accepted; and
2. That the City Solicitor be requested to prepare the appropriate agreement and that His Worship the Mayor and the City Clerk be authorized to execute the agreement under the Corporate Seal.

7.2.7 Storm and Sanitary Sewer Flow Monitoring Program Expansion and Upgrade - Sole Source (File No. CK. 7820-1 x 1000-3) 59 - 62

Recommendation

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

1. That ISCO flow monitoring equipment be adopted as the City's Standard for storm sewer and sanitary sewer flow monitoring equipment until December 31, 2018;
2. That the Administration prepare a sole source to Avensys Solutions for the supply of ISCO flow monitoring equipment for a total cost of $86,972.55 (including GST); and
3. That Purchasing Services issue the appropriate purchase order.

7.2.8 Source Control Programs for the Sanitary Sewer System (File No. CK. 7820-3) 63 - 70

Recommendation

That the report of the General Manager, Corporate Performance Department dated March 9, 2015, be forwarded to City Council for information.

7.2.9 Advanced Metering Infrastructure Project - Award of Contract with Elster Solutions Canada (File No. CK. 1000-2 x 261-3) 71 - 75

Recommendation

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

1. That a contract with Elster Solutions Canada Incorporated for the supply of electricity meters, water meter communication modules, and AMI software, data collectors and repeaters for the Advanced Metering Infrastructure project for a total fee of $10,878,257.25 (including GST) be approved;
2. That the City Solicitor be requested to prepare the appropriate agreement and that His Worship the Mayor and the City Clerk be authorized to execute the agreement under the Corporate Seal; and,
3. That Purchasing Services be authorized to issue the necessary Purchase Orders to Elster Solutions Canada Incorporated for these purchases.

8. MOTIONS (NOTICE PREVIOUSLY GIVEN)

9. GIVING NOTICE

10. URGENT BUSINESS

11. IN CAMERA SESSION (OPTIONAL)

12. ADJOURNMENT

R5-9

From: Web NoReply
Sent: February 18, 2015 1:44 PM
To: City Council
Subject: Form submission from: Write a Letter to Council

Submitted on Wednesday, February 18, 2015 - 13:44
Submitted by anonymous user: 70.76.66.79
Submitted values are:

Date: Wednesday, February 18, 2015
To: His Worship the Mayor and Members of City Council
First Name: Ryan
Last Name: Fink
Address: 41 - 57 Campus Drive
City: Saskatoon
Province: Saskatchewan
Postal Code: S7N 5A9
Email: hvc@ieee.usask.ca
Comments:
Our UofS student society (IEEE) is putting on our annual charity road hockey tournament, the High Voltage Classic (HVC) on 23rd St in front of Civic Square. The event will be March 21 & 22 2015 and will run non-stop from about 8:00AM Saturday until 6:00PM Sunday night. The proceeds will be donated to the Tamarack Foundation.
While our event will going on throughout the night, we are not anticipating much noise. This year we've opted to not use any sound systems. However, to ensure we are in full compliance, I would like to request an extension of the noise bylaw for our event. If you would like any further info on our event, please contact me.

Thank you,
Ryan Fink
HVC 2015 Director

The results of this submission may be viewed at:
https://www.saskatoon.ca/node/398/submission/2717

185-9

Multiple Sclerosis Society of Canada

RECEIVED
FEB 20 2015
CITY CLERK'S OFFICE
SASKATOON

Saskatchewan Division
22-1738 Quebec Ave
Saskatoon, Saskatchewan S7K 1V9
Telephone: (306)-244-2114
Toll Free: 1-800-691-0890
Fax: (306)-665-3376
www.mssociety.ca

February 20, 2015

City Clerk's Office
222 – 3rd Avenue North
Saskatoon, SK S7K 0J5

Dear, His Worship the Mayor and City Council Members,

The Saskatchewan Blue Cross MS Walk is coming up once again on Sunday April 26th, 2015 in support of the MS Society of Canada – Saskatchewan Division. Our event is mainly indoors at the Archibald Arena, however the Walk portion of the event is along the Meewasin Valley trail and kicks off at 10:00am with the North Saskatchewan Regiment Pipes and Drums playing just outside the Arena's overhead door. Since our kick-off is prior to the current bylaw time, I am requesting an extension of the Amplified Sound Bylaw for our event on Sunday April 26th for 10:00am.

We have been in contact with Mark Planchot the Community Consultant for Area 4 with the City of Saskatoon who has put me in touch with the Richmond Heights Community Association President who will be informing the community of our upcoming event at their next meeting and they will try to make a post through their social media pages as well.

Thank you,

Maggie Lens
Manager, Development – North
MS Society of Canada - Saskatchewan Division
P: 306-244-2114 ext. 5051
E: maggie.lens@mssociety.ca

185-9

Saskatchewan Branch
1-2217 Hanselman Court
Saskatoon, SK S7L 6A8
T. 306.664.8588 / 888.664.8588
F. 306.653.4883
www.kidney.sk.ca

To Whom It May Concern:

I am writing to request a noise bylaw extension on Sunday, May 24th, 2015 for Kiwanis Park North.

The Kidney Foundation of Canada, Saskatchewan Branch has been granted approval to use the park for our Kidney Walk fundraising event. This event brings together approximately 150 members of the kidney community in Saskatoon and surrounding area for a fun run and walk of 1 km, 2 km or 5 km. As part of our event, we include speakers and entertainment (typically a band or DJ).

Set up will begin in the park at 8 a.m. but the entertainment will not begin until 9:30 a.m. We have approval to use the park until 3 p.m.

If you have any questions or concerns, please don't hesitate to contact me. I look forward to your response.

Sincerely,

Erin Gray
Coordinator, Community Programs
Saskatchewan Branch
#1-2217 Hanselman Court
Saskatoon, SK
S7L 6A8

Household Hazardous Waste Days Program Options

Recommendation
That a report be submitted to City Council recommending:

> That an increase of $100,000 to the Household Hazardous Waste Days Program be referred to the 2016 ($50,000) and 2017 ($50,000) Business Plan and Budget deliberations.

Topic and Purpose
This report outlines the importance of the Household Hazardous Waste (HHW) Days Program, identifies the requirement for an increase in funding to match the growth of the program and provides options to improve access to HHW collection.

Report Highlights
1. The HHW Days Program continues to demonstrate growth through resident participation and material collection rates.
2. The current budget allocated to the HHW Days Program is not sufficient to meet current or anticipated demand for services.
3. Opportunities have been identified to improve program convenience and reduce costs associated with HHW events.

Strategic Goals
The recommendation contained in this report supports the four year priority to promote and facilitate city-wide composting and recycling to reduce the rate and volume of waste sent to the landfill, and the long term strategies of soil and water quality protection under the Strategic Goal of Environmental Leadership.

Background
On May 5, 2014, City Council approved the Award of Professional Services Agreement to Envirotec Services Incorporated (Envirotec) to deliver the HHW Days Program for a term of 19 months until December 31, 2015, with the option to extend the Agreement for up to three additional one-year terms. Envirotec was the only respondent to the RFP.

City Council also resolved, in part:

> "that the number of collection days scheduled for 2015 be further reviewed and a report on options be provided for the 2015 Business Plan and Budget deliberations; and
>
> that the Administration report further on the options for improving the convenience of drop-off locations for hazardous materials."

Report
The HHW Days Program has been available to residents of Saskatoon since 2006. The goal of the HHW Days Program is to divert all hazardous materials generated from

residents away from landfills into safe and environmentally responsible disposal or recycling channels.

Participation and Material Collection Rates Continue to Grow

The HHW Days Program experienced higher than anticipated growth in 2014, both in terms of resident participation (2,737 vehicles) and weight of materials collected (73,942 kg). Detailed results are presented in Attachment 1. Results of the 2012 Waste Characterization Study show that HHW represents approximately 0.5% of the curbside residential waste stream – or 300 tonnes. Hazardous materials collected through the HHW Days Program represent approximately 18.5% of the total amount of HHW generated by residents. The success of the program demonstrates the community's awareness and willingness to divert hazardous materials from landfills.

Program Budget Insufficient to Meet Current Demand

The program's current budget of $100,000 is insufficient to cover escalating costs associated with the program. The current budget is expected to be exceeded in 2015; however, the eight events scheduled for 2015 will maximize the efficiency of the events and ensure service is available at times proven historically to be popular. The Administration forecasts that the 2015 events will cost $25,000 each.

Program Convenience and Cost-Sharing Opportunities

A scan of HHW programs in other Canadian cities (Attachment 2) demonstrates that Saskatoon provides a high level of service among municipalities that do not receive provincial funding support. The Saskatchewan Ministry of Environment is developing an Extended Producer Responsibility (EPR) program for HHW, similar to existing provincial programs for used oil materials, scrap tires, electronics, paint and household paper and packaging. No timeline has been established for launching the program, therefore the City of Saskatoon continues to be the sole funder for HHW Days events.

Reducing the number of events has not effectively reduced costs in the past, therefore Administration recommends executing the provision of the contract with Envirotec (which was competitively procured) to lock in unit prices for HHW materials to the end of 2018 as an EPR program is not anticipated before this time.

The Administration will also implement strategies to reduce or share costs for HHW events including:

- encouraging residents (through education efforts) to access existing drop-off programs in the community for batteries, lightbulbs, oil and paint – to be implemented starting in March 2015
- engaging local businesses to promoting 'take-back' programs for batteries and light bulbs – to be implemented starting in May 2015
- continue to explore opportunities to cost-share HHW events by delivering a regional program with surrounding municipalities.

Options to the Recommendation

City Council could choose to reject the recommendation in favour of the following:

- Decrease the number of HHW events in 2015 to four or fewer. Reducing the number of events has not proven to be an effective cost-saving strategy; therefore, the current budget is unlikely to be realized through this approach.
- Enhance HHW disposal opportunities as described in Attachment 3.

Public and/or Stakeholder Involvement

In-person surveys were completed at two HHW events, revealing that while 25% of participants had no problem and/or no comment, suggested improvements included:

- Adding an extra line to reduce wait time (50%) – implemented in November 2014
- Offering an east side drop-off location (8%)
- Offering an additional HHW drop-off event per month (7%)
- Better/more advertisement (5%)
- Providing access to a Public washroom (2%)

Communication Plan

Communications will provide information on the dates of events, accepted materials, the importance of keeping HHW out of the waste stream and surrounding environment, and will highlight existing collection programs for HHW materials in the community. This information will be conveyed through the City's website, social media channels and the Waste and Recycling Calendar.

Financial Implications

The 2015 approved operating budget for this program is $100,000; however, a budget of $200,000 is required to meet the estimated costs of the eight scheduled events. The Administration recommends a budget increase of $50,000 per year over the next two years, to meet the demands of the program.

Environmental Implications

HHW includes a variety of common substances used in and around homes which can pose serious environmental and human health concerns if not managed properly. Many of these substances contain corrosive, toxic, flammable or reactive ingredients that require special handling during use and disposal. Improper containment or disposal can ultimately lead to contamination of our air, land and water resources.

Other Considerations/Implications

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

Due Date for Follow-up and/or Project Completion

A report summarizing the results of the 2015 HHW Days Program, along with a proposed program plan for 2016 will be prepared in advance of the 2016 Business Plan and Budget deliberations in December 2015.

Public Notice

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

Attachments

1. HHW Days Program Results
2. HHW Programs in Other Canadian Municipalities
3. HHW Days Program Enhancement Options

Report Approval

Written by:	Matthew Regier, Environmental Coordinator
Reviewed by:	Amber Jones, Manager of Education and Environmental Performance Brenda Wallace, Director of Environmental & Corporate Initiatives
Approved by:	Catherine Gryba, General Manager, Corporate Performance Department

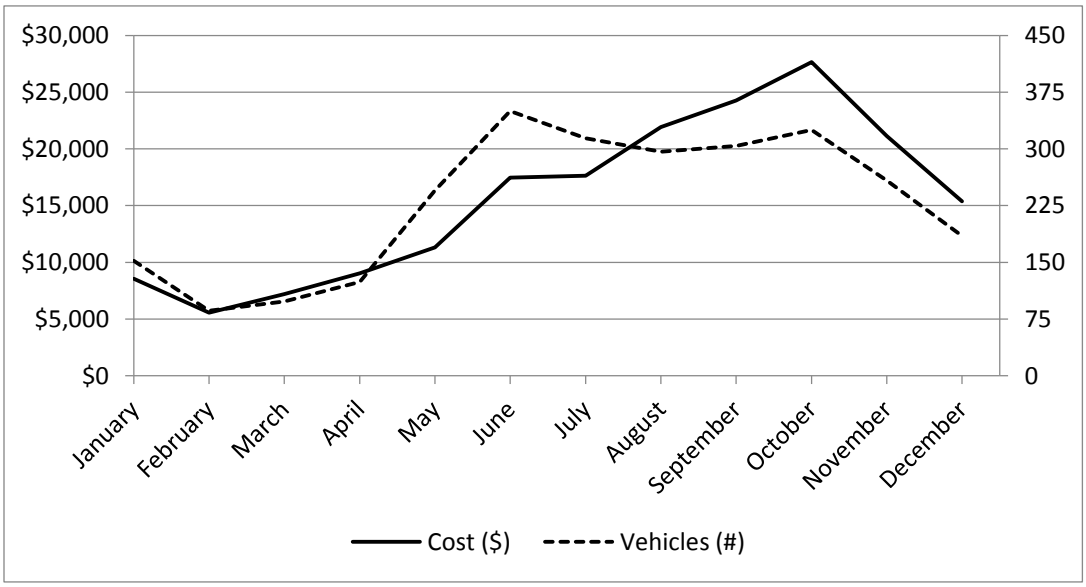
Administrative Report - Household Hazardous Waste Days Program Options.docx

