



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

Monday, May 8, 2017, 9:00 a.m.

Council Chamber, City Hall

Committee Members:

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

Pages

1. CALL TO ORDER

2. CONFIRMATION OF AGENDA

Recommendation

That the agenda be confirmed as presented.

3. DECLARATION OF CONFLICT OF INTEREST

4. ADOPTION OF MINUTES

Recommendation

That the minutes of meeting held on April 4, 2017, be adopted.

5. UNFINISHED BUSINESS

6. COMMUNICATIONS (requiring the direction of the Committee)

6.1 Delegated Authority Matters

Recommendation

That the request for extension to The Noise Bylaw as outlined in 6.1.1 to 6.1.8 be approved subject to any administrative conditions.

**6.1.1 Noise Bylaw Extension, Swingin' on the Saskatchewan.,
Tuesday evenings, May 2 to Sept. 26, 2017, 7:00 p.m. to 10:00
p.m., River Landing Amphitheatre, Heidi Lazorko, President,
Saskatoon Lindy Hop Inc. [CK. 185-9]**

8 - 8

6.1.2 Noise Bylaw Extension, 39th Saskatchewan Marathon, May 28,

9 - 9

2017, 6:00 a.m. to 3:00 p.m., St Henry Ave & Diefenbaker Park, Jeff Culbert [CK. 185-9]

- 6.1.3 Noise Bylaw Extension, Crohn's and Colitis Canada charity fundraising event, June 4, 2017, 11:00 a.m. to 1:00 p.m., North Kiwanis Park, Alex Ryback [CK. 185-9] 10 - 10
- 6.1.4 Noise Bylaw Extension, 43rd Annual Civic Pancake Breakfast, June 15, 2017, 6:00 a.m. to 10:30 a.m., 23rd St between 3rd and 4th Avenues, Chelsea Mamer, Chair, Civic Pancake Breakfast Organizing Committee [CK. 185-9] 11 - 11
- 6.1.5 Noise Bylaw Extension, Annual Traditional Powwow, Greater Saskatoon Catholic School F.N.M.E. team, June 23, 2017, 8:00 a.m. to 4:00 p.m., Thornton Park, Arliss Coulineur, First Nations Metis Education Consultant [CK. 185-9] 12 - 12
- 6.1.6 Noise Bylaw Extension, Potash Corp Annual Corporate BBQ, July 14, 2017, until 11:00 p.m., Delta Bessborough Gardens, Adam Zbitniff, Human Resource Student [CK. 185-9] 13 - 13
- 6.1.7 Noise Bylaw Extension, FMG Saskatoon Dragon Boat Festival, July 21 and 22, 2017, 8:00 a.m. to 6:00 p.m., Rotary Park, Scott Walker, Saskatoon Dragon Boat Festival [CK. 185-9] 14 - 14
- 6.1.8 Noise Bylaw Extension, Celebration of Life Cancer Fundraiser, September 9, 2017, 8:00 p.m. to 1:00 a.m., 3402 Balfour Street, College Park, Chandra and Darren Ulmer [CK. 185-9] 15 - 17

6.2 Matters Requiring Direction

- 6.2.1 2016 Annual Report - Cultural Diversity and Race Relations Committee [CK. 430-29] 18 - 22

The Cultural Diversity and Race Relations Committee has approved submission of the 2016 Annual Report. The Chair will be in attendance.

Recommendation

That the 2016 Annual Report of the Cultural Diversity and Race Relations Committee be forwarded to City Council for information.

- 6.2.2 Proposed Advisory Committee Budget for 2018 [CK. 1704-5]

The following proposed budget is submitted for consideration for placement in the 2018 Business Plan and Budget:

Cultural Diversity and Race Relations Committee - \$15,100

(same as 2017) to include:

Member Development - \$1,000

Cultural Diversity and Race Relations Month - \$3,000

Education and Awareness Initiatives - \$11,100

Recommendation

That the above proposed budget of the Cultural Diversity and Race Relations Committee be included in the 2018 Business Plan and Budget for consideration at that time.

6.3 Requests to Speak (new matters)

- 6.3.1 Slope Instability between 11th Street E and Saskatchewan Cres E [CK. 4000-1] 23 - 23**

A request to speak from Judy and Bob Tokaryk, dated April 18, 2017, is provided.

Recommendation

That the information be received.

7. REPORTS FROM ADMINISTRATION

7.1 Delegated Authority Matters

- 7.1.1 Wastewater Treatment Plant - Digester Upgrade Project - Request for Proposal [CK. 7800-1 and WT. 7990-111] 24 - 27**

Recommendation

That the report of the General Manager, Transportation & Utilities Department, dated May 8, 2017, be received as information.

- 7.1.2 Upgrades to Meewasin Trail - Children's Discovery Museum to Riverworks Weir [CK. 4205-5 and PL. 181-13-8] 28 - 54**

Representatives from Meewasin Valley Authority and the City of Saskatoon will be in attendance to answer questions and provide a PowerPoint presentation.

The following requests to speak are provided:

- Jake Buhler, dated April 23, 2017 (PowerPoint); and
- Richard Kerbes, SOS Elms Coalition, dated May 1, 2017.

Recommendation

That the information be received.

- 7.1.3 Initiatives to Support Energy-Efficient Building Standards in Residential Construction [CK. 540-1 and PL. 4350-242-14]** 55 - 68

Recommendation

That the information be received.

7.2 Matters Requiring Direction

- 7.2.1 Energy Performance Contracting Negotiations and Letter of Intent [CK. 752-1, x 606-2 and CP. 753-008]** 69 - 75

Recommendation

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

1. That MCW Custom Energy Solutions Ltd. be accepted as the highest scoring proponent for the Energy Performance Contracting Request for Proposal (#17-0143);
2. That the Administration communicate to the Energy Services Company that loan periods greater than 15 years, and potentially as long as 30 years, may be acceptable to City Council;
3. That the City Solicitor be requested to assist in the negotiation of Letter of Intent agreements and that the City Manager be authorized to execute Letters of Intent under the Corporate Seal;
4. That the City Solicitor be requested to prepare the appropriate agreement for the lighting replacement at the Shaw Centre and that His Worship the Mayor and The City Clerk be authorized to execute the agreement under the Corporate Seal; and
5. That the City Solicitor be requested to assist in the negotiation of Energy Performance Contract agreement(s).

- 7.2.2 Aquatic Invasive Species - Potential Local Impacts [CK. 7550-1, x 277-1 and CP. 7556-001]** 76 - 84

Recommendation

That the report of the General Manager, Corporate Performance Department, dated May 8, 2017, be forwarded to City Council for information.

- 7.2.3 Green Infrastructure Strategy [CK. 4110-38 and CP. 7556-003]** 85 - 90

Recommendation

That the report of the General Manager, Corporate Performance Department, dated May 8, 2017, be forwarded to City Council for information.

- 7.2.4 Natural Capital Asset Valuation [CK. 7550-1, x 1702-1 and CP. 1657-002]** 91 - 95

Recommendation

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

1. The information pertaining to Natural Capital Asset valuation for natural (“green”) infrastructure contained within City of Saskatoon limits be received; and
2. That a capital project for the Natural Capital Asset valuation be created to enable an application to the Federation of Canadian Municipalities (FCM) Municipalities for Climate Change Innovation Program.

- 7.2.5 Waste Diversion Opportunities [CK. 7830-1 and CP. 7542-006]** 96 - 103

Recommendation

That the report of General Manager, Corporate Performance Department, dated May 8, 2017, be forwarded to City Council and SEAC for information.

- 7.2.6 Recovery Park Update - May 2017 [CK. 7830-4-2 and CP. 7838-005]** 104 - 117

A request to speak from Don Francis, Envirocan, dated May 2, 2017, is provided.

A PowerPoint presentation will be provided.

Recommendation

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

That the Administration prepare and release a Request for Proposal(s) for the design and construction of Phases 1 and 2 of Recovery Park.

- 7.2.7 Proposed Small Power Producer Program Rate Increase [CK. 118 - 119]**

1905-3 and SLP. 2000-12-0]

Recommendation

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

1. That the proposed Small Power Producer Program rate be approved for Saskatoon Light & Power as outlined within this report; and
2. That the City Solicitor prepare the necessary amendment to Bylaw No. 2685, The Electrical Light and Power Bylaw, for consideration by City Council.

7.2.8 Capital Project No. 1243 - WWT - Lift Station Upgrades - Lift Station Assessment 2017 - Award of Engineering Services [CK. 7820-3 and WWT. 7990-89] 120 - 123

Recommendation

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

1. That the proposal submitted by MPE Engineering Ltd. for engineering services for the Lift Station Assessment 2017, for a total upset fee of \$395,204.36 (including GST), be approved; 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.

7.2.9 Landfill Gas Engine-Generator Major Maintenance Services [CK. 2000-5, x 1000-1 and SLP. 2000-10-7] 124 - 126

Recommendation

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

1. That the proposal submitted by Finning Canada for the Landfill Gas Engine-Generator Maintenance Services be accepted; and
2. That Purchasing Services be authorized to issue a Blanket Purchase Order to Finning Canada for the supply of maintenance services for a one-year term, for a total estimated cost (including GST and PST) of \$432,313, with

the option of Administration to extend the Blanket Purchase Order for one additional year.

- 7.2.10 Landfill Gas Collection Wellfield Expansion - Award of Engineering Services [CK. 2000-5 and PW. 7834-2]** 127 - 131

Recommendation

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

1. That the proposal submitted by Tetra Tech Canada Inc. for engineering services for the detailed design of the Landfill Gas Wellfield Expansion, for a total upset fee of \$157,506.30 (including GST) be approved; 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.

- 7.2.11 Request to Exceed in Excess of 25% of Purchase Order No. 363928 - Marquis Phase VIII Primary Water Main Valves Repair Work [CK. 7820-6 and TS. 4111-43-5]** 132 - 134

Recommendation

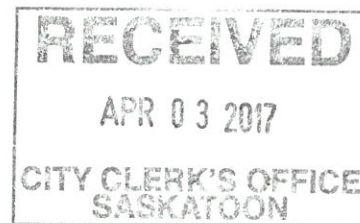
That the Standing Policy Committee on Environment, Utilities and Corporate Services recommend to City Council:

That the Administration be given approval for Purchase Order #363928 for Marquis VIII Primary Water Main Valves Repair Work to exceed 25% of the purchase order value.

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

Heidi Lazorko

802 Main Street
Saskatoon, SK S7H 0K3
(306) 260-9431
heidi.lazorko@saskatoonlindyhop.ca



27th March 2017

City Clerk's Office

% City Hall
222 3rd Avenue North
Saskatoon, SK S7K 0J5
city.clerks@saskatoon.ca

Re: Noise Bylaw Extension

To Whom it May Concern,

On behalf of Saskatoon Lindy Hop Inc., I'm requesting an extension to the City of Saskatoon's Noise Bylaw. This request is for Swingin' on the Saskatchewan, to be held at the River Landing amphitheatre on Tuesday evenings from May 2nd to September 26th, inclusive. We request an extension of the Noise Bylaw to 10pm for these nights.

Saskatoon Lindy Hop provides a weekly opportunity for a free swing dance lesson and deejayed dance at the River Landing Amphitheatre. This event uses speakers and microphone headsets for the instructors, with amplified music until 10pm. This event has been happening at River Landing since 2008, with Saskatoon Lindy Hop Inc. taking over its operation in 2010. Enclosed is a sample postcard regarding the event.

Summary of request details:

- Event: Swingin' on the Saskatchewan
- Contact info: Heidi Lazorko, phone (306) 260-9431, email heidi.lazorko@saskatoonlindyhop.ca
- Dates and Times: 7-10pm Tuesday evenings from May 2nd to September 26th, 2017 inclusive
- Location: River Landing Amphitheatre

Thank you for your consideration.

Sincerely,

Heidi Lazorko

President, Saskatoon Lindy Hop Inc.

185-9

From: City Council
Sent: Monday, April 10, 2017 1:59 PM
To: City Council
Subject: Form submission from: Write a Letter to Council

Submitted on Monday, April 10, 2017 - 13:59
Submitted by anonymous user: 142.165.205.224
Submitted values are:

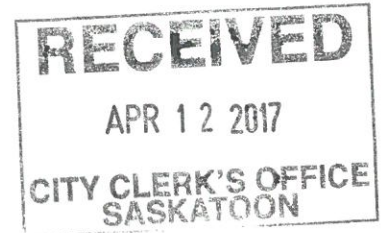
Date: Monday, April 10, 2017
To: His Worship the Mayor and Members of City Council
First Name: Jeff
Last Name: Culbert
Address: 131 Wall Street
City: Saskatoon
Province: Saskatchewan
Postal Code: S7K6C2
Email: jculbert@onpurpose.ca
Comments:
Noise Bylaw Extension request:
39th Annual Saskatchewan Marathon: Sunday, May 28th, 2017 on St Henry Ave & Diefenbaker Park
6:00am-3:00pm
-there will be amplified sound from our stage and set up crews

Requesting permission for the extension, please and thank you.
Thanks,
Jeff

The results of this submission may be viewed at:
<https://www.saskatoon.ca/node/398/submission/163099>

185-9

From: City Council
Sent: April 11, 2017 3:46 PM
To: City Council
Subject: Form submission from: Write a Letter to Council



Submitted on Tuesday, April 11, 2017 - 15:45
Submitted by anonymous user: 216.65.182.66
Submitted values are:

Date: Tuesday, April 11, 2017
To: His Worship the Mayor and Members of City Council
First Name: Alex
Last Name: Ryback
Address: 550 Delayen Cres.
City: Saskatoon
Province: Saskatchewan
Postal Code: S7N 2V2
Email: alex.ryback@gmail.com

Comments: I would like to request an extension to the noise bylaw for a charity fundraising event for Crohn's and Colitis Canada on Sunday June 4th. Our event takes place in North Kiwanis Park, at the end of 22nd Street. We would like to have amplified music during the hours of 11AM to 1PM, which is outside of the noise bylaw hours. The music will not be very loud, only to serve those in the immediate vicinity within the park, aimed North. This is the 21st year this event has taken place in Saskatoon. It is a national event serving to raise funds to find a cure for Inflammatory Bowel Disease.

The results of this submission may be viewed at:
<https://www.saskatoon.ca/node/398/submission/163198>



185-9



April 20, 2017

His Worship the Mayor
and Members of City Council

Your Worship and City Councillors:

**Re: Request for Extension of the Noise Bylaw
43rd Annual Civic Pancake Breakfast
Thursday, June 15, 2017 - 6:00 a.m. to 10:30 a.m.**

Once again, it is that time of year for the annual Civic Pancake Breakfast, scheduled to be held on 23rd Street between 3rd and 4th Avenues from 7:00 a.m. to 10:30 a.m. on Thursday, June 15, 2017.

The Civic Pancake Breakfast Organizing Committee is requesting that the Standing Policy Committee on Environment, Utilities and Corporate Services extend the hours under the Noise Bylaw to accommodate the amplified music from the live entertainment from 6:00 a.m. (for warm-up) through 10:30 a.m.

We are pleased to once again be hosting a "zero waste" event by using compostable dishes, cups, cutlery, and garbage bags, as well as providing an education to the public about living more sustainably.

As in previous years, there will be entertainment, celebrity servers, sunshine, and fun!

Yours truly,

Chelsea Mamer, Chair
Civic Pancake Breakfast Organizing Committee

185-9

From: City Council
Sent: April 27, 2017 2:25 PM
To: City Council
Subject: Form submission from: Write a Letter to Council



Submitted on Thursday, April 27, 2017 - 14:25
Submitted by anonymous user: 216.174.135.162
Submitted values are:

Date: Thursday, April 27, 2017
To: His Worship the Mayor and Members of City Council
First Name: Arliss
Last Name: Coulineur
Address: 420- 22nd Street East
City: Saskatoon
Province: Saskatchewan
Postal Code: S7K1X3
Email: acoulineur@gscs.ca
Comments:
To whom it may concern,

On behalf of the Greater Saskatoon Catholic School F.N.M.E. team, I would like to request a Noise Bylaw Extension for our annual division traditional powwow to be held on Friday, June 23, 2017 at Thornton Park by St. Frances Cree Bilingual School. The time for this event is from 8:00 a.m. to 4:00 p.m. The use of a sound system and the audibility of the song and drumming are the reasons for this request.

Please feel free to contact me if you have any concerns or questions regarding this request.

Arliss Coulineur- nipawiw asiniy σ<Δ·°<1'σ+
First Nations Metis Education Consultant
Greater Saskatoon Catholic Schools
420 - 22nd Street East
Saskatoon, Sk.
S7K1X3

Office: (306) 659-7094
Cell: (306) 222-4088
E-mail: acoulineur@gscs.ca

The results of this submission may be viewed at:
<https://www.saskatoon.ca/node/398/submission/165349>

185-9



March 31, 2017

City of Saskatoon
222 – 3rd Avenue North
Saskatoon SK S7K 0J5

Re: Noise Bylaw Extension Request

To Whom It May Concern:

We are requesting an extension to the Noise Bylaw for Friday, July 14, 2017 until 11:00 PM. We will be holding our annual corporate summer BBQ at the Delta Bessborough Gardens in which we will have a DJ playing amplified sound for our guests. We look forward to receiving your response to this request.

Regards,

Adam Zbitniff
Human Resources Student

From: City Council
Sent: March 30, 2017 5:19 PM
To: City Council
Subject: Form submission from: Write a Letter to Council



Submitted on Thursday, March 30, 2017 - 17:19
Submitted by anonymous user: 50.71.68.219
Submitted values are:

Date: Thursday, March 30, 2017
To: His Worship the Mayor and Members of City Council
First Name: Scott
Last Name: Walker
Address: #392 - 23, 845 Dakota St
City: Winnipeg
Province: Manitoba
Postal Code: R2M 5M3
Email: fmg@fmgdragonboat.com

Comments:
Members of Saskatoon City Council March 30
2017

FMG Saskatoon Dragon Boat Festival enters it's twenty fifth year of continuous operation in Saskatoon, the last eight years at Rotary Park. The event is a major fundraiser for community based charities specifically Children's Wish Foundation of Saskatchewan and Ronald McDonald House Saskatoon. Over forty community and corporate teams participate in this fun safe event on the South Saskatchewan River at Rotary Park July 21st & 22nd 2017. Festival hours are 8am – 6pm daily on Festival weekend; a small public address system is used by a professional announcer to call the races and inform the attending public of Festival activities. The Festival does no operate a beer garden nor allows live music. Residence within a two block area are being informed of the Festival as has been done in the past without objection. FMG Saskatoon request extension of the Noise Bylaw to accommodate our activities on the dates and times outlined herein.

Respectfully Submitted

FMG Saskatoon Dragon Boat Festival

The results of this submission may be viewed at:
<https://www.saskatoon.ca/node/398/submission/162471>

185-9

Noise Bylaw Extension Request for "Celebration of Life" Cancer Fundraiser



April 24th, 2017

To whom it may concern,

My name is Chanda Ulmer. My husband Darren Ulmer and I host a Private, invitation only, Cancer Fundraiser every two years in our home. The last event, September 2015, raised over \$8000.00 for the Lymphoma and Leukaemia Event, "Light the Night".

This years event (Celebration of Life Cancer Fundraiser) is planned for Saturday, September 9th, 2017. Our guest list is around 100 people. The event runs from 8pm until 1am. We provide food and live entertainment in the form of a band in our heated, very large garage, with the addition of a 20' x 20; special event tent.

In 2015 we were granted an extension to The Noise Bylaw. Please consider this our request for the same extension for this years event.

Sincerely,

Chanda Ulmer

A handwritten signature in cursive script that reads "Chanda Ulmer".

Contact info:

Chanda Ulmer
3402 Balfour St.
Saskatoon, SK
S7H 3Z2

Ward 8

306-291-5769
chandau@sasktel.net

¹³
Sample ¹¹

Hello neighbours,

Just a friendly note to let you know that 3402 Balfour St. is hosting a private Cancer fundraiser on Saturday, September 9th 2017.
It will be a "Celebration of Life Party."

We will be having a live band, and we have permission from the City Bylaws Committee to go from 8pm until 1am.

We just wanted to let you know incase you were wondering what the heck was going on.

You may have already noticed that we do this every two years.

We choose a different Cancer charity every time, past ones have included the Saskatchewan Cancer Agency, Terry Fox Foundation, Hope Cancer Center and last time we raised OVER \$8000.00 for the Lymphoma & Leukemia Foundation in support of "Light the night."
This year our charity of choice this year is the XXXXXXXXXXXXXXXX

If you or your family has been touched, smacked and beat-up by cancer as ours has we hope you will understand our need to make some noise!!!

We are going to "Celebrate Life" the best way we know how and if you feel so inclined to make a donation to "Team Ulmer" please follow this link:

[https://secure.e2rm.com/registant/FundraisingPage.aspx?
registrationID=3070192&langPref=en-CA#&panel1-1](https://secure.e2rm.com/registant/FundraisingPage.aspx?registrationID=3070192&langPref=en-CA#&panel1-1)

The band will be "The Sofa Kings" an amazing local 80's dance band, so you might even want to open up your windows or sit on your deck and listen in!

Thank you for your support, we will post in the window how much we raise:)

Sincerely, The Ulmer Family (Darren, Chanda, Cole and Hanna).

July 24, 2015

Ms. Chanda Ulmer
3402 Balfour St
Saskatoon SK S7H 3Z2

Dear Ms. Ulmer:

**Re: Request for Extension of Bylaw No. 8244 – The Noise Bylaw, 2003
Celebrate Life Party, September 12, 2015, 8:00 p.m. to 1:00 a.m.,
3402 Balfour Street, College Park, Chanda and Darren Uimer
(File No. CK. 185-9)**

The Standing Policy Committee on Environment, Utilities and Corporate Services, at its meeting held on July 21, 2015, considered your email dated July 14, 2015, requesting an extension to *The Noise Bylaw, 2003*. The Committee passed a motion that the request to extend the time when amplified sound can be heard under *The Noise Bylaw, 2003* from 8:00 p.m. on September 12, 2015, until 1:00 a.m. on September 13, 2015, at 3402 Balfour Street, be approved.

Yours truly,



Shellie Bryant
Deputy City Clerk

SB:aam

cc: City Solicitor) A copy of the email
Police Chief) referenced above
General Manager, Community Services Department) is attached.

Example

April 27, 2017

Secretary, SPC on Environment,
Utilities and Corporate Services

**Re: 2016 Annual Report – Cultural Diversity and Race Relations Committee
(File No. CK. 430-29)**

The mandate of the Cultural Diversity and Race Relations Committee is to monitor and provide advice to City Council on issues relating to the Cultural Diversity and Race Relations Policy. The Committee also has a mandate to provide education and awareness initiatives on cultural diversity and race relations issues by supporting organizations in the community with initiatives that support one or more of the following four community outcomes of the Cultural Diversity and Race Relations Policy:

- The workforce will be representative of the population of Saskatoon;
- There will be zero tolerance for racism and discrimination in Saskatoon;
- Community decision-making bodies will be representative of the whole community of Saskatoon; and
- There will be awareness and understanding in the community regarding the issues, and acceptance of the various cultures that make up Saskatoon.

Committee Membership

Membership on the Cultural Diversity and Race Relations Committee for the year 2016 was as follows:

Councillor Eric Olauson (January – April)
Councillor Ann Iwanchuk (May – December)
Ms. Sharon Clarke, representing the Saskatoon Health Region
Ms. Joann Gaudry, representing the general public
Ms. Nayyar Javed, representing the general public
Mr. Darryl Isbister, representing the Saskatoon Public School Board
Ms. Cornelia Laliberte, representing the Greater Saskatoon Catholic School Board
Ms. Shirley Ross, representing the general public
Mr. Toffic Salah, representing the general public
Mr. Sam Sambasivam, representing the Saskatchewan Intercultural Association
Mr. Howard Sangwais, Ministry of Corrections, Public Safety and Policing
Mr. David Santosi, representing the Ministry of Social Services
Mr. Chris Sicotte, representing the Métis Community

Ms. Maria Soonias Ali, representing the general public
Dr. Jaris Swidrovich, representing the First Nations Community
Police Chief Weighill, representing the Saskatoon Police Service
Alternate Representative – Inspector Mitch Yuzdepski
Ms. Kari Wuttunee, representing the general public
Ms. Julie Yu, representing the general public

Focus for 2016

In 2016, the Committee continued its focus on the educational and awareness aspect of its mandate through the provision of co-sponsorships to groups in the community for initiatives promoting intercultural harmony and addressing cultural diversity and race relations issues. Through these events, the Committee hoped to increase the awareness about the Committee and to highlight the positive initiatives in the community.

Education and Awareness Initiatives

The Committee participated in the following education and awareness initiatives:

Cultural Diversity and Race Relations Month

City Council proclaimed March as Cultural Diversity and Race Relations Month in Saskatoon. Opening ceremonies were held in the Council Chambers on March 1, 2016.

The Living in Harmony Awards Ceremony was held on March 21, 2016 at Tommy Douglas Collegiate. As in the past, awards were presented for the Living in Harmony Art and Literary Contests. Recognition Awards were also presented to individuals and organizations to recognize their efforts in promoting intercultural harmony in the community. The Committee assisted with the adjudication of these awards.

Co-Sponsorship Initiatives

As part of its education and awareness mandate, the Committee continued to support community groups in their efforts to provide education and increase awareness of cultural diversity and race relations issues. The Committee's intent is to try to expand its reach through these opportunities and to assist others in hosting cultural diversity and race relations events throughout the year.

In considering co-sponsorship requests, the Committee reviewed the following:

- How the request fits in with the Committee's mandate;
- Whether the event takes place in Saskatoon, which is a requirement;

- Participation levels requested by Committee members on the planning committees for the events (to provide an opportunity for the Committee to provide input wherever possible and to create awareness about the Committee and its role);
- The target audience and event outreach (number of people attending, whether it is anticipated there will be attendance by diverse communities in Saskatoon and what is being done to promote the event beyond the organization hosting the event);
- Themes and focuses; and
- Time of year of the event to help raise awareness throughout the year.

The Committee provided co-sponsorship for the following events:

Bangladeshi Community Association of Saskatchewan – Celebration of International Mother Language Day

The Committee provided co-sponsorship in the amount of \$1,000 to the Celebration of International Mother Language Day event held on February 21, 2016 at St. Paul's United Church. Approximately 400 people attended the event and enjoyed the multicultural program and had the opportunity to get to know people from different linguistic and cultural backgrounds in the spirit of promoting peace and multilingualism.