HHW Days Program Results

2014 Event Summary

- Total participants: 2,737
- Average participants per event: 228
- Total weight collected: 73,942 kg
- Average weight collected per event: 6,162 kg
- Average weight collected per participant: 27 kg
- Total cost: $187,042.09
- Average cost per event: $15,586.84 (October event: $27,636.97)

2014 Event Costs and Participation



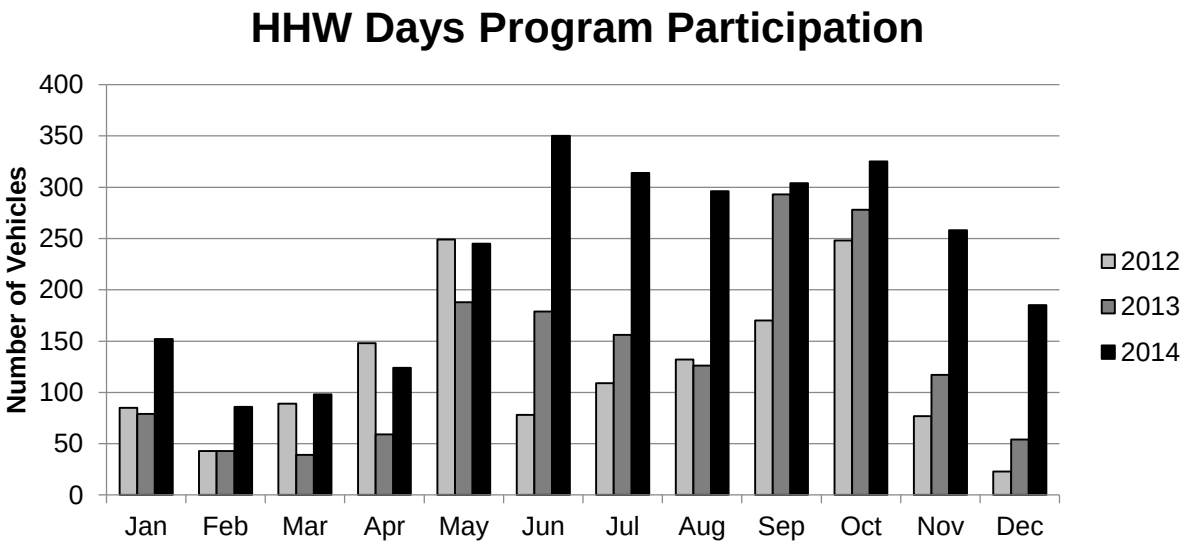
Material Collection Summary

Class Type	% of Total Weight	% of Total Cost
Class 2: compressed gas (includes propane tanks)	7.6%	12.0%
Class 3: flammable liquids (includes paint)	20.5%	20.4%
Class 4: flammable solids	0.7%	1.6%
Class 5: oxidizers	0.6%	3.2%
Class 6: toxics (includes pesticides and pharmaceuticals)	3.9%	13.3%
Class 8: corrosives (not including batteries)	2.9%	5.6%
Batteries	14.0%	3.9%
Non-regulated (includes oil, antifreeze, light bulbs, etc.)	47.2%	14.7%
Other (includes glycol, light ballasts, contaminated water, etc.)	2.6%	2.5%
Insurance	n/a	4.6%
Event Fee	n/a	18.2%

The 2014 program provided collections to 2,737 vehicles and diverted 73,942 kg of materials from the waste stream – establishing a new benchmark for each performance metric.

Year	Participation (# of vehicles)	Weight Collected (kg)
2010	1,274	n/a
2011	1,349	n/a
2012	1,451	40,036
2013	1,611	51,598
2014	2,737	73,942

Event Participation – 3 Year Summary



Note: There were 16 events held in 2012 and 2013 versus only 12 events held in 2014.

HHW Programs in Other Canadian Municipalities

Municipality	Items Accepted	Accessibility	Funding Available from Other Sources
Regina	HHW, major appliances, tires, electronics, toys, books, bedding and more; no paint	2 events in 2014	No
Edmonton	HHW (including paint), sharps, electrical appliances electronics, scrap metals, clean recyclables, and items accepted at the Reuse Centre; charges apply for bulky items such as furniture, fencing and rubble, and certain appliances	4 eco stations open Tuesday to Saturday, 9am-4:30pm (winter hours) and Monday to Saturday, 9am-6:30pm (summer hours)	Currently funded by Government of Alberta; moving toward Extended Producer Responsibility
Calgary	HHW (including paint); no batteries or pharmaceuticals	6 fire stations open daily from 8am-6pm, and 3 landfill Throw 'n' Go locations	Currently funded by Government of Alberta; moving toward Extended Producer Responsibility
Winnipeg	HHW (including paint)	Miller Environmental Corporation open weekdays from 9am-4pm (8pm on Thursdays), first Saturday of each month (October to April), first and last Saturdays of each month (May to September)	Extended Producer Responsibility
Victoria	HHW, paint	Ellice Recycling open weekdays from 7:30am-5pm and weekends from 8:30am-5pm, and Hartland Landfill	Extended Producer Responsibility

Municipality	Items Accepted	Accessibility	Funding Available from Other Sources
Ottawa	HHW (including paint)	4 annual drop-off events held on Sundays from 8am-4pm; locations vary	Depending on material, funded by Recycling Council of Ontario or Extended Producer Responsibility
Halton Region	HHW (including paint)	Halton Waste Management Site open Monday to Saturday, 8am-4:30pm, and 7 additional "special waste drop-off days" from April to October	Depending on material, funded by Recycling Council of Ontario or Extended Producer Responsibility
Markham	HHW (including paint), electronics and batteries	HHW & Electronic Recycling Depot open Thursday to Monday, 8:30am-4:30pm (open until 7pm on Thursdays from April to October)	Depending on material, funded by Recycling Council of Ontario or Extended Producer Responsibility

HHW Days Program Enhancement Options

Program Option	Projected Additional Budget Required
Add public drop-off 'kiosks' for light bulbs at identified publicly-accessible locations	Operating cost implications: $199 per site per month, or $16,716 per year
Add drop-off events in Spring (1) and Fall (1), held at an alternate location(s) – e.g., Prairieland Park or Saskatoon Field House	Operating cost implications: $25,000 per event
Add drop-off option of HHW to Community Clean-up events	Operating cost implications: $5,000 per event
Establish a permanent drop-off location at Recovery Park	Capital improvements required: $56,000 for converted shipping containers for HHW collection, once Recovery Park is operational Operating cost implications: Based on current costs for handling HHW materials, the cost to sort and process HHW (assuming up to 160 tonnes or 50% of the material in the waste stream are diverted) could be more than $300,000 annually
Expanded communications for HHW 'take-back' opportunities in the community – e.g., paint, pharmaceuticals, used oil, etc.	Operating cost implications: $10,000 per campaign for development of materials and implementation (engagement) of program
Set up a permanent program for drop-off at fire halls	Capital improvements anticipated: $150,000 per fire hall Operating cost implications: Based on current costs for handling HHW materials, the cost to sort and process HHW (assuming up to 240 tonnes or 75% of the material in the waste stream are diverted) could be more than $700,000 annually

2015 Compost Depot Operations

Recommendation

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

1. That the operating hours at the compost depots be approved as follows:
   a) East Depot: five days per week, 11:00 a.m. to 5:00 p.m. (closed Monday and Tuesday);
   b) West Depot: seven days per week, 9:00 a.m. to 6:00 p.m.;
2. That the new East Compost Depot (transfer station) accept material from residents and small commercial loads only; and
3. That large commercial loads be directed to the West Compost Depot.

Topic and Purpose

This report provides options for the compost depot hours of operation and commercial hauler requirements for the 2015 compost operating season.

Report Highlights

1. A new, temporary East Compost Depot will be developed near Highway 5 and Zimmerman Road. Cost savings will be realized by operating this depot as a transfer station and hauling all material to the West Compost Depot for processing.
2. The success of the compost depots in 2014 contributed to a 50% overage in operating expenses. To more closely align with the 2015 operating budget, the Administration is recommending that the East Compost Depot operate at reduced hours, 5 days per week; with minimal changes to the West Compost Depot hours of operation.
3. Hauling costs to transfer the material can be reduced by limiting the use at the East Compost Depot to residential customers and small commercial loads only. Large commercial loads will be directed to the West Compost Depot.
4. An increase to the commercial hauler permit fee is not recommended for 2015.

Strategic Goals

The recommendations in this report support the Strategic Goal of Environmental Leadership. Composting operations respond directly to the four-year priorities to promote and facilitate city-wide composting and recycling and eliminate the need for a new Landfill by diverting waste for re-use.

Background

In June 2013, the Administration & Finance Committee received a report on Composting Program Fees for 2014. The report recommended increasing the commercial hauler permit fee to $200 for the first vehicle and $50 for each additional vehicle (up from $150 and $25 respectively).

On May 5, 2014, City Council approved funding to develop an east-side alternative to the McOrmond Road Compost Depot as it was closing later that year.

In November 2014, City Council approved a four year lease agreement with Dream Asset Management Corporation for the City to develop a temporary compost depot near Highway 5 and Zimmerman Road.

The Administration will be bringing forward a subsequent report to the April 14, 2015 Standing Policy Committee on Environment, Utilities and Corporate Services meeting, which will provide a comprehensive update to the Compost Program.

Report

New East Compost Depot – Transfer Station

The McOrmond Road Compost Depot was permanently closed to the public in late 2014 to accommodate development of the Holmwood neighbourhood. To minimize impacts to residents on the east side of the city, a new, temporary compost drop-off site is being constructed near Highway 5 and Zimmerman Road. Capital cost savings of approximately $125,000 will be realized by developing the new East Compost Depot as a transfer station and not a full composting site. Operational cost savings and efficiencies will also be achieved by hauling all materials from the East Compost Depot to the West (Highway 7) Compost Depot for processing at one location.

Proposed Changes to Hours of Operation

Use of the compost depots reached a record high with nearly 40,000 vehicle visits made by residents in 2014. Attachment 1 is a sample of the number of vehicles that accessed the compost depots on a typical day. Compost depots have always been and are proposed to continue to be free for residents.

An unforeseen impact from the success of these sites was that the 2014 operating costs came in at 50% over budget. In order to reduce contracted staffing costs and more closely align with the 2015 budget, Administration recommends a reduction to the operating hours at both depots. Site safety and traffic management considerations do not allow for a reduction in the number of site attendants required.

Three options for operating hours and anticipated staffing costs are identified below:

	Location	Days of Week	Hours of Operation	Cost
Option 1	East Depot West Depot	5 days/week (closed Mon & Tues) 7 days/week	11:00 a.m. to 5:00 p.m. 9:00 a.m. to 6:00 p.m.	$125,000
Option 2	Both Depots	7 days/week	9:00 a.m. to 6:00 p.m.	$185,000
Option 3	East Depot West Depot	7 days/week Mon to Thurs Fri, Sat, Sun	9:00 a.m. to 6:00 p.m. 9:00 a.m. to 8:00 p.m. 9:00 a.m. to 6:00 p.m.	$200,000

- Option 1 was developed based on an analysis of traffic usage patterns in 2014 and reflects the least impact to residents;

- Option 2 would provide the same level of service at both locations; and
- Option 3 reflects the same level of service that was provided in 2014.

Administration is recommending Option 1 as it is anticipated to achieve savings of $75,000 compared to last year's level of service and will more closely align to the available funds in the 2015 operating budget. Option 1 will also provide customers with two drop-off options at peak hours and accessibility for both sites on weekends.

Extended hours between 6:00 and 8:00 p.m. are not recommended as depot usage during this time is low. In 2014, the East Compost Depot did not offer extended hours whereas the West Compost Depot saw an average of only seven vehicle visits per hour. In 2013, extended hours were offered at both depots on Thursday evenings and averaged six vehicle visits per hour. Extended hours were not offered prior to 2013.

Commercial Haulers

In 2014, over 150 commercial haulers (i.e. landscaping companies) brought in 9,500 loads to both depots. This accounted for 30% of the material brought to the depots. In comparison, revenue from the sale of commercial hauler permits offset only 4% of the total operating costs.

To help reduce operating costs of hauling materials from the East Compost Depot to the West Compost Depot in 2015, Administration recommends that commercial haulers be required to deliver large loads to the West Compost Depot only and that the East Compost Depot be made available only to residents and small commercial loads (half ton trucks and small trailers). Depending on the reduction in materials received at the East Compost Depot, anticipated savings from reduced hauling costs could be up to $60,000. To reduce the impact on commercial haulers and due to operating cost reductions through the revised hours of operation, Administration does not recommend an increase to the commercial hauler permit fee at this time.

Options to the Recommendation

Options to the recommendation include allowing large commercial loads at the East Compost Depot and/or increasing the commercial hauler permit fee to help offset the costs of hauling and processing the large volume of materials brought in by commercial haulers. Accepting large loads at the East Compost Depot will result in an increase to the operating costs.

Public and/or Stakeholder Involvement

Administration is initiating discussions with the larger commercial permit holders to determine the impact of changes to where they can haul their compost. Individual negotiating could evolve to flexibility and case-by-case considerations where there is minimal expense to the City.

Communication Plan

New East Compost Depot Location and Hours of Operation:

On-site signage was posted during the last few weeks of operation in 2014 at the McOrmond Compost Depot advising visitors of the location change for Spring 2015 (Attachment 2). In addition, on-site staff provided information about the location change to visitors and it was publicised through reports and discussions at City Council.

It is expected that infrequent and new site users may not learn about the change of location until they attempt to access the former site. Signs will be posted at common access points en route to the former site, with directions to the new site and hours of operation.

With the recent overhaul of the City's website, residents can easily find hours of operation and location of both compost depots. In addition, information and updates to the composting program will be shared with residents through City social media channels, Compost Depot Service Alerts, PSAs and signage located at both sites.

Commercial Permit Holders:
Following the decision by City Council regarding the restriction to hours of operation and access to the site, Administration will inform current permit holders of the freeze on the cost of annual permits for this year, the location of the new East Compost Depot and the changes to hours of operation. Individual one-on-one conversations will continue with the larger commercial haulers to ensure a mutually beneficial solution is determined.

Financial Implications
The Compost Depot Operating Budget is partly funded through the Landfill Operating Budget. Any over-expenditure in compost operations negatively impacts the Landfill budget. The options in this report are anticipated to reduce operating costs in staffing, transfer of materials and site operations for 2015. However, given that the East Compost Depot will be in its first year of operation, the volume of material that will be received is estimated, and therefore transfer costs have been estimated. Option 1 is the most closely aligned to the 2015 approved operating budget for the Compost Depot program.

Environmental Implications
Composting operations divert approximately 20,000 tonnes of organic material from the landfill every year. This equates to a reduction of 4,600 tonnes of CO_2e annually, extends the life of the Landfill, and provides a nutrient-rich product that can be used in City parks and community gardens.

Other Considerations/Implications
There are no policy, privacy or CPTED implications or considerations.

Due Date for Follow-up and/or Project Completion
A follow-up report is not required.

Public Notice

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

Attachments

1. Traffic Usage Data 2014
2. City Compost Sign

Report Approval

Written by:	Michelle Jelinski, Environmental Operations Manager
Reviewed by:	Pat Hyde, Director of Public Works
Approved by:	Jeff Jorgenson, General Manager, Transportation & Utilities Department

EUCS MJ - 2015 Compost Depot Operations

Vehicle Visits by Day and Hour

East Compost Depot
2014 Data

Hour		Mon	Tues	Wed	Thurs	Fri	Sat	Sun	Average
9:00		10	12	11	12	12	15	11	12
10:00		12	13	14	13	13	18	14	14
11:00		14	14	14	15	16	22	19	16
12:00		13	14	13	15	14	25	20	16
1:00		14	18	18	15	16	28	23	19
2:00		16	19	17	16	19	29	24	20
3:00		17	20	20	18	15	34	23	21
4:00		15	18	17	15	14	25	19	18
5:00		10	14	12	11	9	12	9	11
Total		**121**	**142**	**136**	**130**	**128**	**208**	**162**	

Vehicle Visits by Hour

West Compost Depot
2014 Data

Hour	# of vehicle visits
9:00	25
10:00	27
11:00	33
12:00	33
1:00	36
2:00	38
3:00	38
4:00	33
5:00	21
6:00	7
7:00	6

COMPOST DEPOT SIGNAGE

2015 Composting Programs

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

That consultations with Green Cart program subscribers and the public assess support for changing the level of service provided by the existing seasonal program to include food waste.

Topic and Purpose
This report provides information on options for expanding composting education, incentives, and subscription food waste services with recommended enhancements to composting programs that the Administration could pursue beginning in 2015.

Report Highlights
1. Current City of Saskatoon (City) composting programs include education and incentives similar to those offered in other communities. Expanding these efforts may lead to an increase in composting in the community.
2. Subscription food waste program options have been identified. Public consultations will determine the level of support in the community for including food waste in the Green Cart collection program.
3. Backyard composting is a cost-effective method of reducing waste. Most communities promote home composting, while also providing curbside services to achieve efficient and larger-scale waste diversion.
4. The benefits of placing additional compostable waste in the landfill to support the Landfill Gas Collection System do not outweigh the costs associated with the use of finite landfill airspace.

Strategic Goals
The initiatives discussed in this report support the Strategic Goal of Environmental Leadership. Composting programs respond directly to the four-year priorities to promote and facilitate city-wide composting and recycling and eliminate the need for a new landfill by diverting waste for re-use. They also support the 10 year strategies to improve the quality and reduce the quantity of storm water run-off going to the river, reduce greenhouse gas (GHG) emissions, and address soil-quality issues on City-owned properties.

Background
On October 14, 2014, after receiving a report describing options to expand composting programs, the Standing Policy Committee on Environment, Utilities and Corporate Services directed:

> "That the matter be referred to the Administration for further exploration and report back to the Standing Policy Committee on Environment, Utilities and Corporate Services."

Committee members specifically asked for additional information on the costs of subscription food waste collection, education and incentive options to increase participation in composting programs, and the Landfill Gas Collection System. Future reports will address questions raised regarding the potential to treat garbage collection and management as a utility, and the effectiveness of landfill bans to encourage waste diversion.

Report

Status of Composting in Saskatoon

The City provides a number of composting programs and services to residents ranging from compost bin rebates to optional curbside collection of yard-waste. Current City composting programs are described in detail in Attachment 1.

Financial Implications

$30,000 is currently spent annually on composting education and incentives as follows:

- $20 rebates toward the purchase of backyard compost bins ($4,500)
- Training program on home composting ($5,000)
- Educational resources, outreach and promotion of composting ($10,500)
- Membership with the Saskatchewan Waste Reduction Council ($10,000)

The seasonal Green Cart yard-waste collection service for subscribers has a current annual cost of $320,000. Seasonal subscriptions of $55 contribute toward the costs of delivering this service.

Existing seasonal drop-off compost depots have an operating cost of $775,000. Compost depots are free to residents.

Opportunities to Expand Composting Education and Incentives

Home composting has been found to be an efficient method for diverting organics from landfills. The Administration reviewed the composting programs of numerous Canadian communities to identify opportunities to encourage more composting in Saskatoon.

Financial Implications

The City provides a similar range of education and incentives to what is offered in other municipalities; however, the Administration has identified that there is an opportunity to expand current education and incentive programs by $180,000 in 2015 based on the ideas described in Attachment 2.

Opportunities to Introduce a Subscription Food Waste Collection Program

A subscription program allows residents to voluntarily participate in a food waste collection program for a monthly fee. The Administration surveyed 30 Canadian municipalities with populations greater than 150,000 to identify subscription food waste program options, learning that Saskatoon, Regina, and London, Ontario are the only three centres not providing a city-wide service. Saskatoon is the only community with a subscription program.

The Ministry of Environment has approved composting of food waste at the City's existing Compost Depots for up to 8,000 subscribers.

Options for diverting food waste through a subscription program have been identified and include:

- adding food waste to the existing seasonal Green Cart program;
- expanding the Green Cart program into a weekly year-round service that includes food waste; or
- introducing a separate food waste program.

The Administration recommends consulting with existing seasonal Green Cart program subscribers and the general public on these three options.

Landfill Gas Collection System

As existing organic waste slowly decomposes within the mound of the Landfill, gases are generated and captured for use in the Landfill Gas Power Generation Project. The landfill gas system draws from the 5 million tonnes of waste already in place at the Saskatoon Landfill to generate electricity for sale to SaskPower. Revenues are projected at $1.3 million each year.

As of 2010, each cubic meter of airspace at the Landfill has a value of $90. Based on the last characterization of garbage hauled to the Saskatoon landfill, organic material delivered from households is utilizing approximately $3 million in airspace each year, a cost that is greater than the value of the electricity that could be sold by continuing to landfill these materials.

The Landfill Gas Collection System has been installed on approximately one-third of the Landfill mound and captures 70% of greenhouse gas emissions generated in that area. Diverting organics for composting results in a 100% reduction in GHGs.

Public and/or Stakeholder Involvement

Consultations with the public and existing Green Cart subscribers will be conducted through market research, such as surveys, to assess current composting program effectiveness, interest and level of awareness in composting, and introduce options for including food waste in the Green Cart program (Attachment 3).

The Saskatchewan Waste Reduction Council (SWRC) is a key partner in many of the initiatives identified in this report. SWRC have been consulted and support the recommendations as outlined. Preliminary engagement with garden centres also preceded completion of this report.

Further engagement with businesses, community associations, and community gardens could be conducted to improve outreach for existing compost education, programs, incentives and services. Results of this research could inform the foundation of a 3-year communications strategy to increase awareness of how to compost and the benefits of composting.

Communication Plan

Communication efforts will continue to focus on increasing composting awareness as well as promoting existing services and expanded education and incentive programs. Communication tactics will include hands-on small-group workshops, presentations, composting displays, website content, simple infographics (i.e. illustrating the story of waste), social media, news media, informational brochures, print and online ads, frequently asked questions (Attachment 4) and educational displays at various festivals and events throughout our community.

Environmental Implications

A subscription food waste program could be expected to divert an additional 1,000 tonnes from the landfill each year, or 1.5% of the total residential waste, and reduce up to 230 tonnes of GHG annually. This is equivalent to removing 45 cars from our roadways each year. Composting has a number of environmental benefits that are described in the Frequently Asked Questions (Attachment 4).

Other Considerations/Implications

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

Due Date for Follow-up and/or Project Completion

The outcomes of existing and any expanded composting programs implemented in 2015 will be included in the annual report on Integrated Waste Management prepared for City Council in April 2016.

Public Notice

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

Attachments

1. Status of Current City Composting Programs
2. Composting Education and Incentives
3. Market Research – Compost Behaviour and Awareness
4. Frequently Asked Questions

Report Approval

Written by:	Amber Jones, Education and Environmental Performance Manager Joshua Quintal, Project Engineer Shannon Dyck, Environmental Coordinator
Reviewed by:	Brenda Wallace, Director of Environmental and Corporate Initiatives
Approved by:	Catherine Gryba, General Manager, Corporate Performance Department

Administrative Report - 2015 Composting Programs.docx

Status of Current City Composting Programs

Current City composting programs include:

- Rebates toward the purchase of backyard compost bins
- A training program on home composting
- Seasonal Green Cart yard-waste collection service for subscribers
- Seasonal drop-off composting depots for yard-waste
- Education resources and promotion of composting

Among these programs, visitation to the compost depots is the most popular with 20,750 unique visitors taking advantage of this service in 2014. This suggests 31% of all households receiving residential cart based waste services used a compost depot at least once last season.

Community awareness of composting as an important waste diversion strategy was last measured in 2012. The City of Saskatoon Environmental Awareness Survey found that 41% of respondents compost food and/or yard waste (19% of these indicated that they used the City's compost depots). These results suggest there remains an opportunity to broaden awareness of composting. The survey will be repeated in 2015.

Compost Bin Rebates

Since 2005, the City of Saskatoon has encouraged backyard composting by offering a limited number of rebates to Saskatoon residents who purchase a compost bin (or rain barrel) from a Saskatoon retailer. Between 2005 and 2013, 187 $10 rebates were awarded. In 2014, the rebate was increased to $20 and 60 compost bin and 64 rain barrel rebate forms were awarded. With more promotion and a larger rebate amount, it is expected that more residents would access this incentive.

Saskatoon Land has also been providing each new homeowner in Evergreen and Kensington a coupon for one free compost bin. Program participation has been low, as only 7.7% of residents have claimed and redeemed their coupons. Information about the incentive is included in lot packages on the Saskatoon Land website, and has also been advertised through mail outs and notices hung on the doors of each home.

Compost bin rebates ($20) and coupons (for customers of Saskatoon Land) will continue to be offered in 2015.

Home Composting Training and Outreach – Master Composter Program

Research has shown that there is significant value in involving residents in training their peers how to compost. The Saskatchewan Waste Reduction Council (SWRC) started the Master Composters program in Saskatoon in 1993. Two years later, a partnership with the City of Saskatoon began and has since trained approximately 200 Master Composters. These trained volunteers have collectively provided over 2,000 volunteer hours in Saskatoon and engaged hundreds of residents a year through tradeshows,

public presentations and home visits. In 2014, the SWRC trained 16 new Master Composters.

Last year, home visits were introduced into the Master Composter program to help residents seeking advice on how to set up a new home composting system or improve an existing one. Home visits took on average 15-45 minutes and the service was available to both new and experienced composters. This new service had minimal promotions and only 10 home visits were requested. Increased awareness of the program may encourage more residents to access the service.

In 2015, the Master Composter program will include:

- Training 15 new Master Composters. Residents who provide a minimum of 12 volunteer hours (e.g. assisting and educating others) in Saskatoon within the first year of completing their training will receive reimbursement for the cost of the training.
- Providing a free 3 hour workshop during the University of Saskatchewan's 'Hort Week' (July 4 to 10, 2015) to engage new and seasoned gardeners in composting.
- Revealing the results of the year-long research project, 'Dishing the Dirt', which will help residents choose which style of compost bin will meet their needs.
- Conducting 15 free community events, presentations, or workshops presented by a Master Composter.
- Setting up composting displays at home and garden centres.
- Continuing the home visit service.

Green Cart (Leaves and Grass) Collection Program

The Green Cart program has operated since 2004 as a subscription-based program. In 2014 it was expanded to service 3,918 households (up from 2,744 in 2013), representing 6% of households receiving blue/black cart waste service.

Service includes bi-weekly pickup of unbagged leaves, grass clippings, and non-woody yard vegetation. The program runs from the beginning of May to the beginning of November with a fee of $55 for the season.

In 2014 over 1,500 tonnes of material was collected and diverted from the landfill; an increase of 700 tonnes over 2013.