Bedford Road Collegiate – Bedford Road Pow Wow

The Committee provided co-sponsorship in the amount of \$1,000 to the annual spring Pow Wow at Bedford Road Collegiate on March 16, 2016. The goal was to promote understanding of First Nations culture to the students, surrounding schools and community.

University of Saskatchewan Department of Linguistics and Religious Studies – Islam on the Prairies Conference

Co-sponsorship was provided to the Department of Linguistics and Religious Studies, University of Saskatchewan, in the amount of \$1,000 for the Islam on the Prairies Conference held on May 14, 2016. The public discussion forum, held at the Frances Morrison Library, contributed to multiculturalism by providing a venue for a wider community dialogue centered on the role of Islam as well as other religions in modern Canadian society.

Canadian Council for Refugees (CCR) and Saskatchewan Association of Immigrant Settlement and Integration Agencies (SAISIA) – Canadian Council for Refugees National Spring Consultation 2016

The Committee provided co-sponsorship in the amount of \$1,000 for this 3-day event held June 2-4, 2016 at the Hilton Garden Inn, Saskatoon. The theme of the event was Refugees Welcome Here: Awareness, Advocacy and Action. The event addressed issues affecting refugees and other vulnerable groups of migrants, newcomers, and focused on learning, sharing experiences and networking among those involved in refugee protection.

Pleasant Hill Community Association – Pleasant Hill Community Pow Wow

The Committee provided co-sponsorship in the amount of \$1,000 for the 14th Annual Pow Wow held in the Pleasant Hill community on June 10, 2016. The goal of the event was to bring communities together and provide an opportunity to celebrate and learn about Aboriginal culture.

Saskatoon Indian and Métis Friendship Centre – National Aboriginal Day Celebration

The Committee provided co-sponsorship in the amount of \$1,000 to the Saskatoon Indian and Métis Friendship Centre for National Aboriginal Day held in Victoria Park on June 21, 2016. The goal of the event was to educate the community about the rich culture and traditions of the First Nation and Métis.

Saskatoon Peace Coalition – Joanna Miller Peace Award

The Committee provided co-sponsorship in the amount of \$300 to the Saskatoon Peace Coalition, for the Joanna Miller Peace Award. This award was established in 2013 in memory of the late Joanna Miller to celebrate her many years of peace activism in the Saskatoon community. To honour those who work to promote peace, the award was presented to Dr. Meridale (Dale) Dewar and her late husband, William (Bill) Curry, who made significant contributions to the international movement to abolish nuclear weapons.

University of Saskatchewan Aboriginal Students' Centre Handbook - CD&RR Committee Ad

As an opportunity to increase the awareness of the existence of the Committee and its role, the Committee placed an ad in the University of Saskatchewan 2016-2017 Aboriginal Student Handbook at a cost of \$100.00. The ad included the purpose of the Committee and a link to the City's website regarding additional Cultural Diversity and Race Relations information.

Focus for 2017

The Committee will continue to support learning and awareness opportunities between Aboriginal and Immigrant communities. The Committee will also look at ways to involve families and increase awareness and understanding of cultural diversity and race relations issues in our community.

The Cultural Diversity and Race Relations Committee will continue to participate in events during Cultural Diversity and Race Relations Month and to co-sponsor events throughout the year to assist the Committee in achieving its education and awareness mandate.

The Committee, through the organizations represented on the Committee, and through its connections with other groups in the community, hopes to continue to build on the awareness of the four community outcomes.

- The workforce will be representative of the population of Saskatoon;
- There will be zero tolerance for racism and discrimination in Saskatoon;
- Community decision-making bodies will be representative of the whole community of Saskatoon; and
- There will be awareness and understanding in the community regarding the issues, and acceptance of the various cultures that make up Saskatoon.

The Committee will continue to look for more opportunities to share information about the successes of community partners in meeting the above outcomes and in celebrating their efforts in creating an inclusive community, where ethno cultural diversity is welcomed and valued, and where everyone can live with dignity and to their full potential, without facing racism or discrimination, as set out in the Cultural Diversity and Race Relations Policy. The Committee looks forward to further opportunities to advise City Council on ways to continue to create an inclusive and welcoming community.

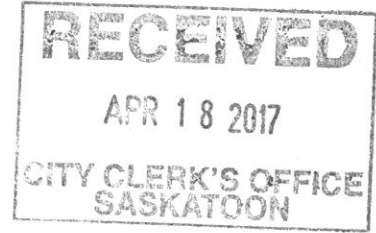
Yours truly,

Chris Sicotte, 2017 Chair
Cultural Diversity and Race Relations Committee

:jf

4000-1

From: City Council
Sent: April 18, 2017 1:03 PM
To: City Council
Subject: Form submission from: Write a Letter to Council



Submitted on Tuesday, April 18, 2017 - 13:03
Submitted by anonymous user: 207.47.240.69
Submitted values are:

Date: Tuesday, April 18, 2017
To: His Worship the Mayor and Members of City Council
First Name: Judy/ Bob
Last Name: Tokaryk
Address: 239 11th st e
City: Saskatoon
Province: Saskatchewan
Postal Code: S7N0E5
Email: judyto@shaw.ca
Comments:

I would like to address council regarding ongoing issues with the alley and slumping on the riverbank running between 11th st e and sask cres. e.

Judy Tokaryk
306-374-2691

The results of this submission may be viewed at:
<https://www.saskatoon.ca/node/398/submission/164112>

Wastewater Treatment Plant – Digester Upgrade Project – Request for Proposal

Recommendation

That the report of the General Manager, Transportation & Utilities Department dated May 8, 2016, be received as information.

Topic and Purpose

The purpose of this report is to provide information to the Standing Policy Committee on Environment, Utilities and Corporate Services around the planned Request for Proposal for engineering design services for the Wastewater Treatment Plant (WWTP) Digester and Heating Upgrade Project.

Report Highlights

1. The WWTP long-term planning report provides 30-year objectives and recommendations.
2. Addressing digester capacity concerns and increasing the WWTP's level of service to the public are the primary reasons for the project.
3. Procurement of specialized, external engineering services are required to provide design team experience and expertise from projects throughout Canada.
4. The Administration is preparing to issue a Request for Proposal for engineering services.

Strategic Goals

This report supports the Strategic Goal of Asset and Financial Sustainability through planning and budgeting of lifecycle maintenance and upgrades to existing equipment. This report also supports the Strategic Goal of Quality of Life by ensuring that treatment regulatory standards are met while minimizing effects on surrounding citizens.

Background

The City of Saskatoon H. McIvor Weir Wastewater Treatment Plant (WWTP) is a designated Class 4 treatment facility, the highest level of certification in Canada, and provides transmission and treatment services to Saskatoon residents, businesses, and surrounding communities. It currently processes, on average, 90 million litres of wastewater a day.

When the WWTP was built in 1971, the digester system was built with two digester tanks. A third digester was constructed in 1991. Since 2000, the plant has undergone facilities improvements including anaerobic digester mixing improvements to facilitate operation of a three primary digester process.

The digesters are comprised of three large process tanks and a central building. In the digesters, micro-organisms break down sludge and scum from the primary clarifiers, fermenters, and thickeners into gases and biosolids.

Report

Digestion Process

In 2012, a plant-wide Long Term Capital Development and Expansion Plan (LTCDP) was completed. The goal of the LTCDP was to provide the City with a forecast of expected upgrades and expansions required to meet the projected treatment objectives over a 30-year planning period. The LTCDP identified phasing and expansion requirements, project expandability on site, and allocation of useable space resulting in a basic capital expenditure plan. The LTCDP recommended a digester assessment be done in 2016 as digester capacity may be nearing its limit.

Digester Capacity Concerns

The digester assessment found that with all three digesters in operation, the current solids retention time (SRT) was an acceptable 20 days at average flow conditions in 2016. However, when one tank is taken out of service, the SRT drops to 12 days during average flow conditions. This indicates that the existing digester capacity is no longer sufficient and is below the SRT of 15 days that is recommended in the Sewage Work Design Standard issued by the Water Security Agency.

The construction of the WWTP Digester Tank 4 project will greatly improve the level of service and increase reliability at the plant. Currently, the WWTP's level of service is measurably impacted through reduced digester volumes related to upset conditions, high flow events, or maintenance. The long-term analysis of expected growth and loading on the plant, with the proposed fourth digester incorporating heating upgrades, shows improved levels of service and a reduction of risk to plant operations.

External Engineering Services

Work of this nature has been traditionally procured from the private sector. The work involves specialized design teams drawing on experience and expertise from projects throughout Canada. In order for the City to complete this work in-house, additional specialized staff would need to be hired for this project and then alternate work would need to be found upon project completion. City staff will implement the majority of the maintenance plan recommendations, with a combination of City staff and third party tenders to implement capital upgrades and construction, on a case-by-case basis.

Request for Proposal

To assist the project team with technical requirements during the design, planning, and procurement phases of the project, the Administration proposes to hire an engineering firm. The engineer reports to the project lead and will oversee the technical design, tender, and ensure that the contractor is following all technical submissions, standards and specifications.

The Administration will tender both the engineering firm and the contractor through Purchasing Services following the City's procurement policies. Both tenders will be public tenders that will be posted on SaskTenders. Through the expertise and ability of the Purchasing Services staff, the City receives the best value available in purchasing.

Scheduling and timing of the construction phases of this project will have to give consideration to plant operations. Operations cannot be compromised, and consideration is to be given to varying plant conditions during summer and winter operations.

It is in the City's best interest to move forward with this project in order to plan, design, and implement the work appropriately.

Fourth Digester Will Reduce Odour Risks during Digester Maintenance

Once the fourth digester is in operation, there will be a reduction in odours emitted from the plant during scheduled digester maintenance. This is due to the capacity improvements which will allow the digester being taken out of service the time required to fully break down the sludge it contains.

Financial Implications

The net cost to the City for engineering services is estimated at approximately \$2.5 million. There is sufficient funding for this work in Capital Project #2579 – WWT – Digester Tank 4.

Environmental Implications

The addition of a fourth digester tank will significantly increase capacity and reliability of the wastewater treatment process. Construction, operation, and maintenance of the new digester will include the use of natural resources and the generation of greenhouse gas emissions; however, these impacts are not known at this time.

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

It is estimated that design, tendering, construction, and commissioning of the work will take approximately three years. The construction is expected to be completed by summer of 2020.

Public Notice

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

Report Approval

Written by: Pamela Hamoline, Project Management Engineer, Saskatoon Water

Reviewed by: Larry Schultz, Engineering Services Manager, Saskatoon Water
Tim Bushman, Acting Director of Saskatoon Water

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

EUCS PH – WWTP – Digester Upgrade Project - RFP.docx

4500-1

To: Bryant, Shellie (Clerks)
Subject: RE: Speaking at Council



From: Jake and Louise Buhler [mailto:jakelouisebuhler@sasktel.net]
Sent: April 23, 2017 12:12 AM
To: Bryant, Shellie (Clerks) <Shellie.Bryant@Saskatoon.ca>
Cc: Block, Cynthia (City Councillor) <Cynthia.Block@Saskatoon.ca>
Subject: Speaking at Council

Ms. Bryant, if I have the incorrect address, or if my request is directed to the wrong person, please forgive me.

On Friday morning I was at the Clerk's office to make a request to appear before Council. My handwritten note was taken by a competent and polite assistant. She said I would here from you or another person. I was told by her that the subject of MVA was not on the agenda for Monday, and therefore my request might be denied.

I have also been in touch with my councillor, Cynthia Block, who I am copying here. I am not in contact with any other councillor or the mayor.

Councillor Block understands the protocol, and suggested if my request is turned down, she would recommend I appear before the Environmental Committee on May 8 at 9 am. This is chaired by Councillor Loewen.

I believe if I wish to appear in front of the Environmental committee, I must contact your office. I am doing this now. I will need AV assistance. I will bring with me a USB stick. It is my understanding that a presentation to this committee is not limited to 5 minutes.

What I wish to contribute is a summary of what was lost with the cutting down, not of trees, but an intact mini wooded ecosystem. I do not wish to rail at MVA for their actions, grievous as they may be. MVA has not addressed this issue in any way.

My first choice is still to appear before Council on Monday evening. The reason for an early intervention is that time is of the essence. Each passing day without an opportunity to speak of the loss on Spadina, is valuable information withheld from the citizens of Saskatoon. Hundreds of concerned citizens are without an explanation, other than what MVA can provide. As a citizen of Saskatoon in good standing, I request that my right to appear before my elected council be granted. Should that be possible on Monday, I would be pleased. If not, I trust I could address Council at the earliest next opportunity.

Jake Buhler

B.A, B.Ed, M.Ed, M.Th.S.
306 244 1392

836 Main St
S7H0K3

4500-1



JAKE BUHLER
836 Main St
S7H 0K3
306 244 1392

I wish to make a 5 minute
presentation to Council related to
Urban Forestry / MVA

I will require assistance with
A/V and will provide
the technician with a USB
stick. With thanks.

Jake Buhler

jakelouisebuhler@sasktel.net

4139-4

From: City Council
Sent: May 01, 2017 4:44 PM
To: City Council
Subject: Form submission from: Write a Letter to Council



Submitted on Monday, May 1, 2017 - 16:43
Submitted by anonymous user: 71.17.234.52
Submitted values are:

Date: Monday, May 01, 2017
To: His Worship the Mayor and Members of City Council
First Name: RICHARD
Last Name: KERBES
Address: 1126 SPADINA CR E
City: SASKATOON
Province: Saskatchewan
Postal Code: S7K3H7
Email: mysy@sasktel.net

Comments:
On behalf of SOS Elms Coalition (see soselms.org) I wish to speak to the Saskatoon Environmental Advisory Committee at their meeting of 8 May 2017.
I wish to address the Committee about the removal of trees by the MVA along the east side of the MVA Trail between Duke and Queen Streets. Said tree removal began on 10 April 2017 and was essentially completed by 15 April 2017.
Respectfully submitted,
Richard Kerbes
Secretary, SOS Elms Coalition Inc.
Saskatoon SK
Phone 306-653-4209

The results of this submission may be viewed at:
<https://www.saskatoon.ca/node/398/submission/166191>

Upgrades to Meewasin Trail – Children’s Discovery Museum to Riverworks Weir

Recommendation

That the information be received.

Topic and Purpose

The purpose of this report is to provide Committee with information on the project to upgrade the trail system that connects the Children’s Discovery Museum to Riverworks Weir.

Report Highlights

1. City Council, at its March 27, 2017 meeting, endorsed an operating agreement between the City of Saskatoon and Meewasin Valley Authority for the project to upgrade the trail system that connects the Children’s Discovery Museum to Riverworks Weir (see Attachment 1).
2. This report provides an opportunity for further information to be provided on project design, communications, and construction schedule.

Strategic Goals

The trail is an important facility in the city for active transportation and passive recreation; upgrades to the trail support the City of Saskatoon’s (City) long-term strategic goals of Moving Around and Quality of Life.

Background

City Council, at its March 27, 2017 meeting endorsed the report of the General Manager, Community Services Department, to include the noted project in the maintenance agreement between the City of Saskatoon and the Meewasin Valley Authority. Since that time, some questions have been raised in the community related to the project design, communications, and construction.

Report

City Council, at its March 27, 2017 meeting, endorsed an operating agreement between the City of Saskatoon and Meewasin Valley Authority for Meewasin’s project to upgrade the trail system that connects the Children’s Discovery Museum to Riverworks Weir (see Attachment 1).

Project design was coordinated by Meewasin, the overall project manager. The design process included collaboration with various civic divisions. Communications included an open house meeting in May 2016, a presentation to the City Park Community Association Executive in June 2016, and an information package delivered to area households this spring. Construction of the project began in April 2017, and will be completed this summer.

Upgrades to Meewasin Trail – Children’s Discovery Museum to Riverworks Weir

Other Considerations/Implications

There are no options, policy, environmental or privacy implications or considerations at this time.

Public Notice

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

Attachments

1. March 6, 2017 Report of the General Manager, Community Services Department

Report Approval

Written and

Approved by: Randy Grauer, General Manager, Community Services Department

S/Reports/2017/PD/EUCS – Upgrades to Meewasin Trail/dh

Upgrades to Meewasin Trail – Children’s Discovery Museum to Riverworks Weir

Recommendation

That the Standing Policy Committee on Planning, Development and Community Services recommend to City Council:

1. That the proposed trail upgrades be endorsed; and
2. That the City Solicitor be requested to add the proposed upgrades, as outlined in this report, to Schedule C of the operating agreement between the City of Saskatoon and Meewasin Valley Authority, dated October 31, 2007.

Topic and Purpose

The purpose of this report is to request City Council’s support for proposed upgrades to a section of the Meewasin Trail between the Children’s Discovery Museum and Riverworks Weir.

Report Highlights

1. A Trail Study conducted by the Meewasin Valley Authority (Meewasin) identified the section of the Meewasin Trail (Trail) that connects the Children’s Discovery Museum (CDM), formerly Mendel Art Gallery, to Riverworks Weir as the “highest priority” for improvement due to its substantial traffic volume.
2. Meewasin is proposing to upgrade this section of the Trail. The upgrade consists of trail widening, accessibility enhancements, additional benches, garbage receptacles, and new lookouts.
3. The proposed trail upgrades will result in an operating impact for the Parks and Facilities and Fleet Management Divisions, estimated to be \$6,500 per year, plus winter maintenance, which will be tendered to contractors through the Public Works Division.

Strategic Goals

As the Trail is an important facility in the city for active transportation and passive recreation, upgrades to the Trail support the City of Saskatoon’s (City) long-term strategic goals of Moving Around and Quality of Life.

Background

In 2014, Meewasin conducted an assessment of the Trail infrastructure. This study involved an evaluation of the condition of the existing trail system based on a number of criteria, including capacity/width, surface condition, accessibility, vegetation overgrowth, erosion, drainage, etc. Trail segments requiring replacement or upgrade were identified and prioritized. Starting in 2015, the City increased its funding contribution to Meewasin by \$250,000 to specifically support the upgrade and/or replacement of trails.

Report

Proposed Improvement Plans

The trail assessment identified the section of the Trail between the CDM and Riverworks Weir as the “highest priority” for upgrades by Meewasin, due in part to the high volume of pedestrian and cyclist traffic. Meewasin has submitted plans to enhance this section of trail (see Attachment 1).

Proposed Upgrades

Proposed upgrades include:

- a) widening the trail to 4 metres, with the land mass expanded to allow for a further widening to 6 metres in the future, to reduce congestion and accommodate growth in trail use;
- b) increasing measures to ensure accessibility, such as limiting grades to a maximum of 5% and installing an accessibility ramp at Queen Street and Spadina Crescent;
- c) installing benches and waste receptacles; and
- d) creating new lookout nodes.

Meewasin will also be coordinating with the Public Works Division regarding extending an existing outfall structure, and with Saskatoon Light and Power for an upgraded power pole that will be located at Queen Street and Spadina Crescent. These infrastructure upgrades are required in order to support the proposed upgrades to the Trail.

Operating Agreement

A joint agreement outlining construction, maintenance, and operation responsibilities for the Trail was signed by the City and Meewasin on October 31, 2007 (see Attachment 2). This document prescribes the roles and responsibilities of both parties as they pertain to facility replacement, new construction, and facility maintenance. Subject to the endorsement of this plan, Schedule C of this agreement should be amended to include the section of the Trail identified for upgrades.

Public and/or Stakeholder Involvement

The City has been involved in the planning for this project, in a technical capacity, with representation from all potentially affected divisions. Upon formal receipt of Meewasin’s Trail upgrade proposal, the plans were circulated internally, and comments were provided by affected civic departments. Any issues identified during this review will need to be addressed by Meewasin prior to construction commencing.

Meewasin managed a public consultation process, which included a public open house (May 19, 2016), a presentation at the public portion of Meewasin’s Board meeting (June 3, 2016), and a presentation to the City Park Community Association (June 26, 2016).

Financial Implications

The estimated cost of the Trail upgrade project is \$683,866, funded by Meewasin.

The cost of the power pole upgrade is estimated at \$165,000, with Meewasin paying approximately \$90,000 and Saskatoon Light and Power paying the remainder. The cost of the storm sewer outfall structure extension is included in the Trail upgrade project budget and will be funded by Meewasin. Both projects are proposed to be advanced in coordination with the Trail upgrade and will replace aging infrastructure.

As a result of the proposed upgrades, combined annual operating costs for the Parks and Facilities and Fleet Management Divisions for this section of Trail are projected to increase by approximately \$6,500. This does not include an estimate for winter maintenance; however, Meewasin has indicated that with the lower volume of trail use in winter, the current level of snow clearing is sufficient. As trail volumes increase and more of the Trail is widened in the future, Meewasin and the City may wish to coordinate a higher level of service with a wider path cleared of snow.

Safety/Crime Prevention Through Environmental Design (CPTED)

This project has been reviewed by the CPTED Review Committee with no immediate concerns being raised. Meewasin will notify the CPTED Review Committee of any changes to the designs, and will work with the committee to resolve any recommendations that may arise from the CPTED Review report on the area.

Other Considerations/Implications

There are no options, policy, environmental, or privacy implications or considerations; a communication plan is not required at this time.

Due Date for Follow-up and/or Project Completion

Construction for this project will start in summer 2017, subject to all technical conditions being met.

Public Notice

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

Attachments

1. Meewasin Valley Authority – Meewasin Trail Upgrades
2. City of Saskatoon/Meewasin Valley Authority - Meewasin Trail Operating Agreement

Report Approval

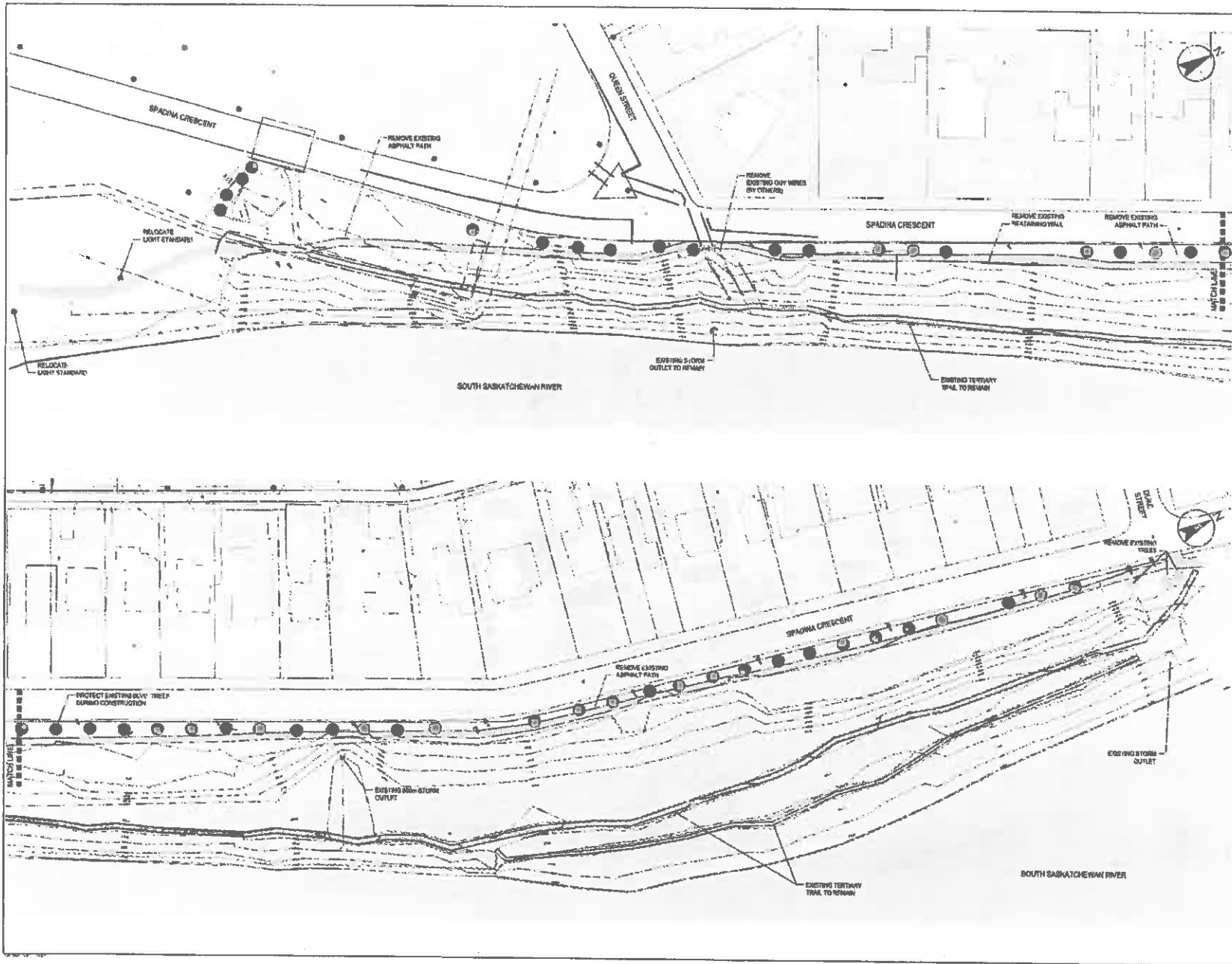
Written by: Tyson McShane, Long Range Planning Section, Planning and Development

Reviewed by: Lesley Anderson, Director of Planning and Development

Approved by: Randy Grauer, General Manager, Community Services Department

Jeff Jorgenson, General Manager, Transportation and Utilities Department

Meewasin Valley Authority - Meewasin Trail Upgrades



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 100-15 2nd Street East
 Saskatoon, Saskatchewan S7N 3A3
 Tel: 306.944.3800
 www.stantec.com

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Consultants

Legend

Notes

**PRELIMINARY
 NOT FOR
 CONSTRUCTION**

Revision	No.	Date	By	Check
1	1	11/11/11	...	...
2	2	11/11/11	...	...
3	3	11/11/11	...	...
4	4	11/11/11	...	...
5	5	11/11/11	...	...
6	6	11/11/11	...	...
7	7	11/11/11	...	...
8	8	11/11/11	...	...
9	9	11/11/11	...	...
10	10	11/11/11	...	...