Compost Depots

Residents are encouraged to take their leaves, grass, sod, topsoil, and non-elm branches, stumps and tree trimmings to the City's compost depots free of charge. Today, residents are delivering approximately 13,500 tonnes of yard-waste to the depots in a year.

Since 2006, the compost depots have generated more than 16,000 cubic metres of Class A compost; this has increased landfill diversion by nearly 15% over the last seven years and saved the Saskatoon Landfill approximately 400,000 cubic metres of

airspace. By composting materials at the depots instead of taking it to the landfill, greenhouse gas emissions have been reduced by 5,000 tonnes (in carbon dioxide equivalent or CO_2e), or the equivalent of removing 1,050 passenger vehicles from our roadways.

The McOrmond Road Compost Depot is currently being decommissioned and operations will continue at a new location east of the intersection of Highways 5 and 41 (near the old Sundown Drive-in Theatre). Operations at the Highway 7 Depot will also continue.

General Compost Education

The City provides general information and resources to residents including:

- New City of Saskatoon website - Compost information resources on the website will include how to compost, how to use compost in the garden and on the lawn, the benefits of composting, etc.
- Brochures - Through a recent partnership with the University of Saskatchewan's Master Gardeners program, new educational brochures will be available: *Compost Bin* how-to guide, *Mulch and More* how-to guide, *Tips for New Gardeners* pamphlet, *Rain Barrels* how-to guide and *Pesticide-Free Gardening* pamphlet.
- Social media - Social media compost awareness campaigns will run during the spring, summer and fall months. Linkages to the Be Water Wise water conservation campaign will continue as the City encourages residents to use compost and mulch to conserve water, retain moisture in their soil, and keep their lawns and gardens healthy.
- Outreach and events – Public education, including hands-on demonstrations, will occur at tradeshows such as Seedy Saturday, Gardenscape, and the Saskatchewan Living Green Expo. A new mobile education unit will also be used at events, festivals and other venues to promote composting, recycling and other waste management techniques.
- An interactive visual representation of the 'Story of Waste' is being developed in 2015.

Composting Education and Incentives

Survey of Compost Education and Incentives in Canada

The Administration surveyed 29 communities in Canada to identify their compost education and incentive efforts. All municipalities offer some form of information or education to residents about composting.

Common strategies include:

- Website resources on how and why to compost, as well as how to use compost in your yard and garden
- Information on vermicomposting and grasscycling
- Information on troubleshooting (e.g. how to reduce odors and pests)
- 16 communities offered subsidized compost bins
- 13 communities offered compost sales or giveaways

Saskatoon has utilized all of these strategies.

Research on industry best practices demonstrate that education efforts are more effective if accompanied by personal interaction. The following strategies are utilized in some municipalities to provide an interactive experience:

- Presentations and workshops on how to compost
- 7 communities offered or supported a Master Composter program
- Home visits, Compost Hotlines, or other forms of one-on-one education

A few unique approaches were also identified including:

- Compost Demonstration Garden - composting activities demonstrated for public viewing (Richmond, Vancouver, Brampton)
- Interactive waste management education centre - interactive displays for children and adults that focus on different aspects of waste management including household hazardous waste, recycling, backyard composting and waste management facilities (Brampton)
- Green Bin in Schools program - enables schools to divert all their organic waste from the landfill through weekly curbside collection services, including free curbside green bins, classroom-sized containers, program signage, and weekly collection services (Ottawa)
- Corporate Lunch and Learns and School Hands-On presentations (Edmonton)
- Compost Coaching services - residents are encouraged to invite their friends and neighbours to a coaching session and give a “Pass it On” card to friends and family to encourage more participation. (North Shore – This unique program found that households participating in coaching sessions compost almost 100 kg more each year than unsupported households. Between 1991 and 2008, 16,208 composters were distributed to North Shore residents through the program.)
- Community Based Social Marketing approach - door-to-door education and engagement, one-on-one education to address barriers and questions, free compost

bins for residents, written commitments from and follow ups with residents, public acknowledgement to recognize the efforts of those who participated in the backyard composting program, and communications tools that established norms within neighbourhoods (Langley – Launched as a pilot, this program saw a 51% participation rate, 31% reduction in garbage, and led to an average of 5.1 kg of food scraps composted per household per week.)

Expansion of Composting Education and Incentives in 2015

A number of additional program features or expansions could be added to reach more residents. The proposed initiatives are scalable.

Recommended Initiatives – 2015	**Cost**
Expand general communication efforts to better promote existing and proposed programs and messages (could include a communications strategy, print and online ads, and digital media such as infographics and/or video)	$45,000
Increase the number of compost bin and rain barrel rebates available to residents – goal of 1000 (includes cost of rebate and SWRC administration fee)	$25,000
Increase the value of compost bin and rain barrel rebates from $20 to $35 (includes cost of rebate and SWRC administration fee)	$15,000
Increase the number of Master Composters home visits – goal of 100 (includes program coordination, volunteer honorariums, the creation of Compost Coaching 'Pass-It-On' cards, as well as a compost hotline and email to provide residents with responses to their compost inquiries within 1-2 business days)	$11,000
Set up additional composting displays and demonstrations at festivals and events – goal of 13 events (includes program attendants, coordination and venue rentals)	$22,750
Offer additional composting demonstrations to community gardens and community associations – goal of 10 events (includes volunteer honorariums and coordination)	$3,100
Deliver Master Composter training to City of Saskatoon staff (includes teaching costs, text books, and subsidized registration fees for those who complete 20 volunteer hours within one year of training)	$4,750
Engage businesses to sell more composters through coordinated sale efforts – goal of 5 events (includes sales personnel and program coordination)	$19,100
Provide free compost to Green Cart subscribers and home composters (includes compost depot attendants and loading equipment)	$17,900

Opportunities to Further Expand Composting Education and Incentives in 2016 and Beyond

In addition to maintaining the expanded or additional compost education and incentive programs started in 2015, administration has compiled additional information on options for 2016 or beyond.

Community Association compost pilot program
Some Local Area Plans have identified composting as a recommendation. Administration could engage with these Community Associations to see if any opportunities exist to work on a neighbourhood-scale composting program(s) / pilot(s).

The pilot would be developed in partnership with community members and could include a Community Based Social Marketing program, curbside collections pilot, home composting pilot, community gardening program, or other type of program. Techniques to increase participation and resident engagement would be determined.

Demonstration garden
A Compost Demonstration Garden could be created to showcase how to compost, how to use finished compost, and the benefits of compost. The garden could also include water conservation and pesticide-free gardening techniques, native plants, and local food production to demonstrate how gardens can be beautiful, healthy and productive.

The garden could act as an educational site for school children, new and experienced gardeners, and the community at large. Education could be provided in the way of signage and tours. Yearly maintenance would be required.

Education Centre
A permanent set of educational displays focused on integrated waste management could be created with interactivity as a key focus. The Rolling Education Unit provides an example of such displays that could be used at events. Loraas has also created an education room at their Material Recovery Facility. A more permanent and comprehensive set of interactive displays could be developed and placed in civic or leased space, or booked as a ‘show’ or ‘exhibit’ in facilities like the Children’s Discovery Museum.

Green Cart collection pilot program for schools
Before the City of Saskatoon pursues a pilot scale composting program with schools, a waste characterization study would be required to:

- determine the types and volume of material generated;
- verify that anticipated quantities are manageable;
- verify that the end product is of high quality; and
- determine that a business model exists that demonstrates a viable program for collections, processing and sales.

If it is determined that a school green cart collection program is feasible, an initial one-year pilot could be rolled out to four schools before eventually reaching the 100+ public and Catholic schools in Saskatoon.

A school program would also require proper management at the producer end (the students and teachers) and would therefore need to be tied in with an education component that ensures high participation rates and a strong desire to put the correct materials in the bin(s). Ongoing education could include in-class demonstrations and education, effective signage and inside bins, teacher training, and ties to the curriculum. Education could also extend beyond the school property and engage members of the community as well.

Market Research - Compost Behaviour and Awareness

Composting Awareness, Attitudes and Behaviours – Pre and Post Season
The City of Saskatoon will conduct pre and post compost-season research that assesses residents understanding of composting and composting behaviours.

The research will focus on two target audiences:

- residents who do not currently compost
- residents who participate in some form(s) of composting

The findings from the pre compost-season research will function as a baseline assessment; a post compost-season assessment will be conducted to see how residents' attitudes and behaviours change over time. Post season research will also help assess the success of the City of Saskatoon's composting education and services, and provide measurable data that shows whether there has been an increase in composting and composting awareness.

Specifically, the pre and post surveys should determine:

- How many residents currently compost;
- Residents' current composting behaviours (e.g. how do they compost, what materials do they compost, why do they/don't they compost, etc.);
- How many residents are accessing the City of Saskatoon's composting services and their level of satisfaction with these programs (e.g. Green Cart collection, compost depots, compost bin rebates, etc.);
- Residents' level of knowledge regarding what compost(ing) is, how to compost, and how to use compost;
- The challenges and barriers to composting that residents face; and
- What residents would like the future of composting to look like in Saskatoon, including their opinions on a Green Cart collection service.

Composting Awareness, Attitudes and Behaviours – Green Cart Subscribers
A separate assessment of Green Cart subscribers will be conducted. The target audience is residents who subscribed to the Green Cart program in 2014 (and potentially new 2015 subscribers to understand their expectations of the program).

The results will provide information on:

- Participation (e.g. how often they place their cart out);
- Level of satisfaction with the service (e.g. collections, cart capacity, cost, accepted materials, etc.);
- Type and quantity of materials (e.g. what materials do they put in their cart, what materials do they *want* to put in their cart, what do they do with organic material (like food) that are currently not accepted in their cart);
- Subscribers' yard "profile" (e.g. their behaviours and level of awareness on composting, gardening, etc.); and
- Attitudes toward putting food waste in their green cart.

Frequently Asked Questions

What are the benefits of compost?
Adding compost to soil in lawns, gardens, and other landscaping improves the ability of the soil to retain moisture, resist erosion, retain nutrients, and optimize fertility for plants to help with drought resistance. Studies have also found that compost can suppress weed growth and the development of diseases. Use of compost in landscaping may also allow for reduced use of chemical fertilizers and pesticides, which rely on greenhouse gas producing fossil fuels for production.

Why is the City promoting home composting?
Backyard composting is ultimately the most financially, environmentally and socially responsible choice for residents and municipalities alike. Backyard composting avoids the cost of transporting waste to a centralized facility which eliminates the cost for collections, the cost for processing, the related greenhouse emissions, and the additional traffic from collections vehicles.

Promoting home composting has value to the municipality. Studies have be conducted to measure the value of backyard composting and estimate the payback period for compost bin rebates to be less than 3 years and the annual cost associated with promoting and supporting home composting can be as low as one-tenth the cost of regular garbage collections.

Home composting also generates value to the participant. A resident can create up to one yard of compost per year (for free) through home composting. This has a retail value of approximately $150 if the resident makes use of this valuable resource in their own landscaping.

How much waste can be diverted through home composting and how does that compare to a city-wide collections program?
Backyard composting has not been shown to significantly increase waste diversion rates on a community scale, as only a relatively small number of people actually participate in home composting. Even successful home composting programs are commonly partnered with curbside collection programs. In a survey of 30 Canadian cities having a population greater than 150,000, all but Regina and Saskatoon provide city-wide curbside collections to transfer compostables to a central composting facility in order to achieve greater waste diversion. These same cities offer education and programs to encourage home composting.

I've been putting food waste in my black garbage cart for years. Why should I participate in a composting program for food waste in Saskatoon? Doesn't this material just decompose at the landfill?
Each Saskatonian generates 252 kilograms of waste each year, with approximately 100 kilograms of this being compostable. This means more than one-third of the space in your black garbage cart could be freed up if compostable waste went somewhere else.

On a community scale, approximately 64,000 tonnes of garbage is delivered from black carts to the Landfill each year. 25,000 tonnes of this material could have been turned into high-quality compost rather than using valuable landfill space. Organic (compostable) waste such as leaves, grass, and food scraps break down in the landfill over time. However, because the waste is buried, it breaks down without the presence of oxygen in a process that releases methane gas. Methane gas (also referred to as landfill gas) is a greenhouse gas that is 21 times more potent than carbon dioxide.

With food waste out of black garbage carts, there is less need for frequent, expensive garbage collection.

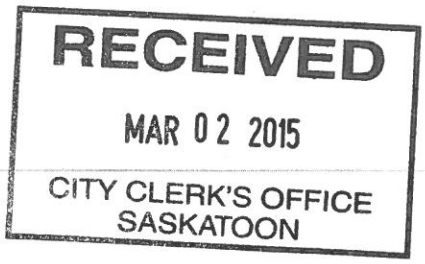
If I choose to backyard compost, will there be odours?
Following a few simple steps can ensure backyard composts don't smell. Ensuring the pile receives oxygen (by stirring it frequently), adding a ratio of 3 parts "browns" (dried plant material) to 2 parts "greens" (kitchen scraps), and avoiding material such as milk and oil products, meat, and pet waste can help keep compost smelling as it should – earthy!

What is compost generated through the City's compost programs used for?
Compost from our compost depots has been used to keep Saskatoon parks and community gardens healthy and beautiful. As more compost is generated, more uses and opportunities to sell the material become possible.

Where can I find out more information about composting?
Check out the City's website at Saskatoon.ca, follow us on Twitter and Facebook and follow the news media for information on composting.