Permit Sign

Client/Project
MEEWASIN VALLEY AUTHORITY
MEEWASIN TRAIL UPGRADE
PHASE 1
 Saskatoon, Saskatchewan

Title
EXISTING CONDITIONS

Project No. 113154626	Scale AS SHOWN
Drawing No. [L-]	Sheet 2 of 9
	Revision 0

Consultants

Legend

Notes

**PRELIMINARY
NOT FOR
CONSTRUCTION**

Revision	By	Appr.	Y/M/D
5. REVISION FOR REVIEW	AK	CF	17/01/15
4. REVISION FOR REVIEW	EC	CF	14/06/14
3. REVISION FOR REVIEW	EC	CF	14/06/14
2. REVISION FOR REVIEW	EC	CF	14/06/14
1. REVISION FOR REVIEW	EC	CF	14/06/14

File Name	Drawn	Checked	Design	Y/M/D

Permit Sect

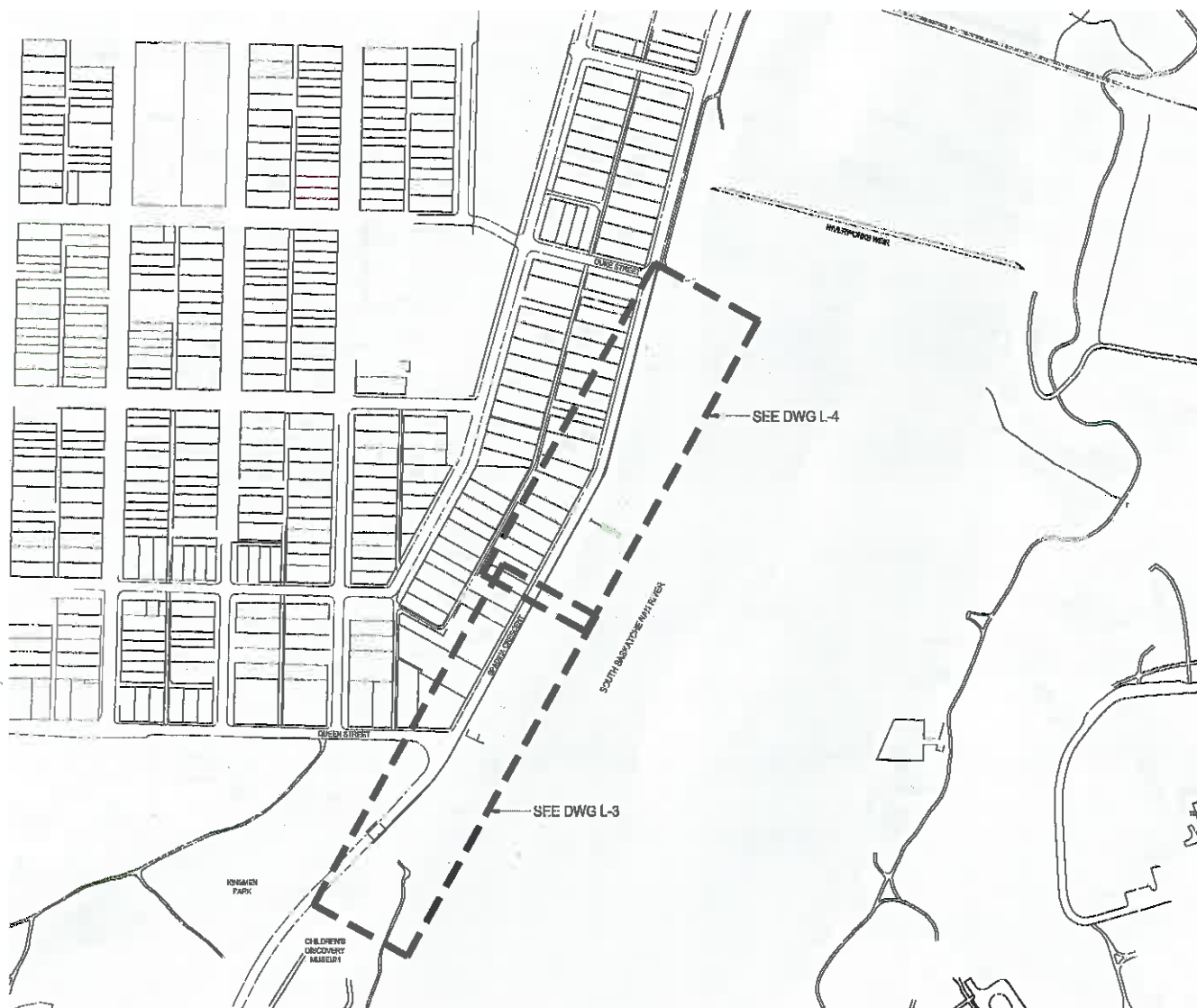
Client/Project
MILLWASIN VALLEY AUTHORITY

MILLWASIN TRAIL UPGRADE
PHASE 1
Saskatoon, Saskatchewan

Title
OVERALL SITE PLAN

Project No.	Scale
113154626	AS SHOWN

Drawing No.	Sheet	Revision
L-2	3 of 9	0 2





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 www.stantec.com

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Legend

- BENCH
- WASTE RECEPTACLE
- CONCRETE SLAB
- FENCING FENCE
- EDGE OF EXISTING BUSH
- EDGE OF SHOULDER
- ▨ EXTENT OF VEGETATION REMOVAL
- RETAINING WALL

Notes

**PRELIMINARY
NOT FOR
CONSTRUCTION**

Revision	By	App'd	TRAM/DO
2	IA	CP	1/25/13
4	IA	CP	1/26/13
3	IA	CP	1/26/13
2	IA	CP	1/26/13
1	IA	CP	1/24/13

File Name	Drawn	Checked	Design	TRAM/DO

Permit/Seal

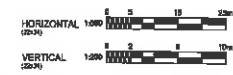
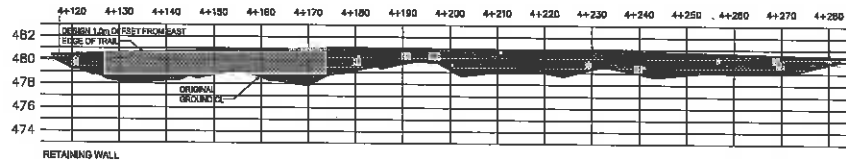
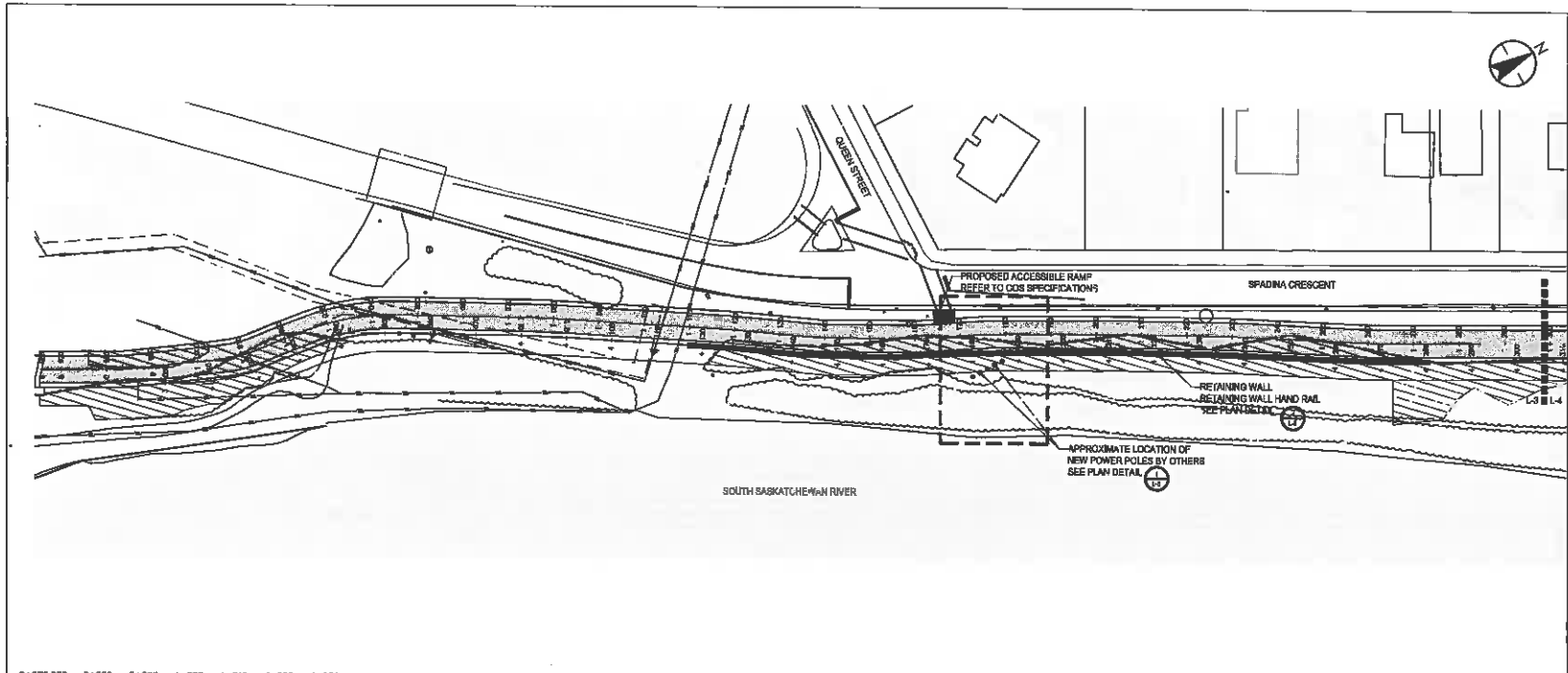
Client/Project
MEEWASIN VALLEY AUTHORITY

 MEEWASIN TRAIL UPGRADE
 PHASE I
 Saskatoon, Saskatchewan

Title
**PRIMARY TRAIL
 PLAN AND PROFILE**

Project No.	Scale
113154626	AS SHOWN

Drawing No.	Sheet	Revision
L-3	4 of 9	0



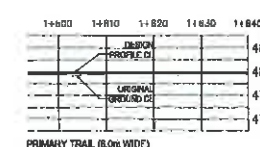
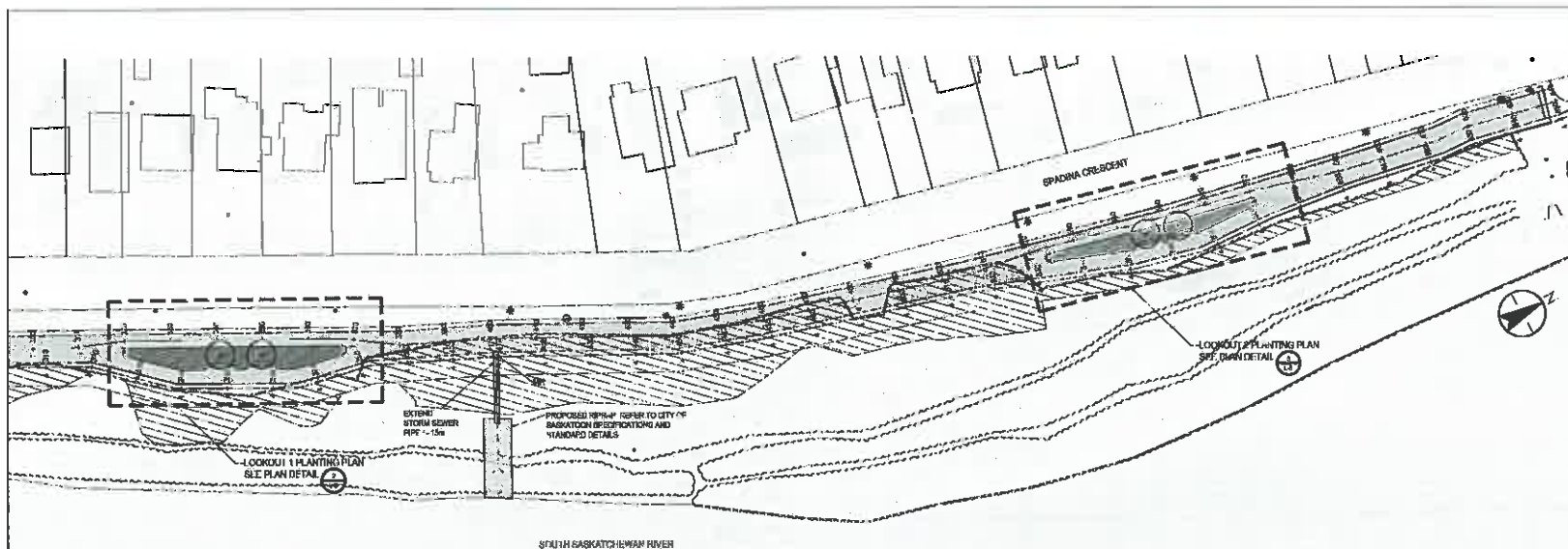
Consultants

Legend

- BEIGH
- EXISTING PAVED DRIVE
- CONCRETE SLAB
- EXISTING TREE
- EDGE OF EXISTING BUSH
- EDGE OF SHOULDER
- EXTENT OF VEGETATION REMOVAL

Notes

**PRELIMINARY
NOT FOR
CONSTRUCTION**



Revision	By	Appd.	Y/M/D
1. BRIDG FOR REVIEW	MC	CP	17/07/13
2. BRIDG FOR REVIEW	MC	CP	16/06/14
3. BRIDG FOR REVIEW	MC	CP	16/05/15
4. BRIDG FOR REVIEW	MC	CP	16/04/16
5. BRIDG FOR REVIEW	MC	CP	16/04/14

Permit	Drawn	Checked	Design	Y/M/D
Permit				17/04/20

Client/Project
MEEWASIN VALLEY AUTHORITY
**MEEWASIN TRAIL UPGRADE
PHASE 1**
Saskatoon, Saskatchewan

Title
**PRIMARY TRAIL
PLAN AND PROFILE**

Project No. 113154626 Scale AS SHOWN

Drawing No. L-4 Sheet 5 of 9 Revision 0

City of Saskatoon/Meewasin Valley Authority - Meewasin Trail Operating Agreement

Agreement

This Agreement made effective this 31 day of October, 2007.

Between:

The City of Saskatoon, a municipal corporation pursuant to the provisions of *The Cities Act*, S.S. 2002, Chapter C-11.1 (the "City")

- and -

Meewasin Valley Authority, a body corporate pursuant to the provisions of *The Meewasin Valley Authority Act*, S.S. 1979, Chapter M-11.1 (the "MVA")

Introduction

- A. The City is responsible for the provision of recreational facilities, park space and amenities both within the confines of the City of Saskatoon and in areas adjacent to the City of Saskatoon.
- B. The MVA is a conservation organization dedicated to conserving the natural and cultural heritage resources of the South Saskatchewan River Valley in Saskatoon and area.
- C. With the support of the City, the Province of Saskatchewan, the University of Saskatchewan and corporate and individual donors the MVA undertakes programs and projects in river valley education, development and conservation.
- D. The City and the MVA work cooperatively to identify, develop and maintain several recreational and conservation projects or works within or adjacent to the Meewasin Valley Trail system, and wish to confirm respective areas of responsibility for any such projects or works.
- E. In entering into this Agreement, the Parties are replacing all former maintenance agreements listed in Schedule "D" and the master agreement in relation to the Meewasin Valley Trail dated April 27, 1982, a copy of which is attached to this Agreement as Schedule "A".

The City and the MVA now therefore agree as follows:

Definitions

1. The Parties agree that the following terms will have the following meaning:
 - (a) "Capital Reserve Bylaw" means Bylaw No. 6744 for The City of Saskatoon, or such successor legislation, that codifies the creation of a reserve fund for the purpose of financing capital expenditures authorized by the Council for The City of Saskatoon;
 - (b) "Completion Date" means that date on which construction or installation of a project or work has been substantially completed or performed, as that term is defined in *The Commercial Liens Act*, and as verified, in writing, by the City and the MVA, in accordance with section 3(1);
 - (c) "Facility" means the Meewasin Valley Trail, any Park Amenities, and any recreational or conservation project or work within the Meewasin Valley Trail system or the Saskatchewan River Valley that is developed, maintained and repaired or replaced in accordance with this Agreement;
 - (d) "Facility Maintenance" means the ongoing day-to-day care and protection of any project or work as further described in section 3;
 - (e) "Facility Replacement" means the life cycle replacement of any Facility including:
 - (i) the periodic replacement of signs, sign posts, bollards, lighting and park furniture;
 - (ii) the periodic replacement of the surface of the Meewasin Valley Trail and parking lots, curbs, drainage works, retaining walls, steps, bridges, sidewalks and similar structures and permanent fencing; and
 - (iii) the periodic repair of parts of Park Buildings, including windows, furnaces, wiring, plumbing, roofing, siding and fixtures, painting and varnishing as required, but does not include the complete replacement of a Park Building;

- (f) "Meewasin Valley Trail" means:
- (i) an asphalt or crusher dust recreational trail along the banks of the South Saskatchewan River, and as shown, as of the date of this Agreement, on the enclosed map attached as Schedule "B" to this Agreement, and any additions thereto;
 - (ii) pedestrian access paths from the sidewalks and vehicle bridges;
 - (iii) supported pathways and pedestrian bridges where required;
 - (iv) drainage works and retaining structures necessary for the structural safety of the paths and slopes;
 - (v) related landscaping;
 - (vi) lighting, park furniture, signage, fencing and bollards;
 - (vii) roadway interconnections and parking lots; and
 - (viii) park buildings;
- (g) "Park Amenities" means playground and fitness apparatus, bicycle parking racks, picnic pads, picnic tables, park benches, barbecues, waste receptacles, drinking fountains and other similar objects;
- (h) "Park Building" means shed, warm-up facility, recreational facility, washroom facility and other similar structures within or adjacent to the Meewasin Valley Trail;
- (i) "Utility Services" means water, light, power or gas and includes any instruments employed for their provision, in addition to any sewer, sewage system or other similar system.

Initiating a New Facility

2. (1) Either Party wishing to initiate the development of a new Facility or addition or alteration to an existing Facility, will provide the other with notice in writing with respect to the new Facility, proposed or otherwise, and will set out in its notice the following: the location of the Facility, the target or goals of the Facility, the cost and construction parameters of the Facility, the

funding of the construction, the estimated start and completion dates, and a request that the Facility be brought within the confines of this Agreement.

- (2) Upon agreement between the Parties that the new Facility can proceed according to the terms of this Agreement, the MVA will be solely responsible for the design, construction and installation of the Facility, including, without limiting the foregoing: retaining the services of any design firm or consultant; the costs of design, construction and installation; Utility Services; seeking and obtaining regulatory approval; and seeking agreement from the owner of the land. The Facility will be listed and described in the attached Schedule "C", as amended from time to time.
- (3) If the new Facility is one that will qualify under The Capital Reserve Bylaw, the City will advise the MVA, and the City will make the requisite contributions to the reserve.

Facility Maintenance

3. (1) The MVA will be responsible for any Facility Maintenance during the period of construction, if required, and for a period of 30 days after the Completion Date. For the purposes of this Agreement, Facility Maintenance includes, without limiting the foregoing, the following:
 - (i) the regular care of plant material including watering, fertilizing, weeding, spraying, re-seeding, mowing and pruning;
 - (ii) the installation of stakes, wiring or temporary fences, including snow fences for the protection of plant material;
 - (iii) the removal of dead plants and their replacement where necessary;
 - (iv) the removal of snow and sanding of the Meewasin Valley Trail, including accesses, roadways, paths and parking lots as required;
 - (v) the removal of garbage from waste receptacles and regular cleaning of barbeque grills and ash removal;
 - (vi) the removal of park litter along the Meewasin Valley Trail; and

- (vii) the periodic repair of MVA signage, sign posts, bollards, lighting, park furniture and water fountains.
- (2) Upon completion of construction, the MVA and the City, acting reasonably, will verify in writing the Completion Date of the Facility.
- (3) No later than thirty days after the Completion Date, the City will assume ownership and control of the Facility and be responsible for the Facility, Utility Services, and Facility Maintenance.
- (4) Notwithstanding the City's ownership and duty for Facility Maintenance, the MVA will provide the following warranties as to fitness and quality of any Facility:
 - (a) in the case of all plant material, that all are of good quality and suited to the environment and that if any are found wanting the MVA will replace or pay for the replacement of any dead, diseased or dying plant material for a period of 36 months from the Completion Date; and
 - (b) in the case of any other aspect of a Facility, that it conforms to all plans and specifications and is free from deficiencies and that if any are found wanting the MVA will replace or pay for the replacement of any deficiency or defective part of a Facility for a period of 12 months from the Completion Date.
- (5) The City agrees that the warranty will be voided if the City fails to adequately maintain any aspect of a Facility.

Facility Replacement

- 4. (1) Subject to this section, the City will pay the costs of any Facility Replacement. The necessity of any Facility Replacement shall be determined jointly by the City and the MVA, acting reasonably.
- (2) The City and the MVA will determine whether any Park Building needs to be replaced. It is the expectation of the parties that the costs of any such capital project will be shared equally.
- (3) The trail surfaces for the Meewasin Valley Trail will require periodic major repair or maintenance and the Parties agree each will contribute equal funds,

when and if available, on a yearly basis that will be used to make the requisite repairs and perform the required maintenance to the trail surface.

Confirming Scope of Agreement

5. The Parties agree that this Agreement will replace the Master Agreement dated April 27, 1982, and the Parties further agree that Schedule "A" is included only for reference.

Addition of Existing Facilities to this Agreement

6. The Parties agree that any existing Facility, evidenced by a separate agreement, is confirmed and replaced in accordance with the terms of this Agreement by identifying any such project or work in the list of projects and works attached to this Agreement as Schedule "D". The Parties agree that Schedule "D" may be amended from time to time.

General Terms and Conditions

7. (1) All notices, demands, requests, elections or other communications (collectively, "Notices") required or permitted to be given by either party to the other pursuant to this Agreement shall be in writing and shall be either personally delivered or transmitted by first-class registered or certified mail, postage prepaid, return receipt requested, or by prepaid overnight private courier service, addressed as follows:

To the MVA:

402 3rd Avenue South
Saskatoon, Saskatchewan
S7K 3G5
Attention: Director of Operations

To the City:

c/o Office of the City Solicitor
222 3rd Avenue North
Saskatoon, Saskatchewan
S7K 0J5

Personally delivered Notices shall be effective upon receipt; mailed Notices shall be effective on the earlier of four days after first being postmarked in Canada or such earlier date on which they are actually received or on which acceptance of delivery thereof is refused; Notices transmitted by courier shall be effective on the date they are actually delivered or on the date acceptance of delivery thereof is refused. The Parties and any other party entitled to receive Notices or copies thereof shall be entitled to change the address to which the same shall be delivered or mailed by giving notice of such change of address in the manner provided for the giving of other Notices.

- (2) Each of the Parties acknowledges and agrees that no representation, warranty, promise, inducement, covenant, agreement or other assurance of any nature whatsoever which is not specifically set forth in this Agreement has been made by or to, or has been or hereafter will be relied upon by, either of the Parties or any officer, director, shareholder, partner, principal, agent, representative, lawyer or other person acting for or on behalf of either Party.
- (3) Those provisions of this Agreement which, by their nature or by the specific terms thereof, require either or both of the Parties to perform or refrain from certain acts, actions or activities subsequent to the termination or expiration of this Agreement will survive such termination or expiration and will be fully enforceable thereafter in accordance with the purposes and intentions thereof.
- (4) No delay or omission on the part of either Party to assert or attempt to enforce any right or privilege will be deemed to be a waiver of such right or privilege or any other right or privilege for a purpose or to any extent whatsoever.
- (5) Time will be of the essence in this Agreement.
- (6) This Agreement will be construed, interpreted and enforced in accordance with the substantive laws of the Province of Saskatchewan and the federal laws of Canada without giving effect to principles of conflicts of laws.

Agreement Binding

8. This Agreement, and each and every provision, will be binding upon, shall inure to the benefit of and will be enforceable by and against the Parties and their respective successors, successors in interest and permitted assigns.

Entire Agreement

9. This Agreement supersedes in all respects all prior and contemporaneous oral negotiations and agreements, and all prior written agreements between the Parties with respect to the subject matter hereof, including, without limitation, the contemporaneous negotiations and agreements, if any.

Amendments

10. This Agreement will not be amended, modified, supplemented or altered except by a written agreement executed by the Parties.

The City of Saskatoon



Mayor



City Clerk

c/s

Meewasin Valley Authority



c/s



Schedule "A"
THIS AGREEMENT made in duplicate this 27th day of April
A.D., 1982.

BETWEEN THE CITY OF SASKATOON, a municipal corporation within
the meaning of The Urban Municipality Act, R.S.S.
1978, c. U-10,
(hereinafter called "the City"),

- and -

THE MEEWASIN VALLEY AUTHORITY, a body corporate pursuant
to the provisions of The Meewasin Valley Authority Act,
R.S.S., 1978, c.U-11.1,
(hereinafter called "the Authority").