7830-5

Subject: FW: Request to Speak - SPC EU&CS



From: Brian Sawatzky [mailto:briancfi@sasktel.net]
Sent: Thursday, February 26, 2015 2:53 PM
To: Sackmann, Debby (Clerks)
Cc: 'Angie Bugg'
Subject: RE: Request to Speak - SPC EU&CS

Hi Debby Sackmann -- I am requesting to speak to the SPC on EU&CS Mon. Mar 9. (2pm). We wish to make comment on City composting plans and to inform the SPC on our change of focus for 2015(and beyond) towards Greenhouse Gas reduction. We have expertise on SEAC re GHGs and plan to help the City reduce these dangerous gases.

Thanks

Brian Sawatzky, SEAC member

To: Administration and Finance Committee
From: Environmental Advisory Committee
Date: May 20, 2014
Re: Organics Program

At the April 10th, 2014 meeting of the Saskatoon Environmental Advisory Committee (SEAC), Brenda Wallace, Director of Environmental and Corporate Initiatives, discussed her department's future plans for organic waste diversion. She indicated that her department will be presenting a report to City Council on options for new organic waste diversion initiatives in the near future.

Subsequent to Ms. Wallace's presentation, the SEAC unanimously passed the following motion: that a letter be sent to Administration and Finance Committee "advising that the Saskatoon Environmental Advisory Committee supports the City exploring a city-wide organics diversion program." The SEAC also requested that City's Administration "provide a power point presentation on the preliminary results of the work completed regarding the city-wide organics diversion program at the June 12, 2014 Saskatoon Environmental Advisory Committee meeting."

Having established a paper and plastics recycling program for all households in Saskatoon, we believe that the next logical step in waste management would be to enhance municipal programs aimed at composting organic waste such as leaves, branches, grass clippings, and kitchen waste. Such organic waste diversion should take the form of the promotion of backyard/on-site composting as well as enhancing the collection of organic waste to be composted at a central site.

We would like to note that several Canadian cities have recently created organic waste diversion programs that are administered by municipal government. These cities range from large metropolitan areas like Hamilton, Toronto, and Ottawa to smaller cities like Nanaimo and Guelph. For the most part, organic household waste in these cities is collected curbside in 'green bins' or within common bins in multi-dweller units and composted to make fertilizer that is sold at a profit.

The environmental benefits of improving composting in Saskatoon are potentially massive. According to the City of Saskatoon's 2012 Waste Characterization Study, the typical waste of a Saskatoon residential household is 40% organic (food and yard waste); 37% recyclable paper, plastics, glass, beverage containers, and metal; 9% tissue paper and diapers; and 14% other (fabric, textiles, painted wood, hazardous waste, etc.).[1] The combination of our current paper and plastics recycling program with an aggressive organic waste diversion program would mean that the average Saskatoon household would have the potential to reduce landfill waste by nearly 80% more than when the current City

[1] City of Saskatoon, Environmental Services Branch, *Integrated Waste Management Annual Report 2012*, page 17.

Council began its mandate in 2012.

Why is reducing the amount of organic waste going into the city's landfill important? We would argue that landfilling organic waste produces two environmental problems for Saskatoon.

First, when organics are exposed to water in landfills, the liquid trickles down through the pile picking up contaminants along the way. As recent concerns over this leachate seeping into our city's river illustrate, reducing our landfilled organic waste lowers the risk of groundwater contamination.

Second, Saskatoon's landfill is a major source of greenhouse gas emissions. Saskatoon set an ambitious goal of reducing greenhouse gas emissions by 10% below 1990 levels by 2013 for the City's corporate operations[2] and Saskatoon will be called upon to do more as the provincial government devises its greenhouse gas reduction plan in the near future. Burying organic waste in landfills means that it decays without oxygen, thereby producing methane, which is a very potent greenhouse gas. Saskatoon should be doing its part to help Canada and Saskatchewan meet their goals in reducing greenhouse gas emissions. The right combination of organics (food waste and yard waste) along with frequent turning and aeration will reduce our city's methane production.

Environmental benefits are not the only reason to adopt enhanced organic waste collection program. There are compelling economic reasons.

Building a new landfill is extremely expensive and controversial as well as potentially harmful for the environment. We understand that Saskatoon's landfill has about 40 years of capacity left at our current waste diversion rates but our city's population is growing rapidly. An organic waste collection program would mean that we could continue to use our current landfill long into the future. In fact, our goal should be to attain an appropriate rate of waste reduction and waste diversion in Saskatoon so that we never have to build another landfill.

There are also other economic benefits that are generated through organic waste collection and composting programs. The Canadian Federation of Municipalities estimates that composting creates seven jobs compared to just one job that is created through landfilling.[3] Further, municipal revenue can be created by selling the compost meaning that organic waste collection programs help pay for themselves.

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2 City of Saskatoon, *Energy and Greenhouse Gas Management Plan*, page i.

3 Federation of Canadian Municipalities, Green Municipal Fund, *Getting to 50% and Beyond: Waste Diversion Success Stories from Canadian Municipalities*, page 1.

Finally, a recent report by the Institute of Certified Management Consultants entitled *The Role of Urban Communities in Sustaining Saskatchewan's Growth* argued that our province's future economic growth depends on the ability of its major cities to attract skilled and educated workers through improving the "sustainability and appeal of their urban environment"[4] (page 43). Being within the first wave of Canadian cities to adopt aggressive organic waste collection initiatives will build Saskatoon's brand as a city on the leading edge of environmentally sustainable urban living.

We are competing with other cities for the types of skilled workers and young professionals that drive economic growth. These skilled workers, or the 'creative class' to use Richard Florida's term[5], are used to living in cities that have composting programs. The creative class wants cultural amenities but they also want to live in an environmentally sustainable fashion. Improved organic waste collection would ensure that these types of workers and their companies are attracted to our city because we provide them with the opportunity to reduce their environmental footprint.

In closing, we believe that improved organic waste diversion and composting would be healthy for our city's environment, save money in the long-term, promote economic growth, and improve our quality of life.

As such, we would urge Administration and Finance Committee to closely examine the report from the Environmental and Corporate Initiatives Branch and to seriously consider ways to improve Saskatoon's organic waste diversion both in terms of enhancing curbside collection and promoting on-site composting. Increased on-site composting means fewer emissions from collection trucks and processing facilities and reduced costs related to transportation, processing, and marketing of finished compost. Ultimately, composting is best if done at the point of generation, but it is also very important to have curbside collection available for those who are not willing or able to compost at their residence. Both options are important to consider as we move forward in developing better organic waste diversion and composting programs for our city.

Sincerely,

Dr. Michael Hill, Chair
Saskatoon Environmental Advisory Committee

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4 Institute of Certified Management Consultants of Saskatchewan, *The Role of Urban Communities in Sustaining Saskatchewan's Growth*, 43.

5 Richard Florida, *The Rise of the Creative Class -- Revisited: 10th Anniversary Edition*, New York: Basic Books, 2012.

Award and Price Cap Approval for Short Service Connection Replacement Contracts 2015

Recommendation:

1. That the proposal submitted by Brunner's Construction Ltd. for the Emergency Connection Rehabilitation contract, for work to be done in 2015, at a total estimated cost of $1,851,790.50 (including G.S.T. and P.S.T.), be accepted;
2. That the proposal submitted by Brunner's Construction Ltd. for the Homeowner Request Connection Rehabilitation contract, for work to be done in 2015, at a total estimated cost of $1,071,135.45 (including G.S.T. and P.S.T.), be accepted;
3. That the cap on the residential property owners' portion of service connection replacements be increased from $2,590 to $2,900, plus applicable taxes, effective April 1, 2015; and
4. That the City Solicitor be requested to prepare the appropriate agreement and that His Worship the Mayor and the City Clerk be authorized to execute the agreement under the Corporate Seal.

Topic and Purpose

This report is to obtain City Council's approval to award to Brunner's Construction Ltd. the Emergency Connection Rehabilitation contract and the Homeowner Request Connection Rehabilitation contract, for work to be done in 2015, as well as for approval to increase the price cap on the residential property owners' portion of the service connection replacements. With each contract, the City has the option to renew with the same contractor for up to two additional one-year periods. Contract costs for each renewal period will be negotiated by the contractor and the City at the time of renewal.

Report Highlights

1. The City is responsible for service connections from the main lines to the property line and homeowners are responsible for the portion from the property line to the building. The City has made it mandatory to replace failed/disturbed lead service connections.
2. A cost sharing program is offered to homeowners who qualify; the City pays 60% of the replacement costs, and the homeowner pays 40%, with a cap on the homeowner's costs.
3. 2015 contract prices for water and sewer connection replacements require an increase to the cap on the homeowner portion of the replacement costs.
4. Each contract includes a renewal option for up to two additional one-year periods.
5. Approximately 200 failed water and sewer connections will be replaced under the Emergency Connection Rehabilitation contract and approximately 100 water and sewer connections will be replaced under the Homeowner Request Connection Rehabilitation contract.

Strategic Goal

The recommendations in this report support the Strategic Goal of Asset and Financial Sustainability as it will help to reduce the gap in funding required for rehabilitating and maintaining the City's aging infrastructure. It will also help to ensure failing infrastructure and service connections made of materials no longer in compliance with the specifications are being replaced in a manner that is cost effective to both the homeowner and the City.

Background

Policy C07-008 – Emergency Sanitary Sewer Maintenance Service, adopted in 1982, and Bylaw No. 8880, The Private Sewer and Water Service Connection Bylaw approved by City Council in 2010, govern the construction, installation, replacement and maintenance of service connections.

The Water and Sewer Service Connection Rehabilitation on Private Property - Disturbance of Lead Water Service Connections report was adopted by City Council, at its meeting held on April 12, 2010.

The City currently offers a cost sharing program for property owners with failed lead water lines or collapsed sewer lines. Attachment 1 provides information pertaining to the breakdown of these costs and the current program in place.

Report

Proposed Increase to Cap for 2015

The cap for homeowner costs has been set at 40% of the contract price for a full connection replacement. The 2015 contract price for a full connection replacement is $7,247 (not including GST). As such, the homeowner's cost for a full replacement is $2,900 and the City's cost is $4,350. This requires an increase in the homeowner cap from the 2014 limit of $2,590. Approving the cap increase to $2,900 ensures that the City is able to replace a greater number of failed connections under each contract. Details of approved cap increases for previous years are included in Attachment 1 (Table 1).

Request for Proposals were tendered for the below two contracts. Brunner's Construction Ltd. submitted the only proposals received in response to each contract. The Administration reviewed the proposals and determined the proposals to be acceptable:

- Emergency Connection Rehabilitation: Total cost of $1,851,790.50 (including G.S.T. and P.S.T.).
- Homeowner Request Connection Rehabilitation: Total cost of $1,071,135.45 (including G.S.T. and P.S.T.).

Contract Renewal Periods

Each contract has the option to renew for up to two additional one-year periods as outlined in the attachment. This strategy was developed in consultation with Purchasing, with the intention of attracting bidders interested in a potential multiple-year contract and reducing the cost of procurement. Future prices were not asked for in the

proposal. The Administration will negotiate prices for future years with Brunner's and make a recommendation to City Council depending on how future years' prices compare with industry trends.

Options to the Recommendation

Options to the recommendation would be as follows:

- Not to increase the cap. This would increase the cost to the City of each connection replacement and reduce the amount of homeowner requested replacements that could be completed. The Administration does not recommend this option.
- Not to accept the proposal from Brunner's Construction Ltd. for the Emergency Connection Rehabilitation contract. This option is not recommended, as the proposal is deemed to be acceptable, and it would result in failed water and/or sewer connections not getting repaired.
- Not to accept the proposal from Brunner's Construction Ltd. for the Homeowner Request Rehabilitation contract. This option is not recommended as the proposal is deemed to be acceptable, and it would result in not being able to complete the homeowner requested lead line replacements.

Communication Plan

Information explaining the Emergency Connection Rehabilitation and Homeowner Requests for Connection Rehabilitation programs and associated costs will be provided to the homeowners whose residences are scheduled for rehabilitation in 2015.

Financial Implications

Emergency Connection Rehabilitation

Details of the proposal from Brunner's Construction Ltd. are as follows:

Base Fees	$1,763,610.00
G.S.T.	88,180.50
Total Fees	$1,851,790.50
Less Home Owner Costs (External Funding)	(513,219.00)
Less G.S.T. Rebate	(63,741.50)
Net Cost to the City	$1,274,830.00

There is sufficient funding allocated for this program within approved Capital Project #1615 – Lead Connections and Capital Project #1616 – Sanitary Connections.

Homeowner Requests for Connection Rehabilitation

Details of the proposal from Brunner's Construction Ltd. are as follows:

Base Fees	$1,020,129.00
G.S.T.	51,006.45
Total Fees	$1,071,135.45
Less Home Owner Costs (External Funding)	(300,486.90)
Less G.S.T. Rebate	(36,697.55)
Net Cost to the City	$ 733,951.00

There is sufficient funding for this program within the approved Capital Project #1615 – Water Distribution Preservation Program.

Environmental Implications

The Emergency Connection Rehabilitation & Homeowner Request Connection Rehabilitation contract recommendations will result in the consumption of natural resources and the generation of greenhouse gas emissions once construction proceeds. Construction activities will require an estimated 13,965 L of diesel fuel, contributing to estimated greenhouse gas emissions of 38 tonnes CO_2e.

Other Considerations/Implications

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

Due Date for Follow-up and/or Project Completion

A follow up informational report will be submitted to City Council at the beginning of each renewal period to provide information on the Net Cost to the City for each renewal as well as any cap increases to the Homeowner portion of the replacement cost.

Public Notice

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

Attachment

1. Short Service Connection Replacement Contracts

Report Approval

Written by:	Caleb Ripley, Project Engineer, Construction & Design
Reviewed by:	Sohrab Khan, Senior Project Management Engineer, Construction & Design
Reviewed by:	Matt Jurkiewicz, A/Director of Construction & Design
Approved by:	Jeff Jorgenson, General Manager, Transportation & Utilities Department

EUCS CR – Award and Cap Approval – Short Service Connection Replacement Contracts 2015.docx

Short Service Connection Replacement Contracts

Background

Bylaw No. 8880, The Private Sewer and Water Service Connection Bylaw governs the construction, installation, replacement and maintenance of service connections. This Bylaw states that when a service connection fails on private property, the property owner is responsible for replacement costs and when the connection fails on City property the City is responsible for replacement costs.

Bylaw No. 8880 states that when the lines of an existing service connection located on City right-of-way fail, it is the City's responsibility to repair or replace the portion of the service connection from the main line to the boundary of the property line. Conversely, when the lines of an existing service connection located on a property owner's parcel of land fail, it is the property owner's responsibility to repair or replace the portion of the service connection from their building to the property line.

It is the City's practice to offer a cost-sharing program to homeowner's for the following circumstances:

1. When the lines of an existing service connection located on a property owner's parcel of land fail, and the failed service connection is made of materials no longer in compliance with the specifications, and the property owner chooses to replace their portion of the service connection;
2. When an existing service connection is made of materials no longer in compliance with the specifications, and the main lines located on City right-of-way fail or the City is upgrading the main lines of the system, and the owner of the parcel of land adjacent to the failure or work on the main lines agrees to replace their portion of the service connection from the building to the property line at the same time.

The cost sharing program that the City offers to homeowners is that the City pays 60% of the replacement costs, while the homeowner pays 40%, with a cap on the homeowner costs. The cap on homeowner costs has increased annually due to increasing contract costs. The homeowner costs were originally established in 2009, at a value of $1,984. In 2010, 2011, 2013, and 2014 the cap was increased to $2,112, $2,250, $2,540, and $2,590 respectively. Under the service connection rehabilitation program, homeowners can choose to pay their portion of the costs either directly to the contractor, or alternatively have the costs added to their property taxes.

It should be noted that the City also pays for administration and replacement costs on the City's portion of the replacement, including asphalt patching, sidewalk replacement and landscaping.

Proposed Increase to Cap for 2015

As was done in the 2014 contracts, the 2015 Request for Proposals (RFPs) include an item for full replacement (the City's portion as well as the homeowner's portion) in order

to continue to allow homeowners to participate in the program and replace their portion of the connection at a reduced price.

On January 12, 2015, RFPs for the 2015 Emergency Connection Rehabilitation and the 2015 Homeowner Request Connection Rehabilitation were received. The total cost for service connection replacements, as submitted by the winning bidder is $7,247, (not including GST). As such, the City's portion of replacements costs for 2015 is calculated to be $4,350 and the homeowner's portion $2,900. This requires an increase in the homeowner portion of the costs from $2,590 in 2014 to $2,900 in 2015.

The proposed 12% increase in the homeowner cap offsets the small cap increase from 2013 to 2014 of 2%. Increasing the homeowner cap each year to 40% of the contract cost of replacement ensures that the City is able to replace a greater number of service connections that fail, leak, or collapse under each replacement contract. Table 1 shows the annual increase of the homeowner cap since 2009.

Table 1: Homeowner Cap Increase

Year	Owner Cap	City	Total	% change from previous year
2009	$ 1,984	$ 2,976	$ 4,960	-
2010	$ 2,112	$ 3,168	$ 5,280	6%
2011	$ 2,250	$ 3,375	$ 5,625	7%
2013	$ 2,540	$ 3,810	$ 6,350	13%
2014	$ 2,590	$ 3,885	$ 6,475	2%
2015	$ 2,900	$ 4,350	$ 7,250	12%

The Administration is recommending that the cap of $2,590 for the residential property owners' portion of service connection replacements be increased to $2,900, plus applicable taxes, effective March 1, 2015.

Emergency Connection Rehabilitation

The Emergency Connection Rehabilitation Program consists of the replacement of failed lead water lines and/or failed sewer connections. The Emergency Connection Rehabilitation contract is intended to address emergency replacements which are prioritized in such a way to ensure that connections are replaced in an acceptable timeframe.

Homeowners with failed water and/or sewer connections are eligible to participate in the City's cost sharing program if they replace their portion of the failed water and/or sewer lines when the contractor replaces the City's portion of failed connections.

On January 12, 2015, RFPs for the 2015 Emergency Connection Rehabilitation program for the period of March 1, 2015 to December 31, 2015 were opened.

One proposal was received, from Brunner's Construction Ltd. The proposal was reviewed using the following criteria, with 1 being the most important and 5 the least important:

1. Price;
2. Methodology;
3. Recent contractor experience;
4. Past performance; and
5. General quality of the proposal.

The Administration has determined the proposal from Brunner's Construction Ltd., at a total cost of $1,851,790.50 (including G.S.T. and P.S.T.) to be acceptable.

Homeowner Requests for Connection Rehabilitation

The lead replacement program consists of replacing lead water lines and sewer lines by trenchless methods. Most houses built prior to 1949 (approximately 6,000 homes in Saskatoon) have this type of connection. There are currently approximately 300 homes where the homeowners have requested their lead water line or sewer line be replaced.

The lead replacement program is limited to the City's portion of the connection only. The cost is substantially reduced when the private portion is done in conjunction with the City's portion, with the City paying 60% of the total cost and the homeowner paying 40%, to a maximum of $2,900 (proposed 2015 cap). The homeowner can either pay the contractor directly, or have their share of the costs added to their property taxes.

On December 30, 2014, RFPs for the Homeowner Requests for Connection Rehabilitation contract for the period of March 1, 2015 to October 31, 2015 were opened. The contract includes the replacement of approximately 90 full water and sewer connections and approximately 20 sewer only connections which were requested by homeowners, and may also include the replacement of lead lines, in conjunction with water main rehabilitation locations.

One proposal was received, from Brunner's Construction Ltd. The proposal was reviewed using the same criteria as the Emergency Connection Rehabilitation Program as listed above.

The Administration has determined the proposal from Brunner's Construction Ltd., at a total cost of $1,071,135.45 (including G.S.T. and P.S.T.) to be acceptable.

Contract Renewal Periods

In past years, the connection replacement contracts were tendered annually and had no option for renewal. Issuing a new RFP each year has led to service interruptions in the program due to the length of the award process. Including a renewal option in the contracts will allow Administration to more effectively execute the City's Connection Replacement Program and provide more constant and seamless service to the residential property owners who use this program.

Each contract has the option to renew for up to two additional one-year periods. Unit prices for each renewal period for each contract will be negotiated by the Administration and Brunner's Construction Ltd. and will be proportional to the total Consumer Price Index for Saskatchewan. If no unit prices can be mutually agreed upon between the Administration and Brunner's Construction Ltd., then the contracts will not be renewed and will be put out for re-tender.

Once the unit prices for the contract renewal have been mutually agreed upon by the Administration and Brunner's Construction Ltd., the cap on the residential property owner's portion of the service connection replacement cost will be adjusted to a maximum of 40% of the new contract cost of replacement.

Saskatoon Water Borrowing Reduction and Funding Reallocation

Recommendation
That the Standing Policy Committee on Environment, Utilities and Corporate Services recommend to City Council that the transfer of funds from capital and replacement reserves as indicated below, to reduce borrowing by $3,600,000 be approved:

1. $2,900,000 from the Waste Water Capital Project Reserve to the following projects:
   a) $1,600,000 for Project #1234 – WWT Odour Abatement System;
   b) $800,000 for Project #1243 – WWT Lift Stations Upgrades;
   c) $500,000 for Project #2224 – WWT Liquid Waste Haulers Station; and
2. $700,000 from the Water Replacement Reserve to Project #2557 – WTP Acadia Pump Replacement.

Topic and Purpose
This report is to obtain City Council approval to transfer reserve funding to projects to reduce borrowing required for those projects.

Report Highlights
1. Saskatoon Water has sufficient reserves to apply funding to several projects that were budgeted to be funded through borrowing or borrowing plus reserves.
2. The reduction in borrowing requirements will be $3,600,000.

Strategic Goal
This report supports the Strategic Goal of Asset and Financial Sustainability by reducing borrowing.

Background
A comprehensive review of borrowing needs for 2014 was completed and four projects were identified for which borrowing can be reduced.

Report
During a comprehensive review of identifying borrowing needs for 2014, and considering the reserve sufficiency, four projects were found which can be funded partially through reserves to reduce the borrowing requirements for previously approved utility projects. This will result in a borrowing reduction of $3,600,000. It is recommended that funds be reallocated as indicated above.

Options to the Recommendation
An option would be to borrow $3,600,000 to fund these projects which would result in a higher debt level and interest costs.

Financial Implications

There is sufficient funding within the capital and replacement reserves to fund the changes detailed in this report. These transfers will reduce Saskatoon Water borrowing requirements by $3,600,000.

Other Considerations/Implications

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

Due Date for Follow-up and/or Project Completion

The projects listed are expected to be completed by December 31, 2015, except for Project #1243 – WWT Lift Stations Upgrades which is an ongoing project.

Public Notice

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

Report Approval

Written by:	Beverly Stanley, Accounting Coordinator II, Business Administration
Reviewed by:	Reid Corbett, Director of Saskatoon Water
Approved by:	Jeff Jorgenson, General Manager, Transportation & Utilities Department

EUCS – Saskatoon Water Borrowing Reduction and Funding Reallocation.docx

Capital Project #625-29 – Feasibility Study – Sanitary River Crossing – Award of Engineering Services

Recommendation

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

1. That the proposal for engineering services, submitted by Associated Engineering (Sask) Ltd., for the feasibility study of a new sanitary sewer crossing of the South Saskatchewan River, on a time and expense basis, at an estimated cost of $93,473.52 (including GST and PST), be accepted; and
2. That the City Solicitor be requested to prepare the appropriate agreement and that His Worship the Mayor and the City Clerk be authorized to execute the agreement under the Corporate Seal.

Topic and Purpose

The purpose of this report is to request City Council approval for the award of engineering services to provide a feasibility study for a proposed new sanitary sewer crossing of the South Saskatchewan River.

Report Highlights

1. There is a need to analyze and investigate the hydraulic, geotechnical, environmental, and archeological constraints in order to develop a feasibility study for the future sanitary sewer river crossing.
2. A Request for Proposal was posted on Sasktenders asking for consulting services to conduct this investigation and provide a report summarizing and interpreting the findings.
3. Based on a systematic evaluation, the proposal from Associated Engineering (Sask) Ltd. (AE) received the highest rating.

Strategic Goals

The recommendations in this report support the Strategic Goals of Asset and Financial Sustainability and Sustainable Growth as work completed under this contract will ensure that the new sanitary sewer crossing will be properly located and sized to handle the ultimate and also intermediate sanitary flows during the build out of future northeast neighborhoods. A new sanitary river crossing would allow a direct servicing route from Saskatoon's northeast development area to the Wastewater Treatment Plant.

The recommendations also support the Strategic Goal of Environmental Leadership as this study will assess the geotechnical, environmental, and archeological conditions within the area to ensure the crossing will be situated appropriately and minimize the impact to each constraint.

Background

The proposed sanitary river crossing was identified in previous servicing investigations dating back to 1987. These previous investigations indicated a new crossing would be necessary once development moved north of the Northeast Swale. Currently, Evergreen and Aspen Ridge are building up to the southern boundary of this Swale and functional design work has begun for the next neighbourhood north of the Swale.

Report

The City is in the preliminary stages of functional design work for land north of Evergreen and Aspen Ridge within the northeast development area. As development proceeds into this area, a new sanitary crossing will be required to ensure there is adequate capacity to service future neighbourhoods.

Feasibility Study

A feasibility study of the proposed river crossing will provide valuable initial groundwork and cost estimates to assist in later phases of design. The study will provide an optimized location and orientation of the crossing by minimizing impacts to environmental and heritage sensitivities identified within the area. The study also includes analysis of the geotechnical conditions within the area to provide information on river bank slope stability and recommendations for appropriate construction methods based on the soil characteristics. Lastly, the feasibility study will provide a review of the hydraulics of the crossing to ensure the sanitary sewer will function properly through a range of flows, including early development to eventual full build-out of future University Heights and Northeast Sector neighbourhoods.

A Request for Proposal was posted on Sasktenders asking for consulting services to conduct a feasibility study of the sanitary sewer river crossing. After a systematic evaluation of six proposals, the Administration rated AE above the others.

The Administration recommends that the City enter into an Engineering Services Agreement with AE to complete a feasibility study of the proposed sanitary sewer river crossing.

Public and/or Stakeholder Involvement

Six potential stakeholders have been identified within the study area: Meewasin Valley Authority, the Ministry of Environment, the Department of Fisheries and Oceans, PR Developments, Saskatoon Land division, and Parks division. For these stakeholders, AE has proposed holding a workshop to discuss potential crossing locations along with the financial, environmental, heritage, and hydraulic implications for each option so concerns and feedback can be incorporated into the process. If deemed necessary, leadership within potentially impacted First Nations and Metis communities will also be contacted to participate in the stakeholder meeting to fulfill the Duty to Consult obligations outlined in the Government of Saskatchewan First Nation and Metis Consultation Policy Framework.

Communication Plan

For the borehole drilling portion of this study, four potential stakeholders have been identified. Affected stakeholders, including the Meewasin Valley Authority, will be contacted and consulted prior to any work commencing.