WHEREAS both the City and the Authority wish to enter into an
Agreement to provide for the implementation of the Meewasin Valley
Trail, and

WHEREAS both the City and the Authority are agreed that said implementa-
tion is a purpose relating or incidental to Meewasin Valley within the
meaning of Section 69(1)(a) of The Meewasin Valley Authority Act;

NOW THEREFORE, in consideration of the mutual covenants hereinafter
contained, the City and the Authority agree as follows:

1. the Parties agree that, for the purposes of this Agreement:

a) "Meewasin Valley Trail" means:

- i) a 2500 mm wide asphalt path along the East Bank
of the River in Saskatoon from Rotary Park to the
42nd Street Bridge, and along the West Bank of the
of the River from 11th Street West to Pinehouse Drive;
- ii) pedestrian access paths from the sidewalks and the
vehicle bridges;
- iii) supported pathways and pedestrian bridges where required;
- iv) drainage works and retaining structures necessary
for the structural safety of the paths and slopes;
- v) related landscaping;

- vi) lighting, park furniture, signs, fencing and bollards;
- vii) roadway interconnections and parking lots;
- viii) park shelters;

b) "facility operation" means care and protection of the Meewasin Valley Trail including:

- i) the regular care of plant material including watering, fertilizing, weeding, spraying, reseeding, cutting and pruning;
- ii) protecting plant material using stakes, wires, or temporary fences;
- iii) removal of dead plants and their replacement with new plants where necessary;
- iv) snow clearing and sanding of the Meewasin Valley Trail accesses;
- v) installation of temporary fences such as snow fences and fences for protection of plant material;
- vi) regular removal of garbage from waste receptacles;
- vii) regular park cleaning of litter along the Meewasin Valley Trail;

c) "facility maintenance" means repair and replacement of the Meewasin Valley Trail including:

- i) periodic repair and/or replacement of signs, sign posts, bollards, lighting and park furniture;
- ii) periodic repair of the surface of the trail and parking lots, curbs, drainage works, retaining walls, steps, bridges and similar structures and permanent fencing;
- iii) periodic repair and maintenance of park shelters;

2. prior to construction, all final plans and specifications for facility and landscape construction to be performed on land owned by the City shall be approved, in writing, by a representative of the City and a representative of the Authority;

3. the Authority agrees that it shall be solely responsible for the design and construction of all landscaping and facilities included in the Meewasin Valley Trail project and that such design and construction shall be completed

in 1982 in so far as possible and in any event not later

than October 1, 1983;

4. the costs for design and construction shall be the sole responsibility of the Authority and shall include the following:

a) design costs;

b) construction costs for facilities as specified in approved plans including the supply and installation of:

i) asphalt paths;

ii) trail structures such as ramps, stairways, retaining walls, bridges and elevated walks;

iii) new drainage works related to the trail projects;

iv) trail signs, fences, bollards;

v) trail lighting;

vi) parking lots and access roads;

vii) park furniture such as tables, benches and picnic facilities;

viii) park shelters;

ix) irrigation systems;

x) rough grading, fine grading, topsoil placement and the initial installation of plant materials related to the trail project;

c) supervision of construction contracts;

d) such other public amenities as may be agreed to by the Parties hereto;

5. the completion of each portion of the Meewasin Valley Trail shall be verified in writing by a representative of the City and a representative of the Authority and from that time onward the City shall have sole ownership and control of any and all facilities constructed pursuant to this Agreement on land owned by the City;

6. the City agrees that it shall be responsible for carrying out all ongoing facility operation of the Meewasin Valley Trail on land owned by the City at the expense of the City;

7. the costs for utilities shall be the responsibility of the City and such costs shall include, without limiting the generality of the foregoing:

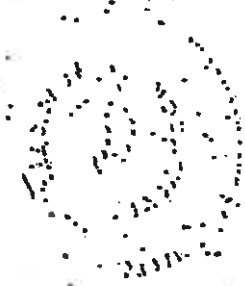
- b) water for use in drinking fountains and park irrigation;
8. the Parties hereto agree to share equally the costs for performing facility maintenance; such costs to be estimated by the City annually in advance and conveyed to the Authority by the City before December 31st each year;
9. this Agreement shall operate as and from April 27, 1982 and thereafter until terminated by either of the Parties hereto at the end of the next calendar year by giving written notice to that effect to the other Party not later than the thirty first day of December in any year.

IN WITNESS WHEREOF the Parties hereto have hereunto affixed their respective corporate seals, attested by the hands of their respective officers duly authorized in that behalf.

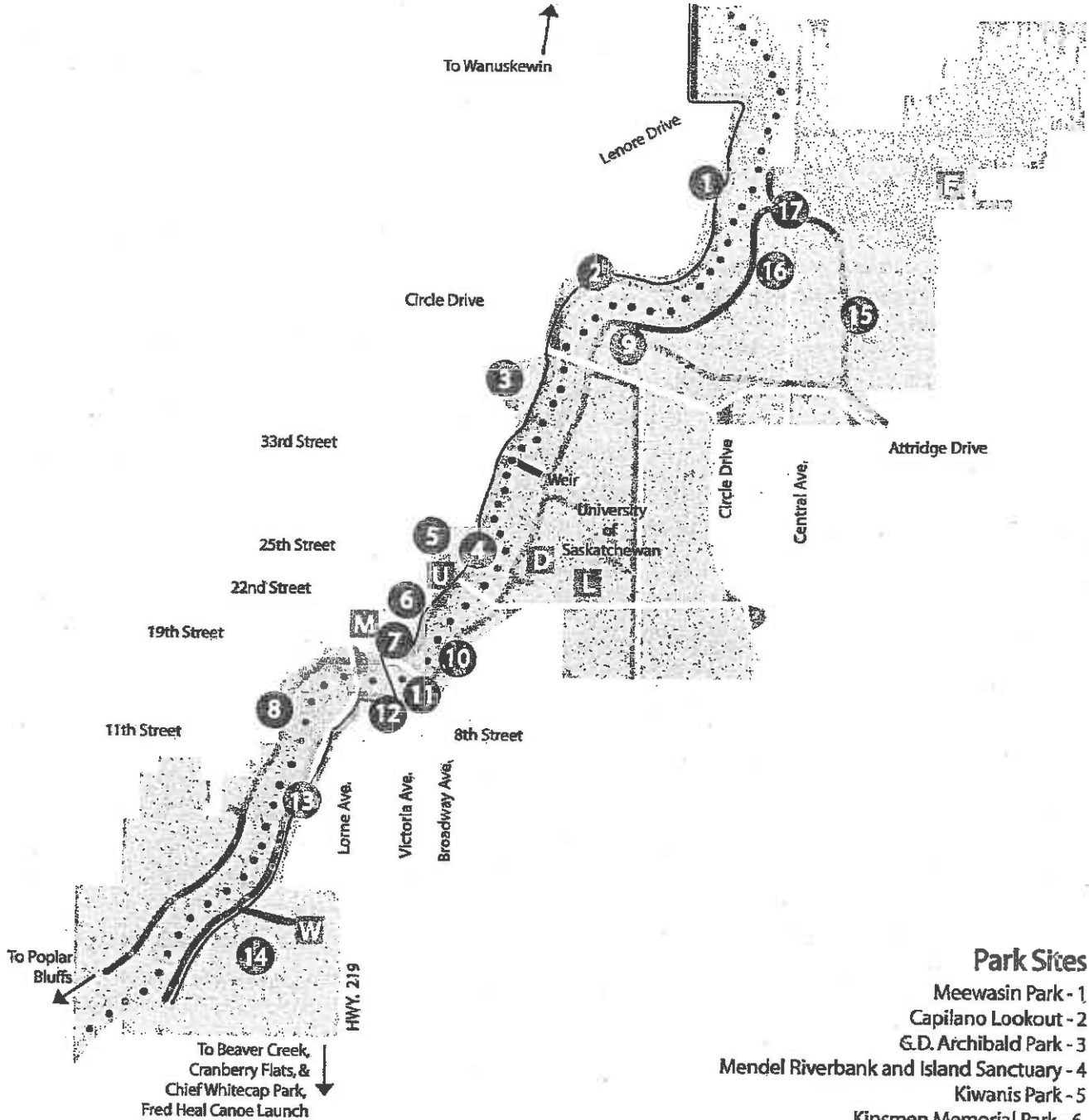
THIS AGREEMENT made in duplicate this 27th day of APRIL A.D., 1982.

CITY OF SASKATOON
[Signature]
MAYOR (title)
[Signature]
CITY CLERK (title)

NEEWASIN VALLEY AUTHORITY
[Signature]
(title)
[Signature]
(title)



Meewasin Valley Trail Map



Legend

- Western Development Museum
- Ukrainian Museum of Canada
- Diefenbaker Canada Centre
- Little Stone School House
- Forestry Farm Park & Zoo
- Meewasin Valley Centre

- EcoCanoe Tour
- Existing Trail
- Future Trail
- Trans Canada Trail

Park Sites

- Meewasin Park - 1
- Capilano Lookout - 2
- G.D. Archibald Park - 3
- Mendel Riverbank and Island Sanctuary - 4
- Kiwanis Park - 5
- Kinsmen Memorial Park - 6
- Friendship Park - 7
- Victoria Park / Boathouse - 8
- Sutherland Beach - 9
- Cosmopolitan Park / Lookout - 10
- Rotary Park and Lookout - 11
- The Marr Residence - 12
- Gabriel Dumont Municipal Reserve - 13
- Diefenbaker Park and Pioneer Cemetery - 14
- Saskatoon Natural Grasslands - 15
- Prairie Nature Centre - 16
- Petturson's Ravine - 17

Schedule "C"

List of Facilities (2005)

"Agreements"	
Project	Date Approved by Council
Mcewasin Valley Trail Extension Spadina Crescent South to former Sanitorium	May 3, 2004
Seven Seating Areas, West bank	May 17, 2004
Kiwanis Park - Vimy Memorial Site Upgrades	May 17, 2004

Schedule "D"

List of Existing Facilities

"Maintenance Agreements"		
Project	Date	Comments
Meewasin Valley Trail	27-Apr-82	original trail East Bank from Rotary Park to 42nd St Bridge, and West Bank from 11th St. W. to Pinehouse Drive; plus amenities and connections
Meewasin Valley Trail Amendment #1 Upper Cosmo Link	30-Aug-85	
Meewasin Valley Trail Amendment #2 Broadway Bridge to Cosmo Lookout	31-Oct-86	
Meewasin Valley Trail Amendment #3 Whiteswan Buffer	31-Oct-86	
Meewasin Valley Trail Amendment #4 Meewasin Valley Centre Link	04-Jul-89	
Meewasin Valley Trail Amendment #5 Spadina Cres south of Victoria Park	12-Sep-91	utility corridor clause
Meewasin Valley Trail Amendment #6 Cosmo trail extension and plaza	13-Apr-92	
Meewasin Valley Trail Amendment #6 (sic) Northeast Sector Trail	03-May-96	
Meewasin Valley Trail Amendment #7 Deifenbaker Park link	2000	agreement unexecuted
Meewasin Park	29-Jul-82	
Park Furniture	29-Jul-82	
Beaver Creek	07-Sep-82	building operations & maintenance to Meewasin
Victoria Park	10-Nov-83	
Slope Monitors	07-Oct-85	City agrees to monitor and provide reports to Meewasin
Cosmo Park special interpretive feature	15-Oct-85	
Mendel Riverbank	25-Apr-86	
Cranberry Flats	01-Dec-86	
Victoria Park Amendment Lighting	14-Oct-88	
Gabriel Dumont Park	12-Jul-95	
Rotary Park East	12-Jul-95	
Spadina Crescent Promenade Extension	12-Jul-95	
Kiwanis Memorial Park WWII Fountain	12-Jul-95	
Rotary Park East Peace Plaza	20-May-98	east peace plaza slumped into the river, rebuilt on west side of park
Weir redevelopment	12-Oct-00	
Gabriel Dumont Park Amendment	24-May-01	
Riverfront, River Landing	06-May-05	

Initiatives to Support Energy-Efficient Building Standards in Residential Construction

Recommendation

That the information be received.

Topic and Purpose

The purpose of the report is to provide a summary of the progress to date of the energy efficiency working group, an update on the status of the provincial adoption of energy codes, and an overview of the next steps toward achieving energy efficiency performance gains in residential construction.

Report Highlights

1. An energy efficiency working group (working group) was established to evaluate and identify opportunities to achieve sustainable energy-efficient performance gains for new and existing residential construction.
2. In collaboration with a broad range of stakeholders, the Administration has developed possible solutions to achieve energy-efficient performance gains in new residential construction, while supporting the needs of industry.
3. Provincial adoption of the National Energy Code of Canada for Buildings 2015 (NECB 2015) and National Building Code of Canada 2015 (NBC 2015), Section 9.36 Energy Efficiency, are proposed for July 1, 2017, with full implementation on January 1, 2019.
4. Proposed solutions for achieving energy-efficient performance gains within the residential sector will be addressed through existing initiatives and, where appropriate, through separate reports.

Strategic Goal

This report supports the City of Saskatoon's (City) Strategic Goal of Environmental Leadership by providing information related to the development of programs and practices that support energy-efficient building practices.

Background

The Building Standards and Environmental and Corporate Initiatives Divisions provided information reports to City Council on September 28, 2015, and to the Standing Policy Committee on Environment, Utilities and Corporate Services on April 11, 2016, related to energy-efficient building standards in new dwelling construction, building code adoption, the effectiveness of energy rating programs, and energy efficiency retrofit program options.

The working group, comprised of members from the Saskatoon & Region Home Builders' Association (Home Builders' Association), SaskPower, SaskEnergy, the

Saskatoon Region Association of Realtors, the Association of Saskatchewan REALTORS®, and the City's Environmental and Corporate Initiatives and Building Standards Divisions, was formed with the goal of creating a sustainable energy program aligned with the City's energy performance goals and supported by the industry as they relate to new residential construction.

Report

Working Group Review

The overall goal of the working group is to evaluate and identify opportunities to achieve building energy efficiency performance gains for new dwelling construction in Saskatoon, while:

- a) providing alignment with the City's energy performance goals;
- b) minimizing barriers to the building industry; and
- c) ensuring compatibility with future residential building energy retrofit opportunities.

Possible Solutions to Achieve Goals

The working group engaged in discussions with a broad range of stakeholders to identify possible solutions. A summary of the discussions and possible solutions has been prepared in Attachment 1.

The Administration reviewed the solutions and ideas provided by stakeholders and prepared a summary detailing how proposed solutions can be addressed through existing initiatives, while others will be addressed through separate reports (see Attachment 2).

Energy Code Adoption and Builder Capacity

The Government of Saskatchewan recently announced that adoption of the NECB 2015 and NBC 2015, Section 9.36 Energy Efficiency, is proposed for July 1, 2017, with full implementation on January 1, 2019. The Building Standards Division is working with industry partners and has developed an implementation plan to support the building industry (see Attachment 2).

Proposed Solutions to be Addressed through Separate Reports

1. Energy Performance Literacy – Consumer demand for energy efficiency is currently considered a niche market. Stakeholders agreed there is a role for the City in a program of education and technical assistance. Program options will be explored in a report to the Standing Policy Committee on Environment, Utilities and Corporate Services in the fall of 2017.
2. EnerGuide Rating Systems and Incentivized Energy Performance Programs - As outlined in Attachment 2, the Environmental and Corporate Initiatives Division will report on the effectiveness of various environmental incentive programs in the fall of 2017.

Public and/or Stakeholder Involvement

The working group met on a monthly basis and participated in several engagement opportunities within the building construction and real estate industries as well as participating in learning opportunities related to energy rating systems.

Engagement opportunities were held for members from the Home Builders' Association, Saskatoon Region Association of Realtors, and Association of Saskatchewan REALTORS®. These engagements provided members with the opportunity to share perspectives on the residential construction and real estate market in relation to building energy performance and to collaboratively identify possible solutions to achieve building energy efficiency performance gains for new dwelling construction in Saskatoon. Over 75 stakeholders participated in the membership discussions.

Stakeholders included representatives from:

- a) land developers;
- b) residential builders;
- c) residential and commercial realtors;
- d) utility providers; and
- e) Natural Resources Canada.

Stakeholders were also provided with the option of meeting individually with the Administration to share their perspectives or submit comments in writing.

Other Considerations/Implications

There are no policy, financial, environmental, privacy, or CPTED implications or considerations; a communication plan is not required at this time.

Due Date for Follow-up and/or Project Completion

Individual aspects of the Energy Efficiency Working Group Summary will be addressed in a variety of separate reports as indicated or incorporated into reporting on other initiatives.

Public Notice

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

Attachments

- 1. Energy Efficiency Working Group Summary
- 2. Proposed Solutions for Achieving Energy Efficiency Performance Gains

Report Approval

Written by: Kara Fagnou, Director of Building Standards
Brenda Wallace, Director of Environmental and Corporate Initiatives
Reviewed by: Catherine Gryba, General Manager, Corporate Performance Department
Approved by: Randy Grauer, General Manager, Community Services Department

City of Saskatoon

Energy Efficiency Working Group Summary

March 2017

Table of Contents

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1.0 Introduction

1.1 Energy Efficiency Working Group

The Energy Efficiency Working Group (working group) was formed in May 2016. The working group is a collaborative partnership comprised of members from the Saskatoon & Region Home Builders' Association (Home Builders' Association), SaskPower, SaskEnergy, Saskatoon Region Association of Realtors, Association of Saskatchewan REALTORS®, and the City of Saskatoon's (City) Environmental and Corporate Initiatives and Building Standards Divisions.

1.2 Goals of the Working Group

The overall goal of the working group is to evaluate and identify opportunities to achieve building energy efficiency performance gains for new dwelling construction in Saskatoon, while:

- providing alignment with the City's energy performance goals;
- minimizing barriers to the building industry; and
- ensuring compatibility with future residential building energy retrofit opportunities.

2.0 Engagement Opportunities

The working group met on a monthly basis to share perspectives and identify possible solutions to achieve building energy efficiency performance gains for new dwelling construction. The working group participated in several engagement opportunities within the building construction and real estate industries and participated in learning opportunities related to energy rating systems.

Engagement opportunities were held for members from the Home Builders' Association, Saskatoon Region Association of Realtors, and Association of Saskatchewan REALTORS® that provided members with the opportunity to share perspectives on the residential construction and real estate market in relation to building energy performance, and to collaboratively identify possible solutions to achieve building energy efficiency performance gains in Saskatoon. Over 75 stakeholders participated in the membership discussions.

In addition, or as an alternative, to attending engagement meetings, stakeholders were provided with the option of meeting individually with the Administration to share their perspectives or submit comments in writing.

The working group engaged in discussions with Natural Resources Canada (NRCan) to gain a better understanding of the NRCan EnerGuide Rating System and ENERGY STAR® for new homes program.

- NRCan EnerGuide Rating System - developed to help homeowners, industry, and other stakeholders, become “energy literate” regarding homes and the decisions related to them. Through the home energy rating program, homeowners are provided with specific, readily-accessible energy performance information to support decision making in designing, constructing, purchasing, operating, or renovating a home. NRCan has established partnerships with industry stakeholders who utilize the EnerGuide Rating System as part of energy performance incentive programs, and shared information on how the EnerGuide Rating System is being use across Canada.
- ENERGY STAR program - contains more than 70 products. A “new home” product was developed by home builders for home builders and has existed in Saskatchewan since 2008. This “turnkey-approach” program is managed by a licensed delivery network and accommodates a prescriptive path (the choice of 80% of builders today) or a performance path to achieving energy performance that is 20% better than the National Building Code of Canada (NBC). By comparison, the R2000 program attempts to target 50% or better and Net Zero means there is a balance between energy use and production to achieve a net energy consumption of zero.
 - Prescriptive path – the builder chooses from a list of minimum requirements for fenestration (ratio and placement of window/door openings), air tightness, insulation, and heating/air-handling systems. The ENERGY STAR label is applied once construction is complete.
 - Performance path - the builder works with an energy advisor from the home-design phase onward and models the design with the goal of achieving a specific prescribed energy target. A blower-door test is used once construction is complete to confirm achievement of the target. The ENERGY STAR label is applied once the home passes the test.

This engagement summary is intended to summarize the key points of discussion through formal engagement opportunities and conversations with stakeholders.

Stakeholders included representatives from:

- land developers;
- residential builders;
- residential and commercial realtors;
- utility providers; and
- NRCan.

2.1 Engagement Summary

Members attending an engagement meeting were asked to share their perspective on opportunities to achieve energy performance gains for new home construction in Saskatoon related to minimum energy code requirements, energy performance literacy, builder capacity, and EnerGuide Rating System and labelling programs, including any barriers or challenges that may affect successful outcomes. Those in attendance were also asked to identify some of the key considerations in determining what a successful energy program may look like. The following is a summary of what we heard.

Energy Performance Literacy

- Across the entire spectrum of stakeholders, increased energy performance literacy is needed.
- Lenders, appraisers, the building and real estate industries, regulators, and energy providers need to work together to increase homeowner education and awareness in relation to energy performance, including energy consumption, building costs, and homeowner costs.
- Create energy/awareness in the marketing of homes as this is perceived to be the biggest barrier (e.g. consumers are not prioritizing energy performance in their buying decisions).
- Lenders and appraisers need to be involved in the discussion.
- Create opportunities to showcase the success of industry leaders.
- Consider opportunities to integrate the EnerGuide Rating System as an educational tool.

Minimum Energy Code Requirements and Builder Capacity

- Minimum energy code requirements for energy performance will assist in raising the minimum requirements for buildings.
- Adoption of Section 9.36 of the NBC throughout the province is the preferred minimum standard.
- Build-in time is needed for the industry to adapt and increase technical knowledge and expertise.
- The industry indicated it would like to work to develop several compliance options.
- EnerGuide Rating System should be explored as one potential compliance option.
- Industry leaders are motivated to keep pushing the envelope in design, provided the gap between regulated minimum standards and their design is not too big.
- Consider a balanced approach, utilizing regulated minimum standards, education, and voluntary incentivized energy performance programs.
- Should minimum energy code regulations in Saskatoon exceed provincial requirements, builder costs should be taken into consideration.

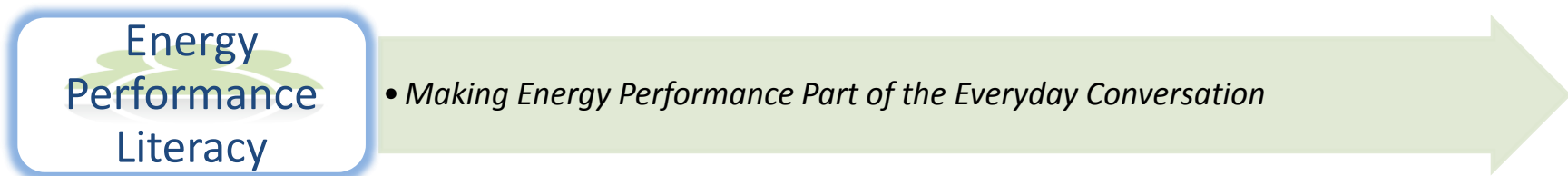
- Should new home construction be required to achieve a higher energy performance level in Saskatoon than the province, then retrofit requirements for existing dwellings need to be considered at the same time.
- Developing builder capacity is needed to support implementation of Section 9.36 of the NBC.
- Upon increasing their technical knowledge, several builders indicated that they were closer than they thought to achieving the minimum energy performance requirements of Section 9.36 of the NBC.
- Building capacity has the opportunity to reduce potential building costs and to create innovative building designs.
- Industry indicated interest in creating partnerships related to building builder capacity.

EnerGuide Rating System and Home Labelling Programs

- All stakeholders identified benefits associated with utilizing the EnerGuide Rating System and home labelling programs.
- The EnerGuide Rating System is readily available, developed, administered, supported, and marketed by NRCan.
- The EnerGuide Rating System is the industry standard used across Canada.
- The preference is that the EnerGuide Rating System be phased in to City programs through energy code compliance options, increased education to highlight benefits, and a component in voluntary incentivized energy performance programs for new and existing home construction.
- The ENERGY STAR program could be incentivized on a voluntary basis and should not be required immediately as a mandatory program. It is preferred that this program be used to encourage builders to exceed minimum energy code.

2.2 Identifying Possible Solutions

Stakeholders were asked to identify some of the barriers and challenges in achieving each of the project goals, and to propose options and solutions to overcome these barriers and challenges. The following is a summary of what was heard.



Summary: Many of the challenges associated with achieving energy performance gains in new residential construction relate to increased building costs, construction challenges, and, in particular, home-buyer market readiness. It was noted that there are industry

leaders who successfully build and market energy-efficient homes. The potential that increased costs associated with energy performance requirements may drive the home-buyer market toward the existing housing stock.

A collaborative approach to increasing energy performance literacy was a preferred option. It was suggested that partnerships between the City and key stakeholders be explored to harmonize education within the financial, appraiser, and real estate industries. It was recommended that the City could undertake opportunities to promote the use of the EnerGuide Rating System. It was noted that work toward all homes being provided with an EnerGuide Rating would increase energy performance literacy, with a preference that mandatory programs not be the first step.

Barrier/Challenge	Option/Solution
<ul style="list-style-type: none"> Increased building costs tough sell for builder 	<ul style="list-style-type: none"> Harmonize education with lenders, appraisers, and real estate to assist builders in marketing energy-efficient homes; and Homeowner and home-buyer education.
<ul style="list-style-type: none"> Competing with existing housing stock 	<ul style="list-style-type: none"> Find opportunities to level the market; consider implementing mandatory retrofit programs; and Require energy rating for all homes at time of resale.

Energy Code and Capacity

- Create supportive processes for implementation of Section 9.36 of the NBC
- Create technical learning opportunities for builders

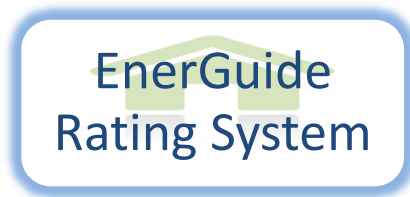
Summary: Many of the challenges associated with utilizing energy code regulation to achieve energy performance gains relate to potential increased construction costs and challenges. The development of industry-supported implementation practices and compliance options to support the energy code that are consistent throughout the province was also noted as a challenge.

Adopting energy code regulations at the municipal level to achieve energy performance gains that exceed the minimum requirements of Section 9.36 of the NBC was also discussed. In addition to the challenges noted above, some stakeholders also felt that a potential increased shift in the housing market to existing housing stock and to our regional partners may occur.

The industry is supportive of adopting and implementing Section 9.36 of the NBC within the recently proposed provincial adoption timelines of July 1, 2017, and coming into force on January 1, 2019. It was noted that builders want to be engaged in the process

changes to implement the new energy code requirements. It was suggested that the City lead technical energy code training sessions with the industry to build capacity and understanding related to minimum energy code requirements. It was also suggested that industry partnerships be explored to highlight innovative energy performance construction techniques and products to encourage industry to go beyond minimum code. It is preferred that incentivized options are explored to encourage energy performance gains beyond Section 9.36 of the NBC.

Barrier/Challenge	Option/Solution
<ul style="list-style-type: none"> • Technical energy performance knowledge • Need for innovative industry solutions 	<ul style="list-style-type: none"> • Partnering with the industry to develop opportunities to highlight innovative energy performance construction techniques and products, as well as showcase industry leaders. • City shall provide technical energy code training.
<ul style="list-style-type: none"> • Energy code adoption, implementation, and process changes related to building permit processes • Develop compliance options aligned with province 	<ul style="list-style-type: none"> • Work with builders to phase in the adoption of the energy code. • Create supportive building permit practices for the industry and engage industry in the development of process changes. • City shall provide technical energy code training. • Learn from our neighbouring provinces to build a successful framework. Work with the province to consider the EnerGuide Rating System as a potential compliance option.
<ul style="list-style-type: none"> • Increased building costs 	<ul style="list-style-type: none"> • Industry education as a whole is needed (some potential solutions identified above). • Help builders identify potential costs early so that they have time to prepare for a new energy code.
<ul style="list-style-type: none"> • Encouraging industry to build beyond the minimum energy code 	<ul style="list-style-type: none"> • The minimum energy code could be elevated to a higher minimum standards through a building bylaw. • Incentivize building through other mechanisms, incentives, grants, and rebates.



• *Integrate EnerGuide Rating system into incentivized energy performance programs*

Summary: The industry is supportive of the use of the EnerGuide Rating System. Cost and lack of education on the benefits of the system were identified as the two main barriers to wide-spread use of the system.

Proposed solutions focused on integrating the use of the EnerGuide Rating System into incentivized energy performance programs and developing opportunities to increase homeowner knowledge of the benefits of the system. Partnering with energy and power providers to create educational opportunities was suggested. Preference is that a phased approach to increasing the profile, benefits, and usage of the EnerGuide Rating System be undertaken using an incentive-based approach.

Barrier/Challenge	Option/Solution
<ul style="list-style-type: none"> • Benefits of system not widely known across the stakeholder spectrum • Cost 	<ul style="list-style-type: none"> • Partner with energy and power providers to create educational opportunities. • Integrate into the Home Builders' Association's parade of homes. • Spotlight EnerGuide-rated homes. • Integrate EnerGuide Rating Systems into incentivized energy performance programs for existing and new homes.

Proposed Solutions for Achieving Energy Efficiency Performance Gains

Proposed Solution	What does it address?	What can we do about it?	How will we address it?
<p>Provincial adoption of the National Energy Code of Canada for Buildings 2015 (NECB 2015) and National Building Code of Canada 2015 (NBC 2015), Subsection 9.36 Energy Efficiency, are proposed for July 1, 2017, with full implementation on January 1, 2019</p>	<p>The solution establishes a minimum level of energy compliance for new construction.</p> <p>The proposed adoption timeline addresses industry concerns related to builder and home-buyer market readiness.</p>	<p>The Building Standards Division is working with the construction industry to develop a supportive implementation plan that will include:</p> <ul style="list-style-type: none"> • providing a free plan review for prescriptive path energy requirements beginning the summer of 2017; • working with the province and energy performance service providers to identify performance compliance path requirements and potential opportunities to integrate the use of the EnerGuide Rating System; • providing technical training to the building industry; and • seeking opportunities to partner with the industry to increase builder capacity. 	<p>The Building Standards Division is currently working on this initiative.</p>
<p>Energy Performance Literacy</p>	<p>This solution addresses home-buyer market readiness and encourages competition among builders by showcasing industry leaders.</p>	<p>The goal of an energy literacy program will be to educate residents when buying a new home on how energy is used in their home, helping them make an informed purchasing decision. New programming must be both informative as well as influential. Information can be made available through a speaker series, tours of green buildings, demonstration sites, and campaigns using social and traditional advertising, videos, interactive online games and calculators, factsheets, infographics, tradeshow displays, blogs and articles, and more.</p>	<p>Separate report.</p>

Proposed Solution	What does it address?	What can we do about it?	How will we address it?
Incentivized energy performance programs related to new and existing homes	This solution encourages builders to build and renovate beyond the minimum energy code.	<p>The Environmental and Corporate Initiatives Division is researching the effectiveness of various environmental incentive programs. Incentive mechanisms may include:</p> <ul style="list-style-type: none"> • property tax abatements; • grants or rebates; • preferred-rate loans through third party lenders; • direct sale of land; and • Density or other development bonuses. 	Separate report.

Energy Performance Contracting Negotiations and Letter of Intent

Recommendation

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

1. That MCW Custom Energy Solutions Ltd. be accepted as the highest scoring proponent for the Energy Performance Contracting Request for Proposal (#17-0143);
2. That the Administration communicate to the Energy Services Company that loan periods greater than 15 years, and potentially as long as 30 years, may be acceptable to City Council;
3. That the City Solicitor be requested to assist in the negotiation of Letter of Intent agreements and that the City Manager be authorized to execute Letters of Intent under the Corporate Seal;
4. That the City Solicitor be requested to prepare the appropriate agreement for the lighting replacement at the Shaw Centre and that His Worship the Mayor and The City Clerk be authorized to execute the agreement under the Corporate Seal; and
5. That the City Solicitor be requested to assist in the negotiation of Energy Performance Contract agreement(s).

Topic and Purpose

The purpose of this report is to inform City Council that the Administration has selected the highest scoring proponent for the Request for Proposal (RFP) for Energy Performance Contracting (EPC) and to allow the City Manager to negotiate and sign Letters of Intent based on the process outlined in the RFP.

Report Highlights

1. EPC is a unique form of procurement. An Energy Services Company (ESCO) performs energy and water audits, retrofits civic buildings, and guarantees savings and maximum capital costs. The loan for the capital costs is repaid from avoided utility expenditures which are measured, verified and guaranteed.
2. The funding strategy is to utilize internal loans to be paid back within a stipulated period from the utility savings achieved.
3. Being selected as the highest ranked proponent does not result in the award of a known scope of work. Instead, a Letter of Intent is negotiated in order for the Proponent to proceed to the next stage of the project.
4. The EPC project can include replacement of aging infrastructure that will eventually require replacement through other civic funding sources, primarily the Civic Building Comprehensive Maintenance reserve (CBCM).

5. The Administration recommends exploring loan periods longer than 15 years with the ESCO to achieve an expanded set of benefits.

Strategic Goals

This report supports the Strategic Goal of Environmental Leadership and the four-year priority of implementing energy-efficient practices in City buildings, transportation and operations.

Background

On December 2, 2014, City Council approved using an EPC approach to delivering utility and greenhouse gas (GHG) savings through retrofits to civic facilities. The approach included the hiring of an Owner's Consultant with specialized knowledge and experience in EPC to assist with planning the project. On February 29, 2016, City Council approved award of the Owner's Consultant contract and on August 18, 2016, City Council approved an EPC Implementation Plan which included approval to issue an RFP for an ESCO.

Administration recommending procuring an ESCO to deliver facility retrofits that are repaid from measured and verified avoided utility expenditures. The ESCO will contractually guarantee their claimed savings, which significantly reduces risk to the City of Saskatoon (City). The EPC approach also provides advantages over an internal 'do it yourself' managed by the City that include:

- significantly accelerated timeline for achieving facility improvements and utility cost savings;
- lower project delivery costs associated with the buying power of the ESCO; and
- access to specialized expertise.

Report

EPC achieves energy and water efficiency in civic buildings by engaging the private sector. The ESCO delivers facility retrofits that are repaid from measured and verified avoided utility expenditures. The ESCO will contractually guarantee their claimed savings, which significantly reduces risk to the City of Saskatoon (City). Selecting an ESCO is a unique form of procurement. The scope of the project is not known until the ESCO is engaged, has completed their audits, and the owner has agreed to scope of work to be performed. A project generally proceeds in the following phases:

1. Selection of an ESCO (RFP process);
2. Negotiation and execution of a Letter of Intent (LOI) which authorizes the ESCO to proceed with a Feasibility Study (energy audits and additional plans);
3. Completion of Feasibility Study in consultation and collaboration with the owner;
4. Negotiation and execution of an EPC;
5. Construction; and
6. Measurement and verification of the savings.

As the City's EPC project proceeds, the Administration has recognized the opportunity to break down the delivery of the work such that one Letter of Intent (LOI) is signed for the Shaw Centre and an additional LOI is signed for a portfolio of buildings. There

would, therefore, be two EPCs executed in order to allow work in the Shaw Centre to be fast-tracked to align with a planned building shut-down in August of this year.

In general terms, the LOI outlines the constraints the City wishes to place on the Feasibility Study. Typical constraints include maximum acceptable loan periods and maximum loan size. The project goals may also be stated (e.g. desire to include renewable energy). The LOI also stipulates the consulting fees owed if the ESCO completes the Feasibility Study and then the City decides to cancel the project. The fees are described in the Financial Implications of this report.

RFP Scoring

The City of Saskatoon issued a Request for Qualifications (RFQ) for An Energy Performance Contract through SaskTenders.ca on September 20, 2016. A Project Evaluation Committee reviewed the applications and adjudicated them according to the criteria provided in the RFQ. Three applicants were shortlisted through this process. An RFP for Energy Performance Contracting was then issued to the three pre-qualified proponents on December 22, 2016. Three proponents submitted proposals:

- Honeywell;
- Johnson Controls; and
- MCW Custom Energy Solutions

A Project Evaluation Committee reviewed the proposals and adjudicated them according to the criteria provided in the RFP. The Project Evaluation Committee determined that the proposal submitted by MCW Custom Energy Solutions Ltd. best met the requirements of the RFP and achieved the highest score. As a result, it is recommended that the Administration attempt to negotiate LOIs with this company and that the City Manager be authorized to execute the LOIs. It is expected that the ESCO will supply their standard LOI and EPC documents and the Administration will review and negotiate specific terms. Because it is anticipated that the EPC will not be signed until fall 2017, the Administration also intends to negotiate a separate contract for the replacement of the lighting above the pool areas at the Shaw Centre so the work can be performed during the August 2017 facility shut down but still included in the Shaw EPC.

Project Goals and Loan Periods

The City has four primary goals for the EPC project:

1. Reduce operating costs, which may manifest as lower future budget increases
2. Reduce greenhouse gas emissions
3. Replace aging infrastructure and ensure civic facilities are efficiently and effectively performing their intended functions
4. Deliver capital renewal in the most efficient manner

The August 18, 2016, City Council report stated:

“Loan periods will continue to be assessed by the Administration for buildings where the 15-year period is not in the best interest of the City based on expected building life. When negotiating the Energy

Performance Contracting, the City will also always have the discretion to reject a specific retrofit that does not make sense to fund over a 15-year loan period.”

The current goals of the EPC project do not include achieving short term operational savings and maximizing return on investment. There is the opportunity to achieve greater GHG savings, install more renewable energy systems (e.g. solar photovoltaic panels), and modernize more aging infrastructure (thus further reducing the burden on the CBCM reserve) by increasing the allowable loan periods. To maximize the achievement of these goals the Administration recommends that the ESCO be permitted to explore retrofit options that result in loan periods longer than 15 years. The Administration has provided the rationale for longer loans in Attachment 1.

One of the reasons the Administration is recommending longer loan periods relates to the significant constraint posed by current pricing model for natural gas. SaskEnergy provides reduced rates for large consumption facilities and costs increase when gas consumption falls below 660,000 m³/year. If consumption is reduced through energy saving retrofits the unit cost of natural gas increases for these accounts. Attachment 1 provides additional information on rate class implications. Allowing a longer loan period to accommodate specific retrofits gives the Administration the flexibility to choose between capital or internal loan funding and provides more opportunity for the EPC tool to be used strategically to achieve the City’s goals. When the package of EPC retrofits is presented for approval, justifications for longer loan periods will be provided in each case.

Public and/or Stakeholder Involvement

The project is being managed by a multi-division team that includes Environmental and Corporate Initiatives, Facilities and Fleet Management, Solicitors, Business Administration, Finance and Purchasing Services.

Communication Plan

A preliminary communications plan has been developed as part of the Energy Management Program; communicating the project to civic staff and sharing approaches and successes with the business community and community-at-large. Once an ESCO is selected, the ESCO will be expected to contribute to the further development of the plan and assist in its execution.

Policy Implications

The policy, “Borrowing for Capital Projects (Council Policy C03-027)”, states that City Council be advised when a capital project requires a loan amortization period greater than 10 years.

Financial Implications

The cost for Feasibility Studies of the 20 target facilities in the proposal from MCW Custom Energy Solutions is \$172,000. Costs increase or decrease proportionally as facilities are added or removed to the list of 20 target facilities. Total costs for

consulting fees are expected to be under \$250,000 based on an analysis of additional facilities that may be warranted additions to the project scope. Capital Project #2568-03 was created for the purpose of initiating this project and has funding sufficient for these costs, if any, are incurred as a result of not proceeding with the project. The Administration also intends to negotiate a separate contract for the replacement of the lighting above the pool areas at the Shaw Centre and the estimated budget is \$450,000. The intent is that this work will be included in the EPC signed for Shaw but in the event this does not occur a lighting project would proceed as a Civic Building Comprehensive Maintenance Reserve capital project.

Environmental Implications

The implementation of the EPC project is expected to reduce utility use across 20 civic facilities by at least 20%. This would reduce greenhouse gas emissions by 4,600 tonnes per year and is equivalent to removing approximately 970 cars from our roadways each year. With the introduction of longer loan periods, larger savings in GHG emissions will be possible.

Safety/Crime Prevention through Environmental Design (CPTED)

CPTED and contractor safety requirements will be integrated into the EPC agreement.

Other Considerations/Implications

There are no privacy implications or considerations.

Due Date for Follow-up and/or Project Completion

The Administration will prepare a capital project for approval by City Council to begin building retrofits and replacement of equipment within a portfolio of buildings. This will likely occur in late 2017 or as part of the 2018 Business Plan and Budget.

In addition, the Administration will report to the Standing Policy Committee on Environment, Utilities and Corporate Services in August, recommending execution of an EPC agreement for the Shaw Centre and approval of the loan specific to that project.

Public Notice

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

Attachment

1. Loan Period Background

Report Approval

Written by: Chris Richards, Energy and Sustainability Engineering Manager
Reviewed by: Brenda Wallace, Director of Environmental and Corporate Initiatives
Troy LaFreniere, Director of Facilities and Fleet Management
Jason Turnbull, Director of Business Administration
Kerry Tarasoff, CFO/General Manager, Asset and Financial Management

EPC Negotiations and Letters of Intent

Approved by: Catherine Gryba, General Manager, Corporate Performance
Department

Energy Performance Contracting Negotiations and LOI Delegation.docx

Loan Period Background

One of the reasons the Administration is recommending longer loan periods relates to the significant constraint posed by current pricing model for natural gas. SaskEnergy provides reduced rates for large consumption facilities and costs increase when gas consumption falls below 660,000 m³/year. If consumption is reduced through energy saving retrofits the unit cost of natural gas increases for these accounts. The following table shows the resulting economics. Negative savings means that the cost for natural gas increased as a result of the change (i.e. savings are not achieved).

	Savings in Natural Gas Consumption		Corresponding Savings in Natural Gas Costs (Overall Bill)	
	[%]	[m3]	[%]	(\$)
Harry Bailey	10%	70,786	-20%	-\$21,374
	20%	141,572	-7%	-\$7,146
	30%	212,358	7%	\$7,082
	40%	283,144	20%	\$21,310
	50%	353,931	33%	\$35,538
Shaw Centre	10%	68,160	-19%	-\$20,275
	20%	136,320	-6%	-\$6,575
	30%	204,480	7%	\$7,125
	40%	272,640	20%	\$20,826
	50%	340,800	33%	\$34,526
TCU Place	10%	78,500	9%	\$10,916
	20%	157,001	-7%	-\$8,823
	30%	235,501	6%	\$6,956
	40%	314,001	19%	\$22,734
	50%	392,502	32%	\$38,513

The table shows that projects at these facilities must target at least 30% savings in natural gas consumption in order to achieve real financial savings. A specific example of a possible retrofit is the replacement of old, inefficient boilers:

- They can continue to operate for many more years, though operating expenditures will increase for maintenance.
- Because of the natural gas pricing structure, it is expected that replacement of certain boilers cannot be accommodated in a 15 year loan period without additional capital investment to “buy down” the loan or through achievement of significant savings from other measures.
- Not retrofitting the boilers within the EPC project results in fewer energy and GHG savings and loss of value from not achieving an integrated design.
- Eventually the replacements will require funding from capital reserves.

An additional example is the addition of insulation to the building envelope and other improvements or repairs to the building envelope.

Aquatic Invasive Species - Potential Local Impacts

Recommendation

That the report of the General Manager, Corporate Performance Department, dated May 8, 2017, be forwarded to City Council for information.

Topic and Purpose

This report is a response to a Standing Policy Committee on Environment, Utilities and Corporate Services inquiry for more detail about specific local impacts and resources required for management of aquatic invasive species.

Report Highlights

1. Invasive species have not yet been detected in Saskatchewan. Diefenbaker Lake and the South Saskatchewan River are high risk for infestation.
2. Public awareness and education is critical in preventing mussel infestation.
3. Formal impact assessments have not yet been carried out in Saskatchewan. Impacts can be predicted based on experiences in other jurisdictions.
4. Appropriate management measures and costs will vary depending on the extent of the infestation.

Strategic Goals

This report supports the Strategic Goal of Asset and Financial Sustainability by supporting programs that protect our drinking water source and our municipal water infrastructure. The report also supports the Strategic Goal of Quality of Life by protecting our primary service of providing affordable, high quality drinking water to our citizens.

Background

At its meeting of November 14, 2016, the Standing Policy Committee on Environment, Utilities, and Corporate Services resolved:

- “1. That the report of the General Manager, Corporate Performance Department, dated November 14, 2016, be forwarded to City Council for information;
2. That the Administration provide a report containing more detail in terms of specific local impacts and resources required; and
3. That the report of the General Manager, Corporate Performance Department, dated November 14, 2016, be referred to the Saskatoon Environmental Advisory Committee to review and report back to the Standing Policy Committee on Environment, Utilities, and Corporate Services with input.”

Report

Risk Assessment

Invasive mussel species were introduced into Canada's Great Lakes in the late 1980s. Today, invasive mussels have been detected in most of the jurisdictions bordering Saskatchewan including Manitoba, North Dakota, and Montana. They have not yet been found in Alberta or the Northwest Territories nor in Saskatchewan itself.

The province has identified that the lakes and rivers in our watershed are high risk for infestation by invasive mussels. Lake Diefenbaker, upstream of Saskatoon, is specifically at risk because of the many out-of-province boats that visit the lake for recreational purposes. If mussels do become established in Lake Diefenbaker, it is likely they would be carried downstream by the South Saskatchewan River, in addition to being transported by human activities. Attachment 1 contains additional information about aquatic invasive species in general, and mussels in particular.

Prevention/Awareness

Invasive mussels are often transported by attaching to recreational watercraft. Public awareness and education is, therefore, critical in preventing mussel infestations. The province has launched the "Clean, Drain, Dry" education campaign targeting recreational boaters and is actively monitoring for adult and larval mussels in high risk water bodies in the province. Attachment 2 contains more information about provincial initiatives related to invasive mussels.

Impact Assessment

Formal impact assessments have not yet been carried out by provincial government agencies nor by City Administration. Based on experience in other jurisdictions, the following municipal infrastructure and activities could be impacted:

- River water intake systems for the water treatment plant;
- Water treatment processes;
- River water intakes for irrigation of parks and golf courses;
- Weir infrastructure (future hydro-electric facility);
- Bridge footings and boat docks in water;
- Storm outfalls in water;
- Storm ponds and related piping infrastructure;
- Wastewater effluent discharge piping;
- Local beaches and sand bars used for recreation; and
- Recreational activities involving watercraft (e.g. Dragon Boat races).

Mitigation Planning

Appropriate management measures for invasive mussels will vary depending on the extent of the mussel infestation. In a worst case scenario, impacts will need to be managed by multiple operating groups, and costs could range from hundreds of thousands of dollars for annual operating budgets, to millions of dollars for capital infrastructure upgrades. Attachment 3 contains information about current municipal initiatives for managing invasive species for comparison purposes.

Aquatic Invasive Species – Potential Local Impacts

Currently, the most cost-effective investment is in public awareness campaigns to prevent or reduce infestations. The Administration has supported provincial education campaigns by installing additional highway signage within city limits and ensuring that potentially impacted operating groups receive training about mussels and how to monitor for their presence.

The City also continues to support public awareness and education about invasive mussels via membership in the South Saskatchewan River Watershed Stewards (SSRWSI), the Saskatchewan Invasive Species Council (SISC), and the Meewasin Valley Authority (MVA).

Public and/or Stakeholder Involvement

Stakeholders have been informed about the potential impacts of invasive mussels and are participating in education and monitoring initiatives.

The City is represented on the provincial invasive mussel task force via membership in non-governmental organizations including the SSRWSI, the SISC, and the MVA.

Other Considerations/Implications

There are no policy, financial, environmental, privacy, or CPTED implications or considerations and a communication plan is not required.

Due Date for Follow-up and/or Project Completion

Further information about aquatic invasive mussels will be provided in the Environmental Protection Annual Report.

Public Notice

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

Attachments

1. Aquatic Invasive Species (AIS)
2. Provincial AIS Initiatives
3. Municipal AIS Initiatives

Report Approval

Written by: Twyla Yobb, Watershed Protection Manager, Environmental & Corporate Initiatives

Reviewed by: Jeff Boone, Pest Management Supervisor, Parks
Tim Bushman, Water Treatment Plant Manager, Saskatoon Water
Amanda Conway, Wastewater Treatment Plant Manager, Saskatoon Water
Riwaj Adhikari, Operations Engineer, Construction & Design
Kevin Hudson, Metering & Sustainable Electricity Manager, Saskatoon Light & Power
Brenda Wallace, Director of Environmental & Corporate Initiatives

Aquatic Invasive Species – Potential Local Impacts

Approved by: Jeff Jorgenson, General Manager, Transportation and Utilities
Randy Grauer, General Manager, Community Services
Catherine Gryba, General Manager, Corporate Performance

Aquatic Invasive Mussels – Potential Local Impacts.docx

Aquatic Invasive Species (AIS)

Aquatic Invasive Species

Aquatic invasive species (AIS) are organisms that move into ecosystems beyond their natural or historic range. Their presence may harm native ecosystems, thereby impacting human commercial, agricultural, or recreational activities. Invasive species can include plants, animals, insects, invertebrates, fungi, bacteria, and diseases.

Regulation of Aquatic Invasive Species

Aquatic invasive species are currently regulated both federally and provincially. Federally, the *Aquatic Invasive Species Regulations* of the *Fisheries Act* prevents the introduction of AIS into Canadian waters and, if introduced, controls and manages their spread. In Saskatchewan, the Ministry of Agriculture's *Weed Control Act* and the Ministry of Environment's *Fisheries Act*, along with their associated regulations, list aquatic invasive species that are prohibited from entering the province and those that are identified for eradication and control.

Municipalities must comply with both federal and provincial legislation for AIS. There are currently several initiatives in Saskatoon that deal with these species. For more information refer to Attachment 3.

Invasive Mussels

Zebra and Quagga mussels originated in Eastern Europe and were transported to Canada via international ships that entered the Great Lakes region. Both of these mussels are freshwater filter feeders that attach to hard surfaces with special tough threads. Each female adult mussel can produce up to a million offspring (larvae), which are carried along by water currents until a suitable surface for attachment is encountered.

Larvae will attach to a wide variety of surfaces, including boat hulls, floats for planes, and recreational equipment including canoes/kayaks, paddleboards, jet skis, paddles, hip waders, hiking boots, etc. They can live up to 30 days out of water. Transportation by humans is the main mode of infestation for aquatic invasive mussels.

Impacts of Invasive Mussels

Once mussels are established within a water body, they are almost impossible to eliminate. Large colonies of mussels will form in favorable conditions and tend to change local ecosystems via their feeding and excretion habits. Impacts are environmental, social, and economic for native species and any human activities that are dependent on them. Examples are provided in the following table:

Environmental	Social	Economic
Displacement of native species, reduced diversity	Reduced productivity in fishing, forestry, agriculture resulting in job loss	Unemployment
Alteration/destruction of fish habitat	Sport fishing unavailable	Reduced tourism
Changes to water quality	Potable water fouling	Increased cost of water treatment
Formation of adult colonies on hard surfaces	Reduced supplies to water users or higher costs for potable water	Obstruction of water intake and hydro-electric infrastructure Increased prevention and maintenance costs
Accumulation of hard, sharp shells of dead mussels ("sharp shores")	Reduced access to public and private beaches	Reduced property values, decreased attraction for tourism Increased maintenance costs
All of the above	Protectionism, barred access to waterways	Reduced tourism and recreational opportunities

Risk Assessment

Invasive mussels require certain environmental conditions for survival of larvae and establishment of adult mussel colonies. The province has assessed conditions in lakes and rivers throughout Saskatchewan; the surface waters in our watershed are considered to be favorable mussel habitat.

Mussels have been detected in Manitoba, North Dakota, and Montana. In Manitoba, the mussels have been found in the Red River, as well as in Lake Winnipeg.

The main mode of transport for mussels is attachment to watercraft. Lake Diefenbaker, upstream of Saskatoon, is specifically at risk for infestation because of the many out-of-province boats that visit the lake for recreational purposes.

Based on environmental conditions, proximity to jurisdictions where mussels have already been detected, and the occurrence of human activities that lend themselves to transportation of mussels, the province considers the South Saskatchewan River watershed to be at high risk of infestation.

The Meewasin Valley Authority has identified invasive mussels as a significant future threat to the hydro-riparian resources of our River Valley.¹

¹ Meewasin Valley Authority. Valley-Wide Resource Management Plan. 2017.

Provincial AIS Initiatives

Aquatic Invasive Species (AIS) Programming

Saskatchewan has been involved with federal and provincial invasive species organizations since the late 2000s. Aquatic invasive species, including mussels, became a focal point in 2014 with the appointment of a special coordinator. In 2015, legislation was enacted that gave the province the right to inspect, quarantine, and decontaminate watercraft known or suspected to contain aquatic invasive species.

Clean, Drain, and Dry Campaign

This program targets boat owners transporting recreational craft into and within the province. Components of the campaign include:

- Educational materials to promote awareness of invasive mussels, including highway and boat launch signage.
- Two mobile decontamination units that can be used at border crossings.
- Hotline for the public to report suspicious watercraft.

Adult Invasive Mussel Monitoring (AIMM)

This program utilizes volunteers to visually monitor approximately 140 stations on 50 water bodies.

Veliger (larvae) Monitoring

Where the risk of infestation is high, the province obtains water samples to test for the presence of mussel larvae. The University of Saskatchewan is developing methods to detect larvae earlier and more accurately using environmental DNA (eDNA) technology.

Western Agreement on Aquatic Invasive Species

In June 2016, the government of Saskatchewan signed an agreement with Alberta, British Columbia, Manitoba, and the Yukon Territory to form a coordinated regional approach to aquatic invasive species. The agreement is intended to promote resource sharing and collaborative planning for prevention and response to AIS.

Aquatic Invasive Species Strategy

The strategy outlines a framework for prevention, response, and management of aquatic invasive species. The document is in final draft and is anticipated to be completed in spring 2017.