Construction notices will also be issued if boreholes are proposed within the vicinity of nearby residents. Once the drilling location is determined, further communications for the general public will be considered to keep residents informed.

Financial Implications

The proposal from AE was priced on a time and expense basis, at an estimated cost of $93,473.52 (including GST and PST). The estimated net cost to the City for engineering services would be as follows:

Base Fee	$70,329.00
Optional Boreholes	15,330.00
PST	3,531.57
GST	4,282.95
Total Fee	$93,473.52
Less GST Rebate	(4,282.95)
Net Cost to City	$89,190.57

Funding for this project has been approved under Capital Project #625-29 – Land Development – Trunk Sewers – North East Sector – EF – Sanitary River Crossing.

Environmental Implications

The completion of this project will provide important environmental baseline data to establish pre-construction conditions. All testing will be conducted according to industry standards that prevent any contamination of the test holes and site.

Other Considerations/Implications

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

Due Date for Follow-up and/or Project Completion

The final project report is due December 31, 2015.

Public Notice

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

Report Approval

Written by: Michael Beal, Design Engineer, Engineering & Planning
Reviewed by: M. Nisar Khan, Senior Design Engineer, Engineering & Planning
AJ McCannell, Manager, Engineering & Planning
Reid Corbett, Director of Saskatoon Water

Approved by: Jeff Jorgenson, General Manager, Transportation & Utilities Department

EUCS MB – Feasibility Study–Sanitary River Crossing–Award of Eng Services

Storm and Sanitary Sewer Flow Monitoring Program Expansion and Upgrade – Sole Source

Recommendation

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

1. That ISCO flow monitoring equipment be adopted as the City's Standard for storm sewer and sanitary sewer flow monitoring equipment until December 31, 2018;
2. That the Administration prepare a sole source to Avensys Solutions for the supply of ISCO flow monitoring equipment for a total cost of $86,972.55 (including GST); and
3. That Purchasing Services issue the appropriate purchase order.

Topic and Purpose

The purpose of this report is to obtain approval to purchase ISCO brand flow monitors for the upgrade and expansion of the Saskatoon Water Flow Monitoring Program.

Report Highlights

1. The purchase of 15 new monitors is required for the Flow Monitoring Program.
2. ISCO flow monitors represent 70% of the City's current inventory and have become the City's standard.
3. Avensys Solutions is the only distributor in Canada for ISCO monitors.

Strategic Goals

The recommendations in this report support the Strategic Goal of Sustainable Growth as this purchase will help facilitate informed decision making related to future storm and sanitary sewer infrastructure projects and infill developments.

The recommendations also support the Strategic Goal of Asset and Financial Sustainability as this purchase will allow more pipe flow data to be captured within the city to aid with design standard updates, reliable forecasting of preservation and system upgrade work.

Background

The Flow Monitoring Program is necessary to build and calibrate the storm and sanitary sewer models which are fundamental for the planning and design phases of future water and sewer infrastructure projects and infill developments. The current Flow Monitoring Program consists of measuring:

- Flow rate at 23 sanitary trunk locations and 10 storm trunk locations;
- Rainfall at eight locations;
- Level at six sanitary storage tank locations;

- Pressure at approximately 80 hydrant locations; and
- Water quality within the Northeast Swale.

Report

The purchase of 15 new ISCO flow monitors will be used to upgrade and expand the flow monitoring network to collect flow data in new developments. Additionally, some outdated and failing monitors will be replaced in order to ensure high quality data.

ISCO flow monitors have become the City's standard as they are compatible with the City's data management software and are currently operating at 70% of monitoring locations. The existing inventory of flow monitors began by purchasing three ISCO monitors in 2011 to assess the performance of this make and model. In 2012, ISCO brand monitors were specified and purchased through a competitive tender process. Based on exceptional past performance, additional ISCO monitors were purchased in 2013.

Continuing to use ISCO flow monitors will provide consistent data collection methods which are important for:

- Comparability within the monitoring system;
- Data quality control; and
- Efficient and cost effective equipment maintenance.

Avensys Solutions is the only distributor in Canada for ISCO monitors, as shown in Attachment 1.

Financial Implications

The quote from Avensys Solutions was priced on a per unit basis, at a total estimated cost of $86,972.55 (including GST). The estimated cost to the City for the equipment would be as follows:

Base Cost	$82,831.00
GST	4,141.55
Total Cost	$86,972.55
Less GST Rebate	(4,141.55)
Net Cost to the City	$82,831.00

Funds for this purchase are available in the 2015 Capital Budget – Project #1618 – Waste Water Trunks and Project #1621 – Storm Sewer Preservation.

Environmental Implications

Storm and Sanitary flow monitoring is essential for building and calibrating system models. These models are fundamental for cost effective planning, design, and operation of the storm and sanitary systems while considering the environmental implications in existing and new neighbourhoods.

Some examples of environmental implications include:

- Assessment of basement sewer backup and possible solutions.
- Identifying surface flooding locations and possible remediation work to reduce the impact.
- Reduction of the risk for sanitary and storm system failure and the associated environmental consequences.
- Increased accuracy for analysis and modelling of the water quality impact, following a spill into the sanitary or storm system.

Other Considerations/Implications

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

Due Date for Follow-up and/or Project Completion

The monitors are required by mid-April 2015 in order to capture the start of the rain season. Delivery time is four to six weeks from date of order.

Public Notice

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

Attachment

1. Teledyne Isco Letter Dated February 24, 2015

Report Approval

Written by:	Grant Gardner, Monitoring Technician, Engineering & Planning
Reviewed by:	Hossein Azinfar, Senior Planning Engineer, Engineering & Planning AJ McCannell, Manager, Engineering & Planning Reid Corbett, Director of Saskatoon Water
Approved by:	Jeff Jorgenson, General Manager, Transportation & Utilities Department

EUCS – Storm and Sanitary Sewer Flow Monitoring Program Expansion and Upgrade

TELEDYNE ISCO
Everywhereyoulook™

4700 Superior Street
P.O. Box 82531
Lincoln NE 68501
P: 402.464.0231 F: 402.464.0318
Toll Free: 800.228.4373
E-mail: iscoinfo@teledyne.com

February 24, 2015

To Whom It May Concern:

The Teledyne Isco International Distributor Agreement dated April 1, 2012 between Teledyne Isco and Avensys, Inc., has been assumed by Avensys Solutions until either the existing agreement expires or a new agreement is put in place between Avensys Solutions and Teledyne Isco.

A new agreement is in process and expected to be finalized before the expiration of the old agreement which is set to expire on March 31, 2015.

The new agreement will establish Avensys Solutions as the exclusive distributor in Canada for all Teledyne Isco Environmental Products, to be defined in the agreement as Samplers and Open Channel Flow Meters. Avensys Solutions will be authorized to facilitate factory warranty issues and supply service support for Teledyne Isco environmental products.

Should you have any questions about the above please do not hesitate to contact me at (724) 831-6325.

Respectfully,

Richard Skradski

Richard Skradski
Regional Sales Manager
Teledyne Isco

Source Control Programs for the Sanitary Sewer System

Recommendation
That the information be received.

Topic and Purpose
This report outlines a new approach to modernizing the Sewer Use Bylaw (Bylaw) and provides an update on the development of source control programs to support the existing and new bylaws.

Report Highlights
1. The Administration will bring forward changes to modernize the existing regulations for sewer use to focus on the quality of discharges rather than how businesses must treat their wastewater (i.e. prescribed plumbing fixtures).
2. Source control programs are common practice for communities in managing risk related to the large number and variety of users of the sanitary sewer system. Such programs are being developed to educate Saskatoon businesses on managing discharges and meeting discharge.
3. The first source control programs to be launched will target the food industry (generators of fats, oils, and grease) and businesses that generate grit.
4. A baseline inventory is currently being developed through site visits to 1,600 businesses that may pose a risk to the sanitary sewer and therefore may be impacted by the future Bylaw.

Strategic Goals
Source control programs manage corporate risks related to compliance with Federal and Provincial Environmental Regulations, support the City of Saskatoon's (City) strategic goal of Environmental Leadership. The programs also support the strategic goal of Asset and Financial Stability by ensuring that our assets are well managed and maintained.

Background
Discharges to the sanitary sewer are currently regulated by the Sewage Works Control Bylaw (Bylaw #5115), which came into effect in 1971. The current bylaw is general in nature, open to interpretation, and does not have adequate provisions for enforcement. There have been several changes to federal and provincial legislation that affect the City's wastewater system since the bylaw was formulated.

At its meeting on March 7, 2011, City Council considered a new Bylaw with an effective date of July 1, 2013. The Bylaw was to be based on the foundational principle of source control through prescribed plumbing fixtures. In March 2013, implementation of the Bylaw was postponed in order to accommodate education programs with affected businesses.

Report

New Approach to the Sewer Use Bylaw

The past approach to the new Bylaw included requirements for wastewater pre-treatment by specific businesses. Some of these standards were more stringent than the requirements of current provincial and national plumbing codes. There were concerns from businesses about the costs and benefits of implementing these changes, especially in relation to changing national regulations and industry best practices.

The proposed new approach to the Bylaw focuses on the quality of the discharge. Businesses discharging waste water containing materials of concern will be identified in a baseline inventory. Administration will, through source control programs, work with these businesses to help them comply with existing and future regulations. Additional information about the new Bylaw will be provided in an upcoming report to City Council.

Source Control Programs

Source control is a standard municipal approach to managing risk related to the large number and variety of users of the sanitary sewer system. Source control programs are intended to support the implementation of the existing and/or future Bylaw by clearly stating what is expected from businesses in managing its wastewater discharges and educating businesses on how to comply with the Bylaw. Compliance efforts will begin with education and proceed to enforcement measures when absolutely necessary.

Attachment 1 provides an overview of the source control programs under development. The first source control programs to be launched will target the food industry (generators of fats, oils, and grease) and businesses that generate grit.

Education for users of the sanitary sewer system is critical to the success of the source control management approach. Programs are used to clearly communicate the City's expectations about how to comply with the Bylaw. This approach is intended to reduce the need for enforcement to protect the environment and civic infrastructure while ensuring that source control measures do not unreasonably impact business owners.

Baseline Wastewater Discharge Inventory

Since March 2013, the Administration has created an inventory of 1,600 businesses that may be affected by the Bylaw and has been conducting site visits to ensure that the impacts to businesses are fully evaluated before the Bylaw is implemented.

Communications Plan

Information sessions for food industry businesses are scheduled for April 2015. Letters and information packages will be sent to car wash facilities and other grit-producing operations. Educational materials will be posted on the City's website.

Environmental Implications

A healthy environment is a key driver for the implementation of Source Control Programs. Education and enforcement tools will help users of the infrastructure

understand that if harmful substances are put down the drain and cannot be removed by our treatment processes, these substances end up directly in the environment.

In addition, source control is anticipated to reduce the amount of energy used in wastewater treatment, reduce maintenance and extend the life of the wastewater system, and reduce the potential for sewer backups.

Other Considerations/Implications
There are no finance, policy, privacy, or CPTED implications at this time.

Due Date for Follow-up and/or Project Completion
Environmental and Corporate Initiatives will bring another report to City Council in November 2015 recommending implementation of the new standards and procedures as outlined in this report and requesting that Council direct the Office of the City Solicitor to draft a new Sewer Use Bylaw incorporating these changes.

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

Attachment
1. Source Control Programs for Sanitary Sewer System: An Overview

Report Approval

Written by:	Twyla Yobb, Watershed Protection Manger
Reviewed by:	Brenda Wallace, Director of Environmental and Corporate Initiatives
Approved by:	Catherine Gryba, General Manager, Corporate Performance Department

Administrative Report - Source Control Programs for Sanitary Sewer System.docx

Source Control Programs for the Sanitary Sewer System: An Overview

Source control is a standard municipal approach to managing risk related to the large number and variety of users of the sanitary sewer system. The intent of source control management is to:

- Protect sanitary sewer system infrastructure from damage and reduce the need for costly maintenance;
- Protect City employees from exposure to harmful wastes;
- Protect public and private property from damage related to inappropriate discharges;
- Reduce the risk that an inappropriate or high strength discharge will upset the treatment process; and
- Reduce the risk of inadvertently releasing harmful substances into the South Saskatchewan River or onto farmland through the land-spreading of dewatered biosolids

Education of the users of the sanitary sewer system is critical to the success of the source control management approach. In order to achieve compliance, there is a need for the City to clarify, as much as possible, what substances can be discharged to the sewer, and what discharge behaviors are and are not acceptable.

Educational initiatives (source control programs) that clearly communicate these expectations help businesses understand how to comply with the new bylaw. This pro-active approach is intended to reduce the number of enforcement actions that are needed to achieve compliance.

Source control programs provide protection of the environment and civic infrastructure while also respecting the needs of businesses and ensuring that source control measures do not unreasonably impact business owners.

Limited and Prohibited Substances

The Limited and Prohibited Substances Program is the umbrella for all other source control programs. The new bylaw will contain a list of substances that cannot be discharged to the sanitary sewer (prohibited), or that can only be discharged in regulated amounts (limited).

Limits and prohibitions will be set in accordance with the national *Municipal Waste Water Effluent Strategy* that was adopted by the Canadian Council of the Ministers of the Environment (CCME) in 2009. Where there are specific problems with limited or prohibited substances, a special source control program has been developed to provide targeted education and enforcement.

Businesses that are found to discharge a substance that is limited or prohibited will be notified of non-compliance, provided with educational materials related to their specific

source control program, and given time to work with the City toward compliance with the bylaw.