Task Force

In early 2017, the province spearheaded the formation of a task force, consisting of provincial agencies and non-governmental organizations, to coordinate education/awareness, prevention, and planning.

The City is represented on this task force via membership in several non-governmental organizations including the South Saskatchewan River Watershed Stewards, the Meewasin Valley Authority, and the Saskatchewan Invasive Species Council.

Municipal Aquatic Invasive Species (AIS) Initiatives

Administration of the *Weed Control Act*

The Parks Division manages invasive species listed in the provincial *Weed Control Act*. Administration employs two Weed Inspectors who are trained to recognize and deal with invasive species within the city, and supports corporate membership with the Saskatchewan Invasive Species Council.

Currently, only two aquatic invasive plant species have been found in Saskatoon.

- Purple loosestrife is a non-native plant that is considered to be a noxious weed. There are several isolated infestation of purple loosestrife in Saskatoon. Control efforts have involved hand removal of plants and/or seed heads, herbicide application (with a special provincial permit), and release of herbivorous beetles.
- Yellow floating heart is a prohibited weed that has twice been discovered for sale at local garden centers. Unsold plants were bagged and buried at the landfill, and any plants that had been sold were destroyed.

Costs of administration of the *Weed Control Act* vary depending on the need identified each year. The total annual operating budget for work related to both terrestrial and aquatic plants and animals is estimated at \$50,000. Of this amount, only about 10%, or \$5000, is spent on control of aquatic species in any given year.

There is currently a gap in funding for action on terrestrial invasive species, specifically with respect to invasive insects and diseases that impact the urban forest (e.g. Dutch Elm Disease, cottony ash psyllids), and with respect to terrestrial weed control. Information about current programs linked to these invasive species can be found in reports presented to the Standing Policy Committee on Planning, Development, and Community Services.

- Dutch Elm Disease Response Plan Update (PK 4110-1) July 18, 2016
- Annual Weed Inspection Report (PK4190-1) Mar. 6, 2017

Administration of the *Fisheries Act*

There is no centralized responsibility for management of other aquatic invasive species under the federal and provincial *Fisheries Act*. Individual operating groups are responsible to manage invasive species as they are encountered.

Koi and Goldfish

Water & Waste Stream manages man-made storm ponds. These ponds are designed to hold storm water during a significant rain event and slowly drain to the river over time. Residents sometimes release non-native pet fish into the ponds, where they can survive and make their way to the river. During the summer of 2016, Water & Waste Stream assessed two storm ponds and discovered various sizes of koi and goldfish, both of which are considered to be invasive.

In 2017, Water & Waste Stream plans to undertake control measures for invasive koi and goldfish in the two ponds. They are also developing educational materials for

residents to discourage the release of aquatic pets into the storm system. The annual operating budget for control of koi and goldfish is approximately \$35,000.

Green Infrastructure Strategy

Recommendation

That the report of the General Manager, Corporate Performance Department, dated May 8, 2017, be forwarded to City Council for information.

Topic and Purpose

The purpose of this report is to describe the expected outcomes of the Green Infrastructure Strategy and how it aligns with the priorities of the City of Saskatoon (City).

Report Highlights

1. Natural areas are increasingly becoming integrated into the urban environment in Saskatoon. Appropriate policy is required to address natural systems and guide interactions with built urban systems.
2. Emerging practice in urban storm water planning includes incorporating natural systems and creating new designs to mimic natural features and processes.
3. Outcomes of the first phase of the Green Infrastructure Strategy include the development of a high level policy statement, an inventory map of Saskatoon's Natural Areas, and a framework for further policy and guidelines for urban land use and natural areas.
4. The Green Infrastructure Strategy will incorporate the knowledge and actions identified in the Meewasin Valley-Wide Resource Management Plan.

Strategic Goals

This report supports the Strategic Goal of Sustainable Growth by developing a new approach to land use that considers natural areas, surface water management, and other urban activities in an integrated fashion. It also supports the goal of Environmental Leadership by ensuring that climate change adaptation and mitigation is considered during land use planning, by promoting biodiversity, by improving access to ecological systems and spaces, and by improving the quality and reducing the quantity of storm water run-off that is going to the river. Also, the goal of Asset and Financial Sustainability is supported by exploring options to reduce gaps in funding required to rehabilitate and maintain our infrastructure.

Background

On November 30, 2016, City Council approved an amended scope of work for Capital Project #2390 – Green Infrastructure Strategy. The purpose of the Strategy is to develop an integrated approach to planning for and maintaining a sustainable, biodiverse city by considering natural and supporting areas as important infrastructure in our urban environment. Human use of natural and supporting areas for storm water management and recreation will be considered in this approach to land use through the lens of climate change adaptation and mitigation.

On March 27, 2017, City Council received the Meewasin Valley-Wide Resource Management Plan for information.

Report

Urban Natural Areas

Natural areas are increasingly becoming integrated into the urban environment in Saskatoon. This is prompting concerns related to linkages between natural areas, interface between natural and built up (or developing) areas, management, public perception, and shared use with other facilities and infrastructure (e.g. parks, storm water, trails, etc.). Appropriate policy is required to address natural areas as an important system and guide interactions with all other systems that make up the city.

Natural area strategies/plans are a best practice in urban planning. They are common in medium and larger cities and are becoming increasingly prevalent in smaller cities. Ultimately, natural area strategies increase quality of life for citizens and create value by developing policy to connect the urban environment more closely with nature.

Storm Water Management

Natural areas, in addition to being valuable areas of habitat and recreation, are also natural storm water management features. Emerging practice in urban storm water planning includes incorporating existing natural systems rather than replacing them and creating new designs to mimic natural features and processes. Development of this integrated management approach for storm water using green infrastructure is becoming standard practice for climate adaptation in large and medium-sized Canadian municipalities.

Outcomes

The project is divided into two phases. The first phase assesses Saskatoon's current state, including the state of existing Green Infrastructure and the state of existing policy. The primary deliverables of the first phase include high level policy direction proposed for incorporation into Saskatoon's Official Community Plan and a framework for classifying green infrastructure and quantifying natural asset value. These items will be used to guide the development of a Green Infrastructure Plan that aligns with the Meewasin Valley-Wide Resource Management Plan and is expected to include:

- A network map that outlines the desired state of Saskatoon's Green Infrastructure
- Natural Areas Development Standards and Management Guidelines
- An initiative inventory outlining current and future initiatives that will contribute to achieving Green Infrastructure goals
- An implementation plan and funding strategy

Initiatives that may be influenced by the Green Infrastructure Plan include:

- Official Community Plan update
- Natural Capital Asset Valuation
- Growth Plan Implementation Strategy
- Various Asset Management Plans

- Neighbourhood Design Standards
- Stormwater Design Standards
- Landscape Design Standards
- Climate Change Mitigation Business Plan
- Climate Change Adaptation Strategy
- Recreation and Parks Master Plan
- Active Transportation Plan
- Development Review Process
- Wetlands Policy Implementation

Public and/or Stakeholder Involvement

The Meewasin Valley Authority (Meewasin) is a key member of the project team that is working on the Green Infrastructure Strategy. Involvement of Meewasin is intended to ensure a consistent approach to development and management of natural areas throughout the city and in areas under Meewasin jurisdiction.

A list of key stakeholders that will be consulted during the first phase of the Green Infrastructure Strategy can be found in Attachment 1.

Communication Plan

Communications about the Strategy development phase will be included in other parks, growth, and environment-related initiatives throughout 2017 and will be reported on separately. Frequently Asked Questions are included in Attachment 2.

Financial Implications

Capital Project #2390 contains funding that the Administration hopes to leverage by applying to the Federation of Canadian Municipalities' (FCM) Municipalities for Climate Change Innovation Program. The Administration will apply for this funding this spring.

Other Considerations/Implications

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

Due Date for Follow-up and/or Project Completion

The first phase of the Green Infrastructure Strategy is anticipated to be complete by the third quarter of 2017. A full report on outcomes of the project will be submitted to the Standing Policy Committee on Environment, Utilities and Corporate Services by the end of the year.

Public Notice

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

Attachments

1. Key Stakeholders
2. Frequently Asked Questions

Report Approval

Written by: Twyla Yobb, Watershed Protection Manager, Environmental & Corporate Initiatives

Reviewed by: Tyson McShane, Senior Planner, Long Range Planning
Brenda Wallace, Director of Environmental & Corporate Initiatives
Randy Grauer, General Manager, Community Services Department

Approved by: Catherine Gryba, General Manager, Corporate Performance Department

Green Infrastructure Strategy.docx

Key Stakeholders

Stakeholder engagement for the first phase of the Green Infrastructure Strategy will include site visits and workshops with key stakeholders that can contribute technical expertise and experience to the development of the strategy.

Key collaborative stakeholders include:

- Developer's Liaison Committee
- Ducks Unlimited
- Environment Canada
- First Nations
- Meewasin Valley Authority
- Ministry of Environment
- Nature Conservancy of Canada
- Northeast Swale Watchers
- Saskatoon Environmental Advisory Committee
- Saskatoon Environmental Society
- Saskatoon Nature Society
- Saskatoon Wildlife Federation
- Stewards of the Richard St. Barbe Baker Afforestation Area
- South Saskatchewan River Watershed Stewards
- University of Saskatchewan
- Water Security Agency

Frequently Asked Questions

What is green infrastructure?

Green infrastructure is a strategically planned network of natural areas and green spaces that is managed to deliver a wide range of services to urban communities.

What is the City doing?

Administration is taking a new approach to integrating natural areas into our urban environment through the development of a Green Infrastructure Strategy. As part of this process, we are investigating opportunities to maintain a healthy and biodiverse system of natural areas within Saskatoon and surrounding areas. We are also looking at ways to use our green spaces for urban uses like stormwater management and recreation, while maintaining healthy urban ecosystems.

Why are we doing this?

Maintaining a healthy and sustainable city requires that we consider the ways in which we interact with our natural environment, and that we manage our impacts appropriately. This is especially important as the city grows and as we replace old infrastructure and increase density in established areas of the city.

Natural ecosystems provide cities with many benefits, including improved resilience to the impacts of climate change. For example, green plants take up carbon dioxide and reduce greenhouse gases. Re-establishing or mimicking natural drainage patterns helps to decrease urban stormwater pollution and manage runoff from small storms. Maintaining native species in our green spaces improves disease resistance and biodiversity.

Connecting residents to nature with a well-managed, integrated approach will provide a higher quality of life for our citizens over the long term.

What has been completed so far?

Preliminary work has begun on the Green Infrastructure Strategy, which will result in a high level policy statement, an inventory map of Saskatoon's natural areas, and a framework for further policy and guidelines for natural areas. We are currently working with specific community stakeholders to contribute technical expertise and experience towards the development of the strategy.

What can you expect?

The outcomes of the Green Infrastructure Strategy will be used to guide the development of a detailed 25-year plan. We will be engaging our community as we move toward the planning phase.

What can you do?

Stay tuned to hear about future engagement opportunities related to green infrastructure.

Natural Capital Asset Valuation

Recommendation

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

1. The information pertaining to Natural Capital Asset valuation for natural (“green”) infrastructure contained within City of Saskatoon limits be received; and
2. That a capital project for the Natural Capital Asset valuation be created to enable an application to the Federation of Canadian Municipalities (FCM) Municipalities for Climate Change Innovation Program.

Topic and Purpose

The purpose of this report to define Natural Capital Asset (NCA) valuation and how it aligns with the priorities of the City of Saskatoon (City). The report will illustrate the expected deliverables of the valuation and expected financial requirements.

Report Highlights

1. The Natural Capital Asset (NCA) valuation will support environmental planning and various asset management strategies.
2. The valuation will inform the Administration of the financial value of our natural assets as a climate change mitigation and adaptation tool, community lifestyle, and alternative to built infrastructure.
3. The financial valuation will mediate corporate risk by identifying the value of the City of Saskatoon green infrastructure.
4. The Federation of Canadian Municipalities (FCM) has released new grant funding in support of municipal responses to climate change. NCA valuation may qualify for such funding.

Strategic Goals

This report supports the Strategic Goal of Continuous Improvement by encouraging innovative thinking as it relates to natural areas and “green” options as alternatives to built infrastructure. Leveraging current trends enables the City to serve the citizenry by providing an environmentally sustainable approach option to services and development, and applies a modern approach to Civic operations.

Asset and Financial Sustainability is supported through financial valuation of substantial infrastructure. The valuation process can identify risks to capital, provide the foundation for identifying green infrastructure options that are more financially viable than built infrastructure, and identify asset maintenance strategies.

Quality of Life is supported by ensuring that natural areas are accessible to the community and meets residents' needs, including an avenue to engage more closely with aboriginal communities in natural area planning and statements of value. Environmental Leadership is supported by financially valuing natural areas that protect water quality, mitigate greenhouse gas emissions, and provide a wide variety of ecological services to the municipality.

Background

The City has committed to the Covenant of Mayors for Climate and Energy to respond to climate change through mitigation activities and adaptation planning. The Natural Capital Asset (NCA) valuation process identifies the value (in financial terms) of carbon sequestration and climate change adaptation processes.

Environmental planning has become a standard that most municipalities engage. The Asset Management Plan, the Risk Management Plan, Mitigation Business Plan, and the Green Infrastructure Strategy have identified the need to financially value natural infrastructure in the community to advise the City's ongoing development and operations.

Report

NCA valuation is a process of creating an inventory of the natural capital residing within the City and systematically applying a financial value to it similar to the process currently applied to built infrastructure.

The NCA inventory will inform decision makers of the value (in financial terms) that parks, paths, and green infrastructure can add to the community. It will also identify and respond to challenges related to growth and increased population. Economically, the valuation recognizes that green infrastructure may be a more viable infrastructure option than built infrastructure in the long and short term, and it recognizes a triple bottom line approach to municipal planning and operations.

Recognizing and planning for/with natural assets is a typical component of environmental planning at the municipal level and increasingly part of Asset Management oversight. Environmental planning includes risk assessment, recognizing and valuing the assets affected, and management decision-making based on informed financial position.

NCA management identifies value, risk and maintenance implications of the natural assets within the control or jurisdiction of the municipality. These assets are considerable. Some Canadian municipalities now report the natural capital value and management tool on their corporate financial statements.

The valuation process may contribute to and affect plans such as:

- Official Community Plan
- Risk Management Plan
- Asset Management Plan

- Enterprise Resource Planning (ERP)
- Sector and Neighborhood Concept Plans
- Local Area Plans
- Infill Development Strategy
- Vacant Lot and Adaptive Reuse Strategy
- Energy and Greenhouse Gas Plan (and future Climate Change Mitigation Business Plan)
- Climate Change Adaptation Strategy
- Recreation and Parks Master Plan
- Green Infrastructure Strategy

The NCA valuation will enable City departments to identify the effect of operations and capital projects on natural assets, how to mediate risk to these assets, and how to incorporate natural assets as an alternative to built infrastructure.

Public and/or Stakeholder Involvement

Consultation with the Meewasin Valley Authority (Meewasin) is intended to ensure a coordinated approach to valuing natural areas and green infrastructure, particularly as it relates to areas that fall within Meewasin jurisdiction.

Two national Canadian bodies, the Chartered Professional Accountants Canada (CPA) and the Natural Capital Lab, have engaged in a partnership to identify standards for reporting on natural capital. Through this initiative, the City is involved in the process of identifying reporting standards for the municipal sector.

Communication Plan

A communications strategy for NCA valuation will be woven into plans for communicating about the Green Infrastructure Strategy and can be adopted to inform the public of the financial value that the City maintains in green infrastructure.

Financial Implications

This initiative to design a framework for green infrastructure is supported in-house including oversight by a designated Accountant.

Application of the financial valuation itself (once the framework has been designed) will be considered a capital endeavor, requiring two additional accountants over a 12-month period, plus an investment in training and development. The projected capital commitment is estimated at \$160,000. The Administration recommends creating a new capital project for NCA valuation to enable an application to the FCM Municipalities for Climate Change Innovation Program. There is no current source of funding to support this application. However, the Administration intends to also apply for FCM funding in support of the Climate Mitigation Business Plan (the strategy for reducing greenhouse gas emissions to achieve targets and meet the City's commitment to the Covenant of Mayors). The funding available in Capital Project 2183 to support the Business Plan would be sufficient to cover the City's 20% share for the NCA valuation, as well as the Climate Mitigation Business Plan, if either of these projects are approved.

There is currently \$100,000 remaining in Capital Project 2183, which would be sufficient to also cover the City's 20% share of the costs to complete a Climate Adaptation Strategy (the other major requirement under the City's commitment to the Covenant of Mayors). The Administration does not plan to apply for the Adaptation Strategy project until Fall and will bring forward a report after learning whether the Natural Capital Asset Valuation and Climate Mitigation Business Plan projects are approved.

The completion of the NCA valuation is expected to create further opportunities for federal funding to engage in natural asset planning under the Federal Government's Phase 2 Green Infrastructure funding stream.

NCA valuation is anticipated to contribute value to the City's Asset Management Program. Should the City wish to bring NCA into this Program, ongoing operations include the periodic testing required to ensure that the asset remains in the correct asset class. The operating cost is estimated at \$75,000. Additional funds may also be required following further analysis to determine the adequacy of current civic software for reporting the NCA results. The Administration will bring a report to future (2019) Budget deliberations should the valuation exercise prove this to be a valuable ongoing strategy.

Environmental Implications

NCA valuation will have significant implications for environmental initiatives by enabling the reporting of financial value for projects in a manner similar to built infrastructure projects. Environmental mediation and post-development investment required for climate change adaptation and mitigation may be alleviated through NCA valuation at the planning phase of projects.

Other Considerations/Implications

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

Due Date for Follow-up and/or Project Completion

The NCA valuation framework will be completed by the end of 2017. An information report summarizing the framework will be provided to the Standing Policy Committee on Finance and the Standing Policy Committee on Environment, Utilities and Corporate Services. If the City is successful in its application to FCM, the valuation of major natural capital assets will also be completed by the end of 2017 with an information report to the Standing Policy Committee on Finance.

Ongoing valuation of NCA will result in information reports submitted on an annual basis, ideally corresponding with reporting on Tangible Capital Assets.

Public Notice

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

Report Approval

Written by: Nasha Spence, Environmental Accounting Manager
Reviewed by: Brenda Wallace, Director of Environment and Corporate Initiatives
Twyla Yobb, Watershed Protection Manager
Jason Turnbull, Director of Business Administration
Kerry Tarasoff, CFO/General Manager, Asset and Financial
Management Department
Approved by: Catherine Gryba, General Manager, Corporate Performance
Department

Natural Capital Asset Valuation.docx

Waste Diversion Opportunities

Recommendation

That the report of General Manager, Corporate Performance Department, dated May 8, 2017, be forwarded to City Council and SEAC for information.

Topic and Purpose

This report provides a summary of waste diversion opportunities.

Report Highlights

1. It is estimated that 66% of waste generated in the City of Saskatoon (City) is derived by the Industrial, Commercial, Institutional (ICI) generators and 34% is residential.
2. A short list of community waste diversion opportunities was identified by Dillon Consulting Ltd as part of the process of developing a draft Waste Diversion Plan. These included:
 - a. A mandatory city-wide organics program was identified as the program option with the greatest diversion potential for single-family households.
 - b. A strategy for diverting ICI waste will play a critical component of increasing Saskatoon's waste diversion rate.
3. Next steps in creating the Waste Diversion Plan include further evaluation and community engagement.
4. In response to the opportunities identified, the Administration has prepared a report on A Waste Utility for Saskatoon recommending further investigation.
5. The Administration will also prepare two discussion papers on Organics and ICI Waste for consideration in August. All of these reports will help inform the review of civic waste management services and will provide information important to the community engagement process.

Strategic Goal

This report supports the Strategic Goal of Environmental Leadership through the four-year priorities of promoting and facilitating city-wide composting and recycling to reduce the rate and volume of waste sent to the landfill and implement energy-efficient practices in City buildings, transportation, and operations. It also supports the long-term strategy to reduce greenhouse (GHG) gas emissions tied to City operations.

Background

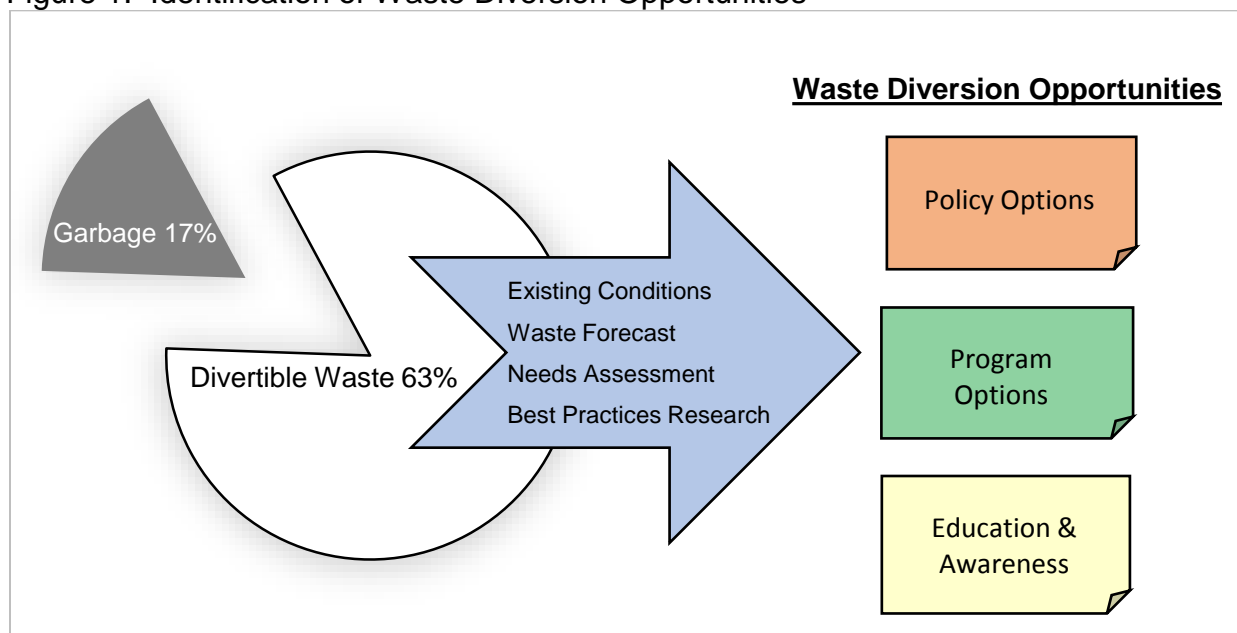
In October 2015, the Administration issued a Request for Proposals (RFP) for the characterization of municipal solid waste generated in Saskatoon and development of a draft Waste Diversion Plan based on the characterization. In February 2017, a report on the preliminary summary of the 2016 comprehensive, community-wide Waste Characterization was brought forward.

Report

Waste Diversion Opportunities

To achieve the Performance Target of 70% waste diversion and to begin to align Saskatoon with the objectives of the National Zero Waste Council, work has begun on a Waste Diversion Plan. The initial step in this process involved working with a consultant, Dillon Consulting Ltd, to identify the most impactful and suitable waste diversion opportunities for Saskatoon. Using the results of the 2016 Waste Characterization and the methodology described in Figure 1, a list of opportunities for improved waste diversion were identified under three categories – policy changes, new programs, and opportunities for improved education and awareness.

Figure 1: Identification of Waste Diversion Opportunities



Note: Garbage (Other Material) - includes diapers and sanitary products, pet waste, textiles, rubber items, bulky wastes, and other waste that is difficult to classify. Divertible Waste - could be diverted from the landfill if new programs are made available.

The first phase of this work involved looking at the results of the 2016 Waste Characterization and identifying the waste categories that represented the largest portion of the waste generated in Saskatoon.

An estimate of the total solid waste in Saskatoon (including private waste disposal and recycling) indicated that 66% was being generated by businesses and organizations in the ICI sector and 34% is residential. Table 1 identifies the amount of waste (in tonnes) generated within each municipal solid waste stream.

Waste Diversion Opportunities

Table 1: Estimated Waste Disposed per Waste Generator per Year

Generator	Tonne/Year
Single-family	51,900
Multi-family	14,200
Self-Haul	17,100
ICI	147,800*
C&D	16,100*
Total	247,100

* Refers to amounts that were inferred from Statistics Canada

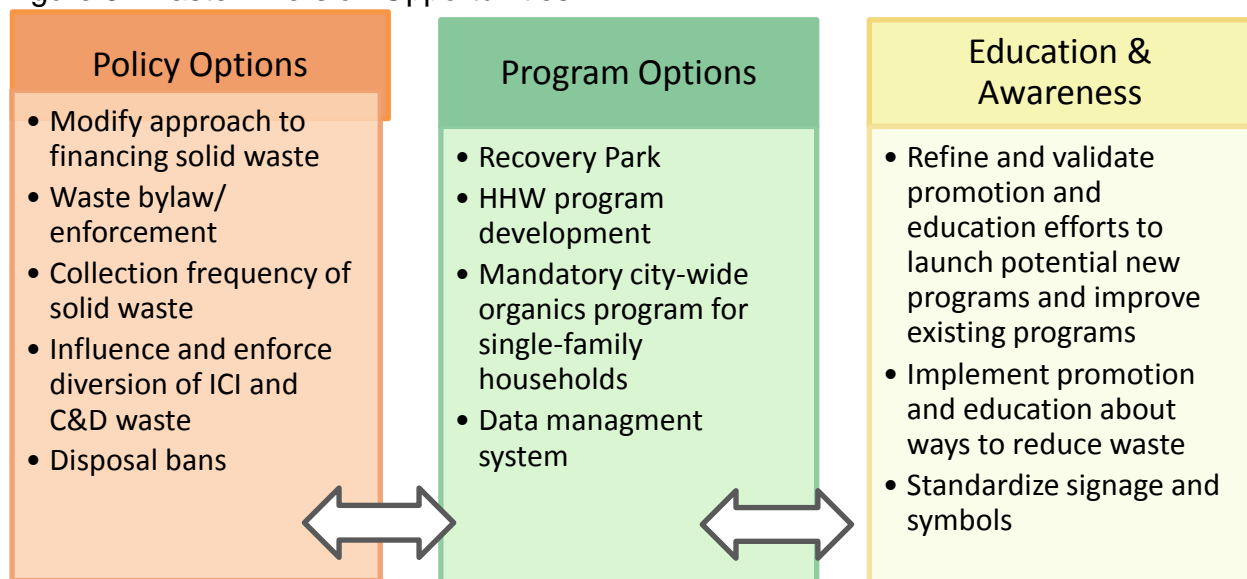
Attachment 1 provides further information about the total estimated waste composition for all generators.

The study also considered:

- existing conditions that impact how waste is currently processed in the Saskatoon Region,
- a future forecast of waste over the next ten years,
- a consolidation of existing system information and target areas that could be changed or improved; and
- best practices from other Cities that may reasonably apply to Saskatoon

Using these combined study methods, the most significant waste diversion opportunities identified by the consultant among a long list of considered options are shown in Figure 3. It is important to note that some of the identified actions are dependent on each other (i.e. a new program may require policy changes to be made). Education and awareness are critical in the success of both policy and programs.

Figure 3: Waste Diversion Opportunities



Policy Options

Initial findings support the development of a new financing framework for solid waste (i.e. transition toward waste as a utility). A program of data management (i.e. the system and process changes necessary to enable a new financing framework for waste) must be in place as it is a critical component of any options involving a utility. The Administration will now further investigate solid waste financing options as the Waste Diversion Plan continues to develop and as part of the civic waste management review currently underway. A discussion paper on key considerations associated with a solid waste utility will be prepared by summer.

The City does not currently offer waste solutions to the ICI sector, yet this sector generates the most significant volume of waste in the community. Policy approaches identified by the consultant include disposal bans and mandatory recycling for businesses as these have the greatest diversion potential for Saskatoon. Recovery Park also provides an opportunity to improve waste diversion options available to the ICI sector. Other initiatives such as development of an organics facility (either by the private sector or the City itself), will also be important for this sector.

The Administration is currently identifying potential roles for the City in ICI waste management and will prepare a discussion paper on key considerations associated with these initiatives.

Program Options

A mandatory city-wide organics program was identified as the program option with the greatest diversion potential for single-family households. 58% of the waste sampled in residential black carts was organic waste. 27% of this was food waste and 31% was yard waste. The Administration has previously studied this program and is updating the information for a discussion paper on key considerations associated with a city-wide organics program.

As Recovery Park is already being developed, consultant recommendations involved additional considerations related to design, managing risk, and the future evolution of Household Hazardous Waste (HHW) program options. An update on Recovery Park is forthcoming in May.

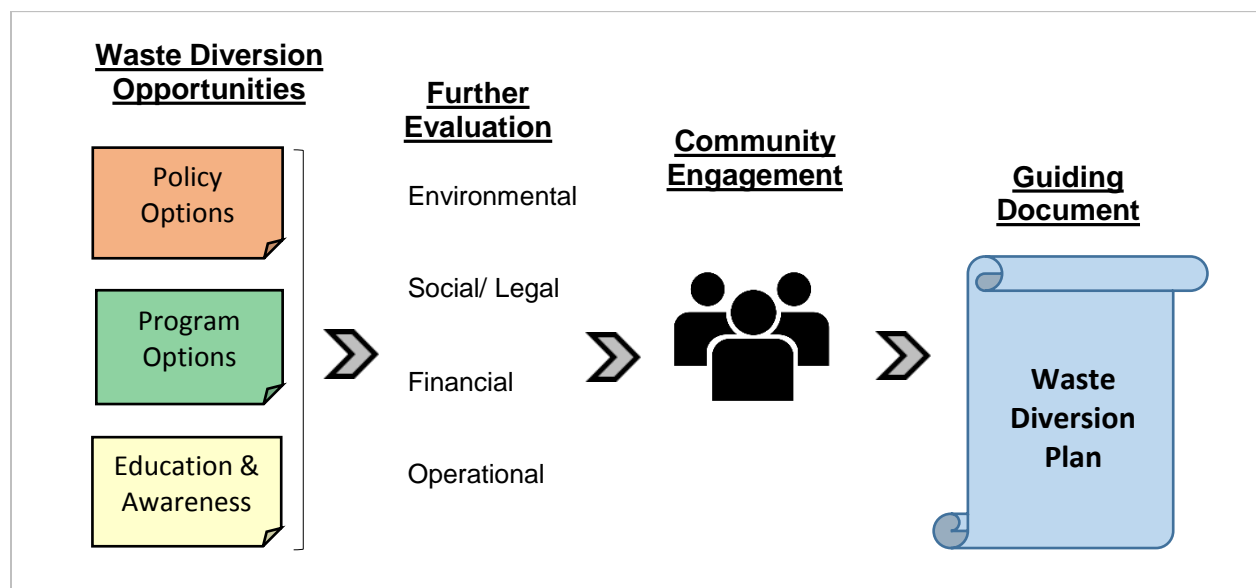
Education and Awareness

Promotion and education efforts are important to increasing waste diversion. The City already has a number of strong waste education and awareness initiatives underway. Opportunities for improvement include expanding the use of standardized signage and symbols throughout the community, better signage at disposal and collection points, and different communication options for reaching a broader range of demographics. It was noted that education and awareness are a critical component of any new program and also as a tool to improve existing programs.

Next Steps in Developing a Waste Diversion Plan

Based on the waste diversion opportunities identified in this report, the Administration will bring forward several discussion papers that provide further evaluation of the following critical opportunities identified as having the greatest waste diversion potential:

- i. **Organics** – this report will look at key considerations that would affect a program(s) to divert organic waste from the landfill.
- ii. **ICI Waste** – this report will discuss the current role of the City in ICI waste management and specific opportunities for future programs that target this portion of solid waste.
- iii. **Solid Waste as a Utility** – this report looks at the design of waste financing and the implications associated with user fees and property taxes.



Public and/or Stakeholder Engagement

Completion of the Study involved engagement with a number of waste-industry stakeholders. Further community engagement is planned as the Waste Diversion Plan is developed. As an initial step in the engagement process, a technical advisory panel of local experts will be established to provide an early review of the waste diversion opportunities report, various discussion papers (as described in this report or resulting from the review of civic waste management services), and communication materials prepared to support community engagement.

Communication Plan

Information from the Study will be used in a variety of waste-related communication efforts planned for 2017 including the City website, recycling education and awareness programs, Green Cart and compost depot materials, etc. The information will also be used for the proposed review of waste management services.

Environmental Implications

Greenhouse gas (GHG) emissions implications and other environmental protection measures will be estimated and reported on as the Waste Diversion Plan is developed.

Other Considerations/Implications

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

Due Date for Follow-up and/or Project Completion

The consultant's report containing final study findings will be posted to the City web-site by the end of the May. As outlined in this report, the Administration will bring forward several further reports to advance the development of a Waste Diversion Plan. These will be provided to the Standing Policy Committee on Environment, Utilities and Corporate Services in August 2017 along with a plan for engagement.

Public Notice

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

Attachment

1. Summary of Saskatoon Waste Composition and Details on ICI Waste

Report Approval

Written by: Daniel Mireault, Environmental and Corporate Initiatives

Reviewed by: Amber Weckworth, Education and Environmental Performance
Manager

Brenda Wallace, Director of Environmental and Corporate Initiatives

Approved by: Catherine Gryba, General Manager, Corporate Performance
Department

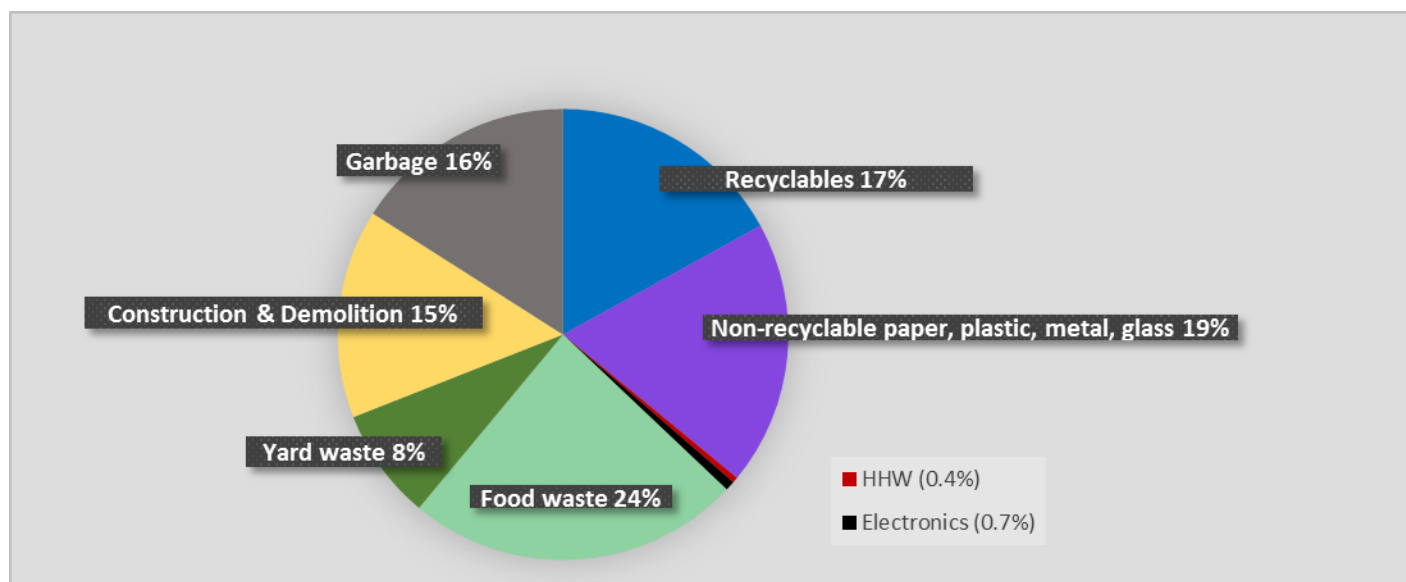
Waste Diversion Opportunities.docx

Summary of Saskatoon Waste Composition and Details on Industrial, Commercial and Institutional (ICI) Waste

The weighted overall waste composition of the various municipal solid waste streams was calculated using a model based on data provided by the waste characterization, by the City, and from information derived from Statistics Canada

Figure 1 shows the total estimated overall waste composition for all generators.

Figure 1: Overall Waste Composition



The annual estimated waste disposal rates per generator are included in Table 1.

Table 1: Estimated Waste Disposed per Waste Generator per Year

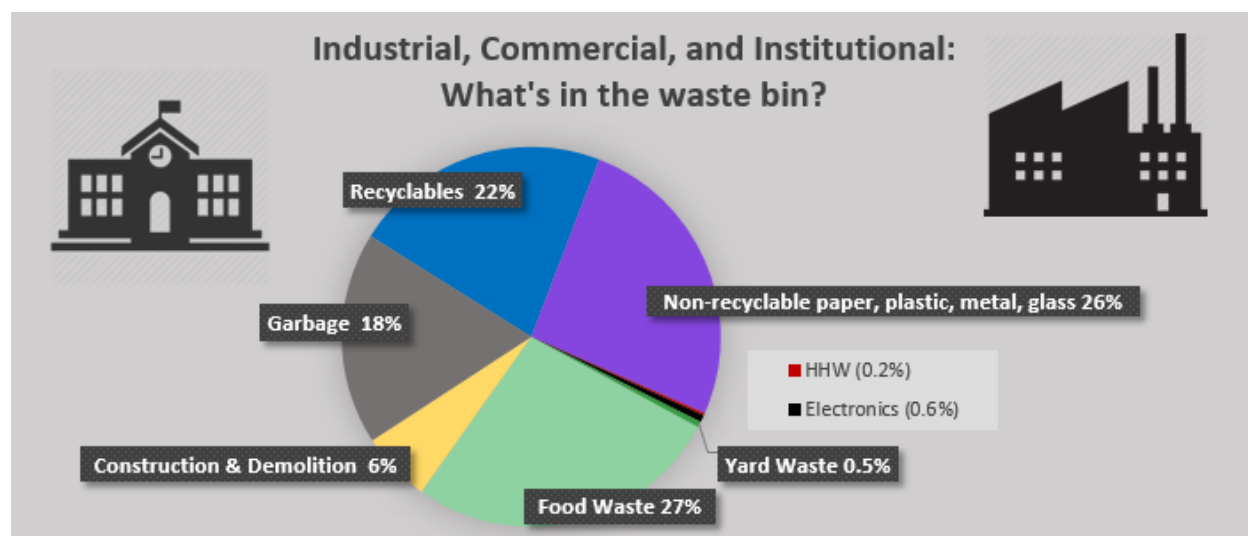
Generator	Tonne/Year
Single-family	51,900
Multi-family	14,200
Self-Haul	17,100
ICI	147,800*
C&D	16,100*
Total	247,100

* Refers to amounts that were inferred from Statistics Canada

Data provided by the City included single-family, multi-family, and self-haul data. ICI data includes data provided by the City and estimated private sector quantities. Private sector managed ICI and Construction & Demolition (C&D) wastes were inferred from Statistics Canada waste disposal data.

Figure 2 shows the composition of waste generated by the ICI Sector.

Figure 2: Summary of ICI Waste



DEFINITIONS

Construction and Demolition waste: primarily made up of wood (untreated/treated), gypsum wallboard, asphalt roofing shingles, industrial use metals, asphalt, concrete, bricks, and ceramics.

Recyclable Material: those materials currently accepted in the City of Saskatoon residential recycling programs.

Garbage (Other Material): includes diapers and sanitary products, pet waste, textiles, rubber items, bulky wastes, and other waste that is difficult to classify.

Organics: food and yard waste

Food Waste: Edible food waste consists primarily of the following categories; bakery, meat and fish, dried food, fruit and vegetables, and dairy. Inedible food includes items such as peelings, bones, and oil.

Yard Waste: includes grass (thatch and sod), leaves, other yard and garden debris, brush, and branches.

From: City Council
Sent: May 02, 2017 9:42 AM
To: City Council
Subject: Form submission from: Write a Letter to Council



Submitted on Tuesday, May 2, 2017 - 09:42
Submitted by anonymous user: 207.228.97.27
Submitted values are:

Date: Tuesday, May 02, 2017
To: His Worship the Mayor and Members of City Council
First Name: Don
Last Name: Francis
Address: 243 Don Seaman Way
City: Okotoks
Province: Alberta
Postal Code: T1S 1A4
Email: donfrancis@transformingwaste.ca

Comments:
Envirocan is Alberta based company, expanding into Saskatchewan and Manitoba. We specialize in recycling nutrients from organic waste material (Grocery stores, breweries, residential green carts, restaurants, etc.) This organic waste stream is diverted from landfill, composted and manufactured into a soil amended fertilizer sold throughout North America to commercial growers. (see our website and short video at www.transformingwaste.ca)

Envirocan participated in the consulting discussion related to Discovery Park. We would like to present our vision to the Standing Policy Committee on Environment, Utilities and Corporate Services to partner with the City to provide cost effective processing of organic waste. We can accept material from ICI, Commercial and Residential streams, including a curbside green cart program. We are interested in building a facility either at or adjacent to the proposed Recovery Park site. This proposed site will divert significant tonnage from landfill, assist Saskatoon in achieving sustainability objectives and provide an opportunity for the City to reduce overall waste management costs.

We will be presenting a short PowerPoint so we will require the AV equipment available.

Thank you for your consideration.

Don Francis
403-478-0797

The results of this submission may be viewed at:
<https://www.saskatoon.ca/node/398/submission/166327>

Recovery Park Update – May 2017

Recommendation

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

1. That the Administration prepare and release a Request for Proposal(s) for the design and construction of Phases 1 and 2 of Recovery Park.

Topic and Purpose

The purpose of this report is to seek approval from City Council to move forward with the construction of Phase 1 and 2 of Recovery Park.

Report Highlights

1. The final concept design and capital budget analysis is now complete and the Administration recommends proceeding with the construction of Phases 1 and 2.
2. Recovery Park has been designed as two Phases. Phase 1 is the Non-Scaled Diversion Area, which is the free public drop off area, and Phase 2 includes the new landfill scales and waste transfer facility.
3. When Recovery Park opens, it will replace the certain operations of existing waste management programs.
4. To achieve security, site control, and accommodate on-site storm water management, it is necessary to close public access to Dundonald Avenue.

Strategic Goal

This report supports the Strategic Goal of Environmental Leadership. Construction and Demolition (C&D) recycling and yard waste 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. Recovery Park also supports 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. Recovery Park will also support the Performance Target of diverting 70% of waste from the landfill by 2023.

Background

On May 25, 2015, City Council approved the vision for Recovery Park and the hiring of a consultant to develop a business case and options for delivery models.

On January 25, 2016, City Council awarded development of a business case and options for delivery models for Recovery Park to KPMG.

On November 28, 2016, City Council set aside \$7M in capital funding for the construction of Recovery Park.

Report

Site Layout

The final concept design for Recovery Park is now complete (Attachment 1). The layout allows for significant flexibility in the materials that can be accepted and which materials may be dropped off for free vs. charged a tipping fee. This flexibility is demonstrated using C&D waste in Attachment 2 whereby City Council could at any time change whether C&D materials are accepted at Recovery Park for free (as part of the Non-Scaled Diversion Area) or accessed by passing across the scale and charged a fee.

Construction Phasing

As shown in Attachment 1, Recovery Park has been designed as two Phases. Phase 1 is the Non-Scaled Diversion Area which is the free public drop off area and Phase 2 includes the new landfill scales and waste transfer facility.

Based on current trends, the active waste cell at the landfill will be full within three or four years and a new cell will be required. The Integrated Landfill Management Plan (Landfill Optimization) provided a strategy for optimizing the lifespan of the landfill and room for a new cell is available where the waste transfer facility is currently located. Due to revenue challenges, the Landfill Replacement Reserve does not have the funding for this phase of Landfill Optimization.

In November, the Administration reported it would explore the potential for grant funding to provide a source of funds for this and future phases. The new Green Infrastructure component of the Federal Building Canada program will not be available until mid-2018. This timing does not align with the need for moving the waste transfer facility and constructing a new waste cell.

Site Commissioning & Transitional Expenditures

When Recovery Park opens, it will replace the operations of the following existing waste management programs:

- Waste transfer station – Recovery Park becomes the new customer service area for landfilled garbage. Only City garbage trucks and commercial account holders will continue to access the active face of the landfill.
- HHW Days – Recovery Park will accommodate a permanent Household Hazardous Waste (HHW) drop-off which provides a significant service level increase over the existing eight HHW events each year.
- West Compost Depot drop-off – The Depot at Highway 7 and 11th Street West will continue to operate as a yard waste processing facility, and Recovery Park may become the drop-off centre like the East Side Compost Transfer site. Eventually organics processing may be located at Recovery Park.
- Provincial Product Stewardship programs – The Province supports the recycling of electronics (e-waste), used oil and antifreeze, batteries, tires, and paint. These materials can be collected at Recovery Park.

The Administration recommends maintaining the network of community recycling depots until the impacts of Recovery Park can be observed for six months. However, given the proximity of Recovery Park to the Meadowgreen recycling depot, the Administration recommends this location be closed immediately upon the opening of Recovery Park.

Recovery Park also provides an opportunity to add new recycling opportunities:

- Construction & Demolition (C&D) waste – Residents and businesses who separate their C&D materials by type will be able to dispose of these materials for recycling at a lower disposal fee than regular landfill rates.
- Mattress and box spring recycling – It is estimated the landfill receives over 17,000 mattresses and box springs each year, which consume airspace and cause problems for landfill equipment. A location for collecting mattresses and box springs will be created to enable recycling off-site.
- Future material recycling – There is room for growth in the number of materials collected for recycling at Recovery Park. For example, a waste processor has expressed there is interest in collecting Styrofoam for processing. The Administration is exploring this opportunity and will report separately in the coming months.

It is difficult to predict how the public will respond to the new recycling opportunities and increased service levels available at Recovery Park. For example, it is unknown how much HHW material will be collected as a result of expanding from eight days throughout the year to a permanent, year round facility. The Administration recommends commissioning the facility for a period of approximately 16 months (to January 2020) to accommodate an evaluation of the operating budget implications and to allow the transition of operations from the current landfill customer areas to Recovery Park.

Dundonald Avenue Relocation

To achieve security, site control, and accommodate on-site storm water management, it is necessary to close public access to Dundonald Avenue (which currently separates the Recovery Park site from the landfill).

SaskPower has requested that two points of access into the Queen Elizabeth Power Station continue to be provided for day to day operations and emergency access. The pending closure of Spadina Crescent West between Schuyler Street and the landfill will remove one existing Saskpower access, and the Dundonald Avenue closure would remove another access point. The remaining access into the site will be Hodgson Road (off Valley Road).

In order to maintain two access points and a factor of safety for the Power Station, the Administration proposes replacing Dundonald Avenue with a new road through Recovery Park as seen in Attachment 3.

Options to the Recommendation

City Council may choose to proceed with Phase 1 only. The Administration does not recommend this option as construction of Phase 1 and 2 together is expected to achieve construction cost savings as well as productivity savings due to reduced procurement and contract management activities. The Administration's preliminary operating budget analysis indicates the impact of Phase 1 as a stand-alone site is substantially higher due to the requirement to continue to manage existing landfill customer service areas, as well as the inability to implement user fees as there is no

scale or scalehouse. The co-location of these two operations provides significant opportunity to be efficient in the number of staff required to supervise all activities.

City Council may choose to find a separate funding source for the relocation of Dundonald Avenue once Spadina Crescent W is actually closed.

Public and/or Stakeholder Involvement

As reported in November 14, 2016, internal and external stakeholders have been deeply involved in the development of the Recovery Park plans so far. Involvement has included interviews with private sector businesses currently operating in waste and recycling across Canada, the Saskatchewan Ministry of Environment, several Not-for-profits, and a multi-division team that includes: Environmental and Corporate Initiatives, Transportation, Water and Waste Stream, Saskatoon Water, Construction and Design, Solicitors, Business Administration, Finance and Purchasing.

Communication Plan

The Administration has held-off finalizing a communications plan for Recovery Park, waiting to confirm whether only Phase 1 or both Phases 1 & 2 will proceed to construction later in 2017 with operations beginning by fall 2018. Instead of using a name such as 'Recovery Park' to communicate the project, it is recommended that the City convey the project as an 'expansion of the waste diversion (recycling/reclamation) facilities' at the Saskatoon Regional Waste Management Centre (SRWMC). This strategy reduces the need to communicate an entirely new facility and helps to reinforce recycling and reclamation as a standard waste management practice. The major challenge with this approach is that the Centre is currently referred to as 'the Landfill' and is largely known as the 'place to take your garbage'. To help overcome this challenge, a multi-channel communications approach will focus on building awareness and understanding of the full-suite of services offered at the SRWMC. Communications will also be needed to educate users of existing programs that are closing, such as Household Hazardous WasteDays and the West Compost Drop-off.

Policy Implications

The Administration continues to work on a Civic Re-use Policy to support the beneficial re-use of materials diverted at Recovery Park in civic projects and operations such as concrete, asphalt shingles, glass, compost, and wood waste.

Financial Implications

Capital Funding Estimates

The Administration expects the cost to complete both project phases to be lower than previously communicated (\$14M). The new estimate is based on more refined cost estimates utilizing the final design concept, as well as the recent downturn in development that is creating a reduction in construction prices. The Administration does expect that the estimated cost for a combined delivery of Phase 1 and 2 may be greater than the \$7M in capital funding currently available for the project, but actual costs to construct the facility will only become known once the procurement phase is complete.

The Administration recommends continuing to proceed with procuring construction services for Phase 1 and 2. If the construction pricing received from contractors as part of the RFP process is higher than the available capital, a negotiation and de-scoping exercise could occur to potentially deliver the facility for the \$7M budget. A number of de-scoping items would be listed in the RFP including reducing or eliminating landscaping, utilizing more affordable surfacing (gravel), reducing amenities and technology within the scalehouse or a combination thereof.

Following the negotiation and de-scoping exercise, the Administration would seek the advice of City Council to prioritize the items to be removed from the scope of work, or to increase funding to cover the shortfall as part of the 2018 Budget.

In addition to the costs for constructing Phases 1 and 2, the new requirement to replace Dundonald Avenue is expected to add \$810,000 to the cost of the project. This replaces the existing road with a gravel road similar to what is accessible to SaskPower today.

The current estimated cost (net of revenues) for commissioning the site over 16 months is \$240,000. Further explanation of the operating plan, along with a recommendation of rates to be charged during the commissioning and transitional period, will be brought to City Council in August 2017. The specific impact of site commissioning on the capital project will also be provided at that time.

Environmental Implications

Environmental implications are summarized in Attachment 4 – Frequently Asked Questions.

Safety/Crime Prevention through Environmental Design (CPTED)

CPTED will be integrated into the design of Recovery Park and will be a requirement of the RFP(s) for completion of the design and construction of the facility.

Other Considerations/Implications

There are no privacy implications or considerations.

Due Date for Follow-up and/or Project Completion

The Administration will report the results of the RFP to the Standing Policy Committee on Environment, Utilities and Corporate Services, along with reports seeking awards of contract as required, once the procurement process is complete.

The Administration will also provide a report to the Standing Policy Committee on Environment, Utilities and Corporate Services in August 2017 outlining the plans for operating Recovery Park, including outlining the process for securing private service contractors for some waste streams.