Surcharge Program

The Surcharge Program is an existing program that targets larger industries that discharge high amounts of treatable waste. The City has identified four substances which, when present in high amounts, can cause trouble in the collection system, upset the treatment process, and/or greatly increase the cost of treatment.

The City levies a surcharge on those industries that discharge these substances in amounts larger than certain pre-set limits to encourage better wastewater discharge practices and to partially recover the costs of treatment and collection system maintenance.

Fats, Oils and Grease (FOG) Program

The National Plumbing Code of Canada (2005) requires installation of grease interceptors where a plumbing fixture discharges fats, oils, or grease and is located in a public kitchen, in a restaurant, or in a care or detention occupancy. Installation of grease interceptors is regulated by the Building Standards Division of the City.

The FOG Program will focus on identification of those businesses that do not have, or do not maintain their grease interceptors properly, thereby allowing excess fats, oils, and grease to discharge to the sanitary sewer system.

Grit Program

The National Plumbing Code of Canada (2005) also requires installation of interceptors where the discharge from a fixture may contain sand, grit, or similar materials. Installation of grit interceptors is also regulated by the Building Standards Division.

The Grit Program will focus on identification of those businesses who do not maintain their interceptors properly, or who do not have an appropriate interceptor installed.

Trucked Liquid Waste (TLW) Program

Businesses that haul trucked liquid waste are currently issued permits by the Saskatchewan Ministry of Environment. There are currently two locations where the City allows discharge of trucked liquid waste.

The TLW Program will authorize liquid waste haulers to dispose of hauled waste at either of the two locations. The City will obtain occasional audit samples of the liquids discharged at either facility, and will levy a discharge fee for disposal of trucked liquid waste at both locations.

Mobile Food Vendor Program

Applications for mobile food vendors are submitted to this program for review. Applicants are asked to submit a discharge management plan for waste water that may be produced by their operation. The intent of this review is to ensure that any food wastes and/or fats, oils, and grease from the operation are being disposed of properly.

Septic Dump Program

A septic dump is a location where recreational vehicles are allowed to empty their sewage waste into the sanitary sewage system. There are an unknown number of septic dumps in the City; there is currently no monitoring and the frequency of use is unknown.

The known dump sites will be mapped and appropriate education and signage will be produced. Additional sites may be located and mapped during the development of the baseline discharge inventory. The City will work with the owners of these sites to ensure that only appropriate discharges are occurring.

Special Discharges Program

Businesses that wish to discharge an unusual substance to the sanitary sewer system for a limited period of time can apply to this program for discharge permit. Requirements will be determined via cooperation between program staff, collections system staff, and treatment facility staff.

Residential Education Program

Residential discharges represent the largest contribution, by volume, and are the most predictable, by composition, of all the discharges to the sanitary sewer system. It would be cost prohibitive to attempt to individually regulate residential dischargers, especially since each represents a relatively low level of risk.

Residential discharges will be addressed via education regarding appropriate use of the sanitary sewer system.

Current Issues

Currently, there are no compelling quality problems reported in either the treated effluent that is discharged to the river, or the biosolids that are spread on farmland. However there are ongoing issues in the collection system with accumulations of fats, oil and grease (FOG), and grit that cause maintenance problems. Increases in the amount of metals in the waste water entering the treatment plant have also been detected.

Source Control Programs for the Sanitary Sewer System: An Overview

The Fats, Oil and Grease Program and the Grit Program target current issues in the collection system. The education component of these programs can be rolled out under the current Sewer Use Bylaw, while enforcement will be addressed by the new Sewer Use Bylaw.

The FOG Program will impact approximately 800 restaurants in Saskatoon, and it is anticipated that compliance will involve education and cooperation with many businesses. This is the largest group of businesses that will be impacted by a single program.

The Grit program will impact any business in Saskatoon that has an overhead door with a floor drain. These businesses are not easy to categorize in relation to their business type and will be one of the most difficult groups to communicate with.

Since the FOG and Grit Programs will require the most communication effort, the educational component of these programs will be rolled out first, with information sessions planned for April 2015.

Table 1: Impacts of Source Control Programs

Source Control Program	Operation Type	Estimated Number
Limits and Prohibited Substances	Any business (industrial, commercial, institutional) that discharges a substance that is limited or prohibited by the bylaw	1600
Fats, Oil and Grease (FOG)	Restaurants	800
Grit	Businesses with an overhead vehicle door and floor drain	500
Surcharge	Businesses who discharge specific parameters in excess of the limits in the bylaw	5
Trucked Liquid Waste	Liquid waste haulers	20
Mobile Food Trucks	Mobile food trucks	5
Septic Dumps	Any business with a septic dump for recreational vehicles.	unknown
Residential Education	Not business-related	250,000

Findings of the Baseline Inventory

Response to baseline inventory site visits has been positive. Approximately 580 businesses were approached by the end of 2014; the participation rate has been about 90%. Issues that have been identified during site visits will be addressed by educational materials and by enforcement provisions in the new sewer use bylaw. To date, issues include access to businesses for future inspections, language barriers, and non-compliance with the current and/or future bylaw. Approximately 70% of the current participants are already in compliance with the new approach to the sewer use bylaw.

Source control programs and supporting educational materials are being developed on the basis of these site visits in order to manage the actual risks represented by discharges to the sanitary sewer system. This approach ensures that the expectations of the new bylaw are reasonable and cost-effective for businesses.

Advanced Metering Infrastructure Project - Award of Contract with Elster Solutions Canada

Recommendation

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

1. That a contract with Elster Solutions Canada Incorporated for the supply of electricity meters, water meter communication modules, and AMI software, data collectors and repeaters for the Advanced Metering Infrastructure project for a total fee of $10,878,257.25 (including GST) be approved;
2. That the City Solicitor be requested to prepare the appropriate agreement and that His Worship the Mayor and the City Clerk be authorized to execute the agreement under the Corporate Seal; and,
3. That Purchasing Services be authorized to issue the necessary Purchase Orders to Elster Solutions Canada Incorporated for these purchases.

Topic and Purpose

That City Council approve a contract with Elster Solutions Canada Incorporated (Elster) for the supply of the necessary equipment for implementation of an Advanced Metering Infrastructure (AMI) system for both the electricity and water utilities to be operational in 2016. An AMI system is used to transmit electricity and water consumption data from the individual meters to the utilities.

Report Highlights

1. Saskatoon Light & Power (SL&P) has standardized on the use of Elster meters since 2008, and all water meters installed by Saskatoon Water since 1994 are compatible with Elster communication modules.
2. The total cost of electricity meters, water modules, and the AMI system is within budget estimates.
3. Elster has supplied meters, modules, and AMI systems for several other successful AMI projects implemented at utilities across Canada.

Strategic Goal

This report supports the long-term strategy to increase productivity by being more efficient in the way the City does business, and to leverage technology and emerging trends to reach City goals and service citizens, under the Strategic Goal of Continuous Improvement. This report also supports the long-term strategy to reduce lost revenues under the Strategic Goal of Asset and Financial Sustainability. By eliminating the need to read meters manually, greenhouse gas (GHG) emissions tied to City operations will also be reduced, under the Strategic Goal of Environmental Leadership.

Background

At its meeting on June 23, 2014, City Council directed Administration to negotiate pricing, terms and conditions with Elster for the supply of the electricity meters, water meter communication modules, and the AMI system (data collectors and repeaters, software, training and support), and to report back with the appropriate recommendations.

Report

Standardized use of Elster Meters and Modules

Metering manufacturers each use their own proprietary communication protocol for their AMI systems. In order to avoid the cost of buying and maintaining multiple AMI systems, it is financially advantageous to standardize the type of meters used by SL&P. As SL&P has already upgraded approximately 55% of its meters using the product supplied by Elster, it is recommended to continue this standard for the balance of the deployment. The 54,000 meters installed by Saskatoon Water since 1994 are compatible with Elster communication modules.

Costs are within Budget

Administration negotiated with Elster for the purchase of the balance of electricity meters (27,000) required to complete the deployment, 69,000 communication modules for the water meters, the AMI System (data collectors, repeaters and head-end system software), and an annual maintenance and support contract. The net cost of all equipment, professional services and support is $10.36 million, and is within budget estimates.

Electricity Meters (quantity 27,000)	$ 3,621,577.00
Water Modules (quantity 69,000)	5,561,230.00
Collectors (qty. 65) & Repeaters (qty. 252)	255,917.00
AMI System Software	388,224.00
Project Management Fees	435,223.00
Support & Maintenance Agreement (per year)	98,074.00
GST	518,012.25
Total Cost	$10,878,257.25
Less GST Rebate	(518,012.25)
Net Cost to the City	$10,360,245.00

The cost for the electricity meters listed above includes the purchase of an optional performance warranty, (at an additional cost of 4%, or approximately $137,850), and provides remedy if more than 5% of the installed meters are non-conforming, or if any non-conforming meter gives rise to a public safety issue that could potentially result in property damage or fire. The remedy provides for repair or replacement of the non-conforming meters and extension of the warranty for an additional four years for the entire meter vintage.

A price adjustment clause has been included in the contract due to the extended implementation schedule and anticipated Canada/US exchange rate fluctuations during

this time. The cost estimates above are therefore based on current exchange rates in effect at the time of writing this report.

Elster has Deployed AMI Systems across Canada

Over the past several years, AMI systems have been deployed by electric, water, and natural gas utilities throughout North America, including most Canadian provinces.

Elster smart meters have been installed at many other utilities across Canada, including SaskPower, with major deployments in the provinces of Ontario and Alberta. Elster has been engineering and manufacturing meters for 125 years (beginning as Westinghouse in the United States), and now have over 8 million smart meters and 110 AMI/smart grid systems deployed worldwide. Elster meters are designed, manufactured, and guaranteed to operate in accordance with American National Standards Institute standards.

SL&P has been using Elster meters since 2008 in Saskatoon and has received no reports of meter-related fires.

Options to the Recommendation

The recommendations could be rejected and manual meter readings would continue. It should be noted that meter reading staff numbers have not increased in the past decade to keep pace with the growth of the City and a program review would be undertaken.

There is also an option to implement and operate two separate AMI systems. The one system would be supplied by Elster and would read the existing electricity meters. The second system would be tendered publicly and would read the new meters installed by SL&P, along with all water meters. The economic feasibility of this option was explored and is not recommended. The additional cost for this option is estimated to be between $2.5 million and $3.0 million.

Public and/or Stakeholder Involvement

Open houses were held on February 11 and 12, 2014 to provide information on AMI and answer questions. Online consultation was also facilitated through ‘Shaping Saskatoon’ between January 27 and March 14, 2014.

Communication Plan

A Communication Plan has been developed to inform stakeholders about smart meters, how they work, and the installation process. As the project progresses, significant milestones will continue to be communicated with citizens, the news media, on the City of Saskatoon website and through other appropriate communication channels.

Financial Implications

AMI System installation will begin in 2015, and the system will be operational in 2016 (these costs are shared 55% by SL&P, and 45% by Saskatoon Water). Electricity meter deployment will occur over three years, through the end of 2017. Water module

deployment will occur over five years, through the end of 2019 (although water modules will be purchased over three years to take advantage of volume pricing).

Adequate funding is available in approved capital project budgets, and proposed capital plans through the end of 2019, for SL&P Capital Project #724 – Electricity Meters, SL&P Capital Project #1250 – AMI Implementation, and Saskatoon Water Capital Project #1055 – AMR Infrastructure. The following table shows a breakdown of costs over this period.

Division	Capital Project	Expenditure
Saskatoon Light & Power	724 – Electricity Meters	$1,207,192 (per year for 3 years)
	1250 – AMI Implementation	$647,591 (55% of AMI system)
Saskatoon Water	1055 – AMR Infrastructure	$529,846 (45% of AMI system)
	Water modules	$1,853,744 (per year for 3 years)

Environmental Implications

The recommendation will have resource consumption and GHG emissions implications associated with replacing existing meters with smart meters. However, implementation of the new 'smart' meter technology will result in annual GHG emissions reductions associated with the ability to retrieve and verify meter data remotely, eliminating the requirement to operate fleet vehicles to read meters manually (estimated at 35 tonnes of CO2e per year). The recommendation is expected to have positive implications for water resources resulting from a reduction in losses of pumped water through the distribution system due to improved detection of leaks. The GHG emissions reductions created by the reduced water use are estimated at 3,300 tonnes CO2e, which is the equivalent of removing over 685 vehicles from the road each year.

Privacy Implications

The City of Saskatoon complies with the Province of Saskatchewan's privacy legislation, and will apply the same privacy protection standards for the AMI system as are used for the current billing system. All consumption data collected is only used to ensure accurate billing. All data and meter identification information is encrypted and transmitted over a secure network, and does not include any personal information.

Other Considerations/Implications

There are no policy or CPTED implications or considerations.

Due Date for Follow-up and/or Project Completion

The AMI system is expected to be complete and operational in 2016, with all electricity meters installed by the end of 2017, and all water meter communication modules installed by the end of 2019.

Public Notice

Public Notice pursuant to Section 3 of Policy No. C91-021, Public Notice Policy, is not required.

Report Approval

Written by:	Kevin Hudson, Metering & Sustainable Electricity Manager
Reviewed by:	Trevor Bell, Director of Saskatoon Light & Power Reid Corbett, Director of Saskatoon Water Shelley Sutherland, Director of Corporate Revenue
Approved by:	Jeff Jorgenson, General Manager Transportation & Utilities Department

EUCS KH - AMI Project - Award of Contract with Elster Solutions Canada