Public Notice

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

Attachments

1. Recovery Park Concept
2. Recovery Park Flexibility
3. Dundonald Avenue Relocation
4. Frequently Asked Questions

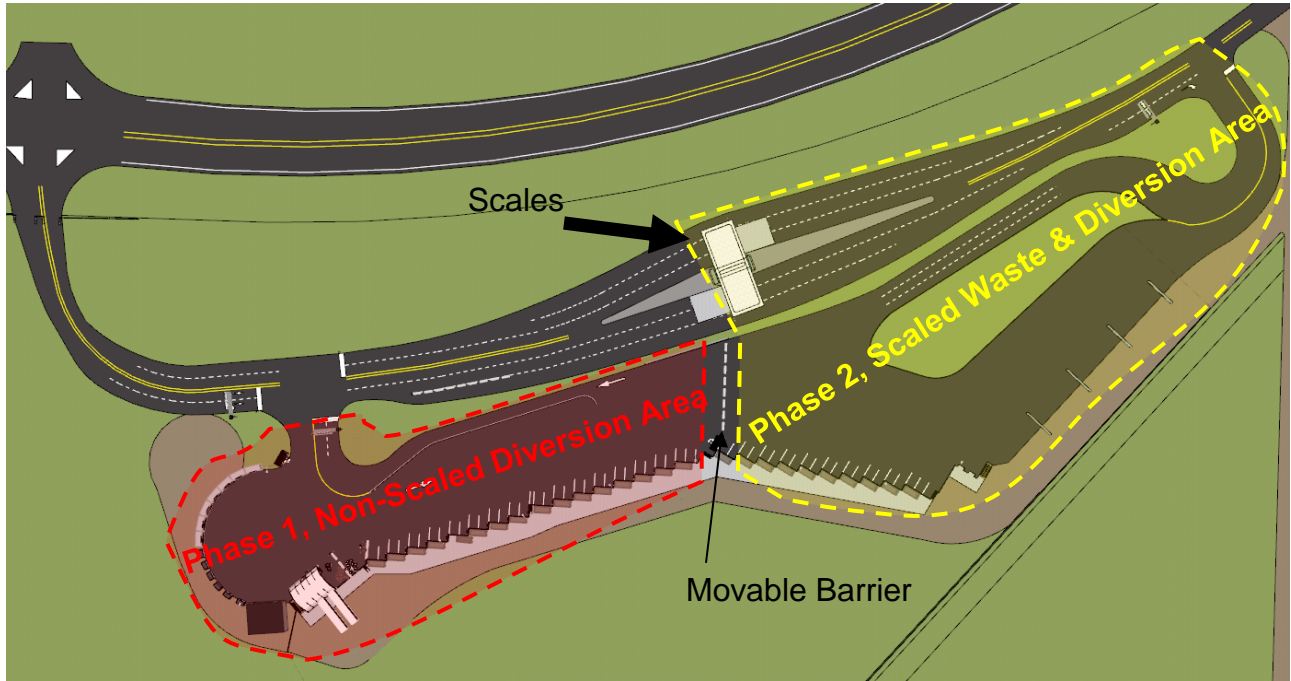
Report Approval

Written by: Josh Quintal, Project Engineer, Energy and Sustainability Engineering

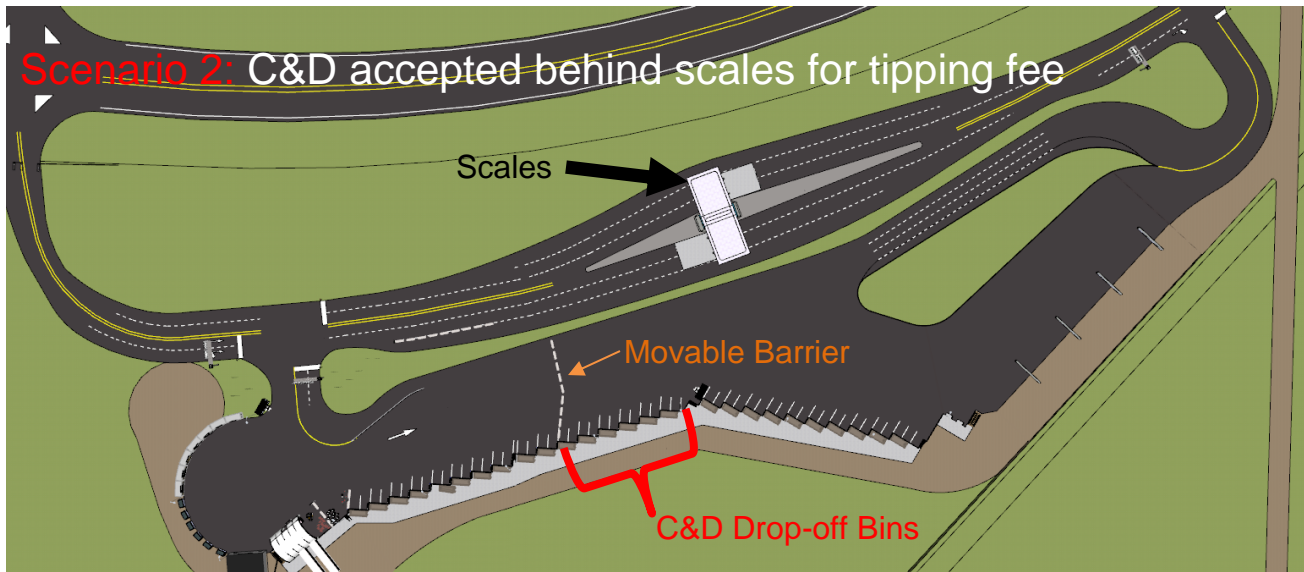
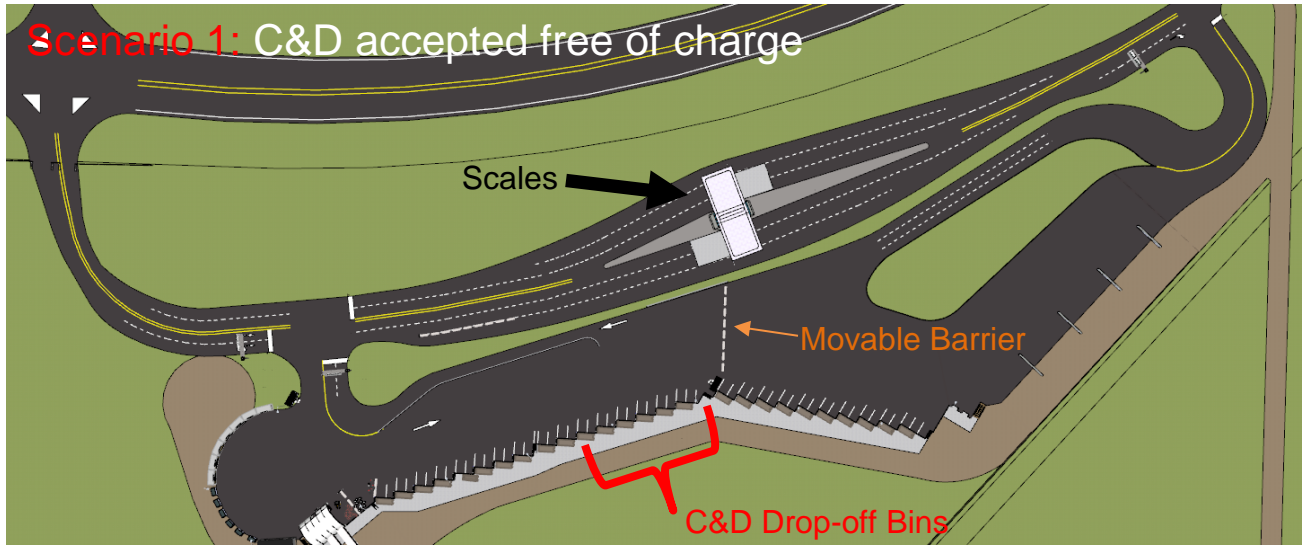
Reviewed by: Chris Richards, Energy and Sustainability Engineering Manager
Brenda Wallace, Director of Environmental and Corporate Initiatives
Michelle Jelinski, Project Engineer, Water & Waste Stream
Jason Turnbull, Director of Business Administration
Jeff Jorgenson, General Manager, Transportation and Utilities
Department
Kerry Tarasoff, CFO/General Manager, Asset and Financial
Management Department

Approved by: Catherine Gryba, General Manager, Corporate Performance
Department

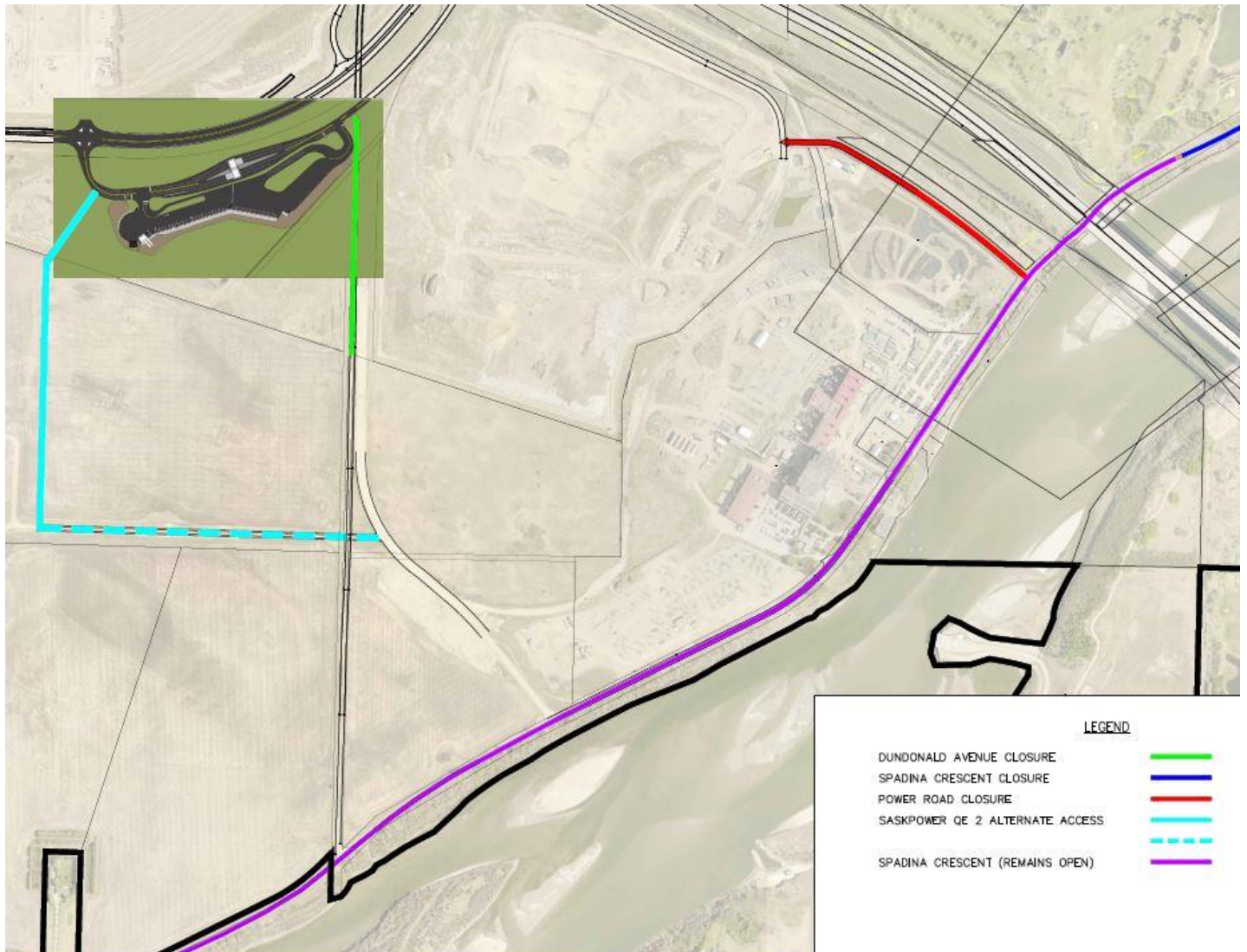
Recovery Park - Conceptual Layout



Recovery Park - Flexibility



Dundonald Ave Relocation



Frequently Asked Questions

What is Recovery Park?

Current waste diversion programs are achieving a waste diversion rate of 21.8%. In order to begin moving toward the diversion target of 70% by 2023, the City is proposing to expand waste diversion (recycling/reclamation) capabilities at the Saskatoon Regional Waste Management Centre (SRWMC, commonly referred to as the Landfill).

The expansion – currently named *Recovery Park* - will provide updated scales & scale house / operations office; construction and demolition (C&D) waste recycling; Household Hazardous Waste (HHW) collection; composting; recycling; a gently used item exchange, and solid waste transfer bins.

What are the overall benefits?

By providing all of these services at the SRWMC, citizens and City operations would have a “one-stop” location where numerous waste diversion and waste disposal needs would be met. In comparison to operating separate sites, the City should realize cost savings by sharing infrastructure (e.g. scales and scale house) and operational resources (i.e. less staff are needed to manage a single site with multiple services vs. multiple sites with single services). Greater customer service and diversion rates should also be achieved. New revenues or operational savings could potentially be realized through bulking of HHW and sale of recovered recyclable materials.

- **Toward the Waste Diversion Goal of 70%** - Through the operation of Recovery Park as a centralized 7 day a week drop-off location for waste management and waste diversion, it is expected that greater diversion will be achieved over existing programs (e.g. HHW days, recycling depots). Along with the increased participation in existing programs, the introduction of C&D recycling should result in upwards of 10,000 tonnes of waste diverted annually in the initial years. Tonnages are expected to increase in subsequent years as the community becomes more familiar with the site and recycling opportunities. Recovery Park may increase Saskatoon’s waste diversion rate from 21% to 30% or greater.
- **Extends the life of the Landfill** - Waste diversion is necessary if Saskatoon wishes to defer or eliminate its need for a new landfill. Last year, approximately 100,000 tonnes of garbage was deposited at the Landfill, consuming space that has been valued at \$12M. If the City can achieve its Performance Target to increase the waste diversion rate to 70% by 2023, the Landfill will be available for an additional 25 years. This has an asset value greater than \$390M.
- **Reduced Greenhouse Gas Emissions** - Much of the waste disposed of within landfills breaks down without oxygen resulting in the release of Methane, which is a potent greenhouse gas (GHG), 25 times stronger than carbon dioxide. Waste diverted from the landfill will result in fewer emissions. Less material breaking down also results in less generation of toxic leachate, which pollutes

groundwater and surface water or causes increased demands on municipal wastewater treatment systems that may or may not be able to handle the toxins found in the leachate.

Why does the City want to divert Construction & Demolition (C&D) waste from the Landfill?

C&D waste is often inert, dry, bulky material. This waste takes up a significant amount of space at landfills as it cannot be compacted well. The City receives approximately 10,000 tonnes of C&D waste each year. This material consumes approximately 17,000 cubic-meters of landfill space, having an asset value of \$1.5M.

Through technological advancements and innovation in C&D processing and reuse, C&D waste is being used within roadways, landscaping, new construction, composting, and waste to energy projects.

Why does the City want to divert Household Hazardous Waste from the Landfill?

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. The City's Landfill is not a hazardous waste facility and therefore should not receive these materials.

What are the benefits of composting?

Diverting organic waste from the landfill offers several environmental benefits in terms of land, air, and water quality. Through the use of compost as a soil amendment in gardens or landscapes, nutrients that would normally be locked up in a landfill are recycled into the ecosystem where they are once again available to plants. Compost added to soils also improves moisture retention properties so rainfall run-off is reduced. Organic material that is buried in a landfill environment will also produce high volumes of Methane, a potent contributor to climate change.

What is the proposed cost?

The proposed cost for a combined delivery of Phase 1 and 2 is approximately \$10M. The cost is lower than previously communicated costs (\$14M) due to further estimate refinement and the recent downturn in development and subsequent decline in construction prices.

What are the timelines?

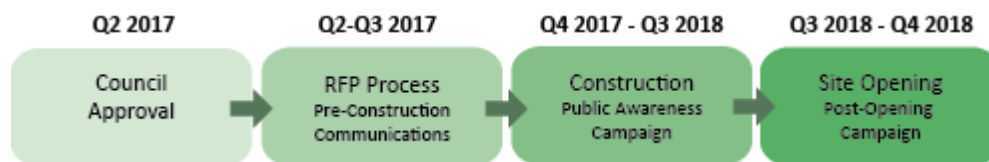
Assuming Phase 1 and 2 are delivered together:

Council Approval – May 23, 2017

Finalize Design and Procure Construction services – May to August, 2017

Construction of Recovery Park – August 2017 to September 2018

Open Recovery Park – October 1, 2018



Can Phase 1 (non-scaled area) be constructed and operated before Phase 2?

The operating impact of Phase 1 as a stand-alone site is substantially higher due to the requirement to continue to manage existing landfill customer service areas as well as new operations at Recovery Park. To properly operate Phase 1, an additional 6.5 employees would be required at two shifts per week totalling 13 FTE's. By combining the new operations with the existing landfill operations, existing staff can manage some new operations and only an additional 4 employees would be required (9 FTE's). Essentially, existing attendants can move between managing the waste drop-off and the recycling drop-off because they are located next to each other.

The fixed costs for operating Phase 1 as a stand-alone facility is \$380,000 more than operating Phase 1 & 2 together due to the increase in FTE's, increase in site management and maintenance, and requirement for additional equipment.

There will also be no ability to recover any costs for a Phase 1 stand-alone due to having no scale or scale house and also no ability to accept commercial loads.

In addition to the operational savings achieved by operating Phase 1 & 2 together, there will be capital and time savings in the design and construction of the facility. Two sites will require two procurements, two contracts, and potentially two different contractors. Costs would be incurred to mobilize and demobilize twice as well.

Is Phase 2 Required?

Phase 2 will need to be delivered in three to four years' time regardless. Based on current trends, the active waste cell at the landfill will be full within three or four years and a new cell will be required. The Integrated Landfill Management Plan (Landfill Optimization) provided a strategy for optimizing the lifespan of the landfill and room for a new cell is available where the waste transfer facility is currently located. Due to revenue challenges, the Landfill Replacement Reserve does not currently have the funding for this phase of Landfill Optimization. When the move is required to begin in two to three years' time, funding through borrowing will still likely be required.

If Phase 2 does not go ahead within 3-4 years, the landfill will have no space to continue to accept waste.

How will the project be communicated?

It is recommended that the project move away from using the name 'Recovery Park' and instead focus on communicating an 'expansion of the waste diversion (recycling/reclamation) facilities' at the SRWMC. This strategy reduces the need to communicate a new facility name and helps to reinforce recycling and reclamation as standard waste management practices.

A multi-channel communications approach will focus on building awareness and understanding of the expanded recycling/reclamation services offered at the SRWMC. The first phase of communications could include signage at the site which illustrates a rendering of the new facility. A handbill will also be distributed to existing SRWMC customers. The second phase, six months prior to opening the facility, will focus on building widespread awareness through activities such as the city's website, billboards, social media, radio advertising, utility insert and more. After the opening of the new facility, communications will be needed to educate users of existing programs which are closing, such as Household Hazardous Waste and the West Compost Drop-off.

How does this support the City of Saskatoon's Strategic Directions?

This project supports the Strategic Goal of Environmental Leadership. C&D recycling and 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. The expansion of services also supports 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. Recovery Park will also support the Performance Target of diverting 70% of waste from the landfill by 2023.

Proposed Small Power Producer Program Rate Increase

Recommendation

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

1. That the proposed Small Power Producer Program rate be approved for Saskatoon Light & Power as outlined within this report; and
2. That the City Solicitor prepare the necessary amendment to Bylaw No. 2685, The Electrical Light and Power Bylaw, for consideration by City Council.

Topic and Purpose

To request approval of a 2% increase of the City of Saskatoon (City)'s Small Power Producer Program rate to match SaskPower's rate increase effective January 1, 2017.

Report Highlights

1. The Small Power Producer Program is ideal for residents or businesses that want to generate some of their own electricity, and earn money by producing some electricity back onto the grid.
2. Ten residents and businesses are generating electricity under the Small Power Producer Program.

Strategic Goal

This report supports the four-year priority to continue implementation of the Energy and Greenhouse Gas Management Plan, under the Strategic Goal of Environmental Leadership. The Energy and Greenhouse Gas Management Plan lays out a number of actions related to the development of renewable energy.

Background

The City has historically set its rates for electricity to match those rates established by SaskPower. Matching the rates ensures there are no inequities between customers regardless if they are located within the City's or SaskPower's franchise areas.

Report

Saskatoon Light & Power (SL&P)'s Customer Self-Generation Programs allow customers to generate a portion of their own electricity using solar panels, thereby offsetting their power costs. There are two self-generation options for customers to select from: 1) the Net Metering Program; and 2) the Small Power Producer Program. In 2016, the number of customers taking advantage of these programs increased from 46 to 70, and generated 432 MWh of electricity (about 0.04% of the annual electricity sold to customers). This is enough electricity to power roughly 50 homes.

Through the Small Power Program, SL&P customers generate electricity for their own use and sell excess electricity back to the utility. This program has been available to

Proposed Small Power Producer Program Rate Increase

customers since 2010 and the City has historically matched SaskPower's Small Power Producer Program rate, which was \$0.10610 per kilowatt-hour (\$/kWh) in 2016, and increased by 2% each year (0.10822 \$/kWh in 2017).

In 2016, SL&P added the Net Metering Program to its customer self-generation options. Through the program, customers receive credits for generating more power than they need during the day, which they use at nighttime or when they are using more electricity than they can generate on their own. Sixty-eight customers who were originally in the Small Power Producer Program were given the option to switch to the new program. Fifty-eight customers elected to switch programs, while ten customers remained on the Small Power Producer Program. In 2017, all new applicants have indicated that they will participate in the Net Metering Program.

Options to the Recommendation

Other options include either a rate increase different from SaskPower or no rate increase at all. The Administration does not recommend either alternative to ensure customer rates are equal within the different customer classes, regardless of their service provider.

Communication Plan

Upon approval of the rate change, the City's website will be updated to reflect the new rates. Customers impacted by the rate change will receive notice in the first bill where the rate change is applied.

Financial Implications

The proposed 2% rate increase will cost SL&P less than \$100 more in 2017 than paid to Small Power Producer customers in 2016. The total electricity purchased from the Small Power Producer Program in 2016 was \$3,365.92.

Other Considerations/Implications

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

Due Date for Follow-up and/or Project Completion

Reports will be forwarded to City Council as required for any future rate increases.

Public Notice

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

Report Approval

Written by: Nathan Ziegler, Sustainable Electricity Engineer
Reviewed by: Trevor Bell, Director of Saskatoon Light & Power
Approved by: Jeff Jorgensen, General Manager, Transportation & Utilities
Department

Capital Project #1243 – WWT – Lift Station Upgrades – Lift Station Assessment 2017 – Award of Engineering Services

Recommendation

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

1. That the proposal submitted by MPE Engineering Ltd. for engineering services for the Lift Station Assessment 2017, for a total upset fee of \$395,204.36 (including GST), be approved; 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 obtain City Council approval to award a contract to MPE Engineering Ltd. (MPE), the highest rated respondent to the City's Request for Proposal (RFP). MPE will conduct a comprehensive condition and capacity review, and subsequent infrastructure strategy that will result in a ten-year maintenance and capital plan for the City's lift station infrastructure.

Report Highlights

1. The City operates and maintains 31 lift stations that are critical in the wastewater and storm water collection networks. A condition assessment of these lift stations is now required.
2. Information presented in the 2017 Lift Station Assessment report will be used by the City to support long-range planning of upgrades and financial expenditures.
3. An RFP was issued for professional services that will result in a report prioritizing work for a ten-year period to maintain and expand the City's lift stations. The proposal, submitted by MPE, was determined to be the most favourable to the City.
4. External services are required to complete this project as this work involves specialized design teams drawing on experience and expertise from projects throughout Canada.

Strategic Goals

This report supports the Strategic Goals of Asset and Financial Sustainability and Quality of Life, through planning and budgeting for lifecycle maintenance and upgrades of the facility's equipment and by minimizing the effects of City sewer operations on the surrounding neighbours while meeting expectations and complying with regulations.

Background

The City currently provides sewage collection and servicing to existing customers through sanitary sewer lift stations and sewer mains. There are 31 sanitary and storm lift stations of different age, capacity, and condition. The estimated combined value of these assets is estimated to be in excess of \$200 million.

In 2004, City Council approved the recommendation for Cochrane Engineering Ltd. to provide engineering services to prepare the Lift Station Condition Assessment for the City of Saskatoon, Wastewater Treatment Plant report. The report identified a series of required upgrades, scheduling, and cost estimates for the City's lift stations over a 15-year period. During this period, the report has been instrumental in the preparation of capital scheduling and execution of required upgrades, totalling over \$15 million. The usefulness of the information provided in the 2004 report has run its course. A renewed asset management and capital expenditure plan is essential in continuing to carry out improvements.

Report

Lift Station Infrastructure

The City's sanitary and storm lift stations are a critical part of the wastewater and storm water collection networks which require ongoing maintenance and upgrades. The City has lift station facilities that require multidisciplinary assessments of existing equipment and facility structures. National Standardization Code reviews, safety code reviews, and asset evaluations will be components that are included in the 2017 Lift Station Assessment report.

Continuous Improvement

Information presented in the 2017 report will be used by the City to support long-range planning of upgrades and financial expenditures. Ultimately, the information contributes to the City's capital investment plan for the next ten years, and allows for financial models to be generated to project funding needs.

Request for Proposal

In March 2017, an RFP was issued for professional services to conduct a condition assessment that will result in a maintenance and capital plan to focus infrastructure spending where it is most needed. The following nine proposals were received:

- Stantec Consulting Ltd. (Saskatoon, SK)
- Associated Engineering (Sask) Ltd. (Saskatoon, SK)
- Amec Foster Wheeler Environment & Infrastructure (Saskatoon, SK)
- CH2M HILL Canada Limited (Edmonton, SK)
- CIMA+ Canada Inc. (Saskatoon, SK)
- ISL Engineering and Land Services Ltd. (Saskatoon, SK)
- KGS Group Consulting Engineers (Regina, SK)
- WSP Canada Inc. (Saskatoon, SK)
- MPE Engineering Ltd. (Saskatoon, SK)

Following a systematic evaluation of the proposals, the Administration selected the proposal from MPE as most favourable for the City.

Requirement for External Services

Work of this nature has been traditionally procured from the private sector. The work involves specialized design teams drawing on experience and expertise from projects throughout Canada. In order for the City to complete this work in-house, additional specialized staff would need to be hired for this project and then alternate work would need to be found upon project completion. City staff will implement the majority of the maintenance plan recommendations, with a combination of City staff and third party tenders used to implement capital upgrades and construction.

Further, specialized technology is required for this work. Using private sources means that the City does not need to purchase, maintain, and upgrade the technology. It is a more cost-effective method to pay for a service when required, rather than investing in technology required periodically. Specifically in this project, these items include ultrasonic and thermal inspections of equipment to be carried out as part of the commission.

Options to the Recommendation

City Council could not accept the proposal and reject all other proposals; however, the Administration does not recommend this option.

Financial Implications

The net cost to the City for engineering services, as described above and within the proposal submitted by MPE, would be as follows:

Consultant Labour	\$358,462.00
Contingency	<u>17,923.10</u>
Total Proposal Price	\$376,385.10
GST (5%)	<u>18,819.26</u>
Total Upset Fee	\$395,204.36
GST Rebate	<u>(18,819.26)</u>
Net Cost to the City	<u>\$376,385.10</u>

There is sufficient funding in Capital Project #1243 – WWT – Lift Station Upgrades to fund this study.

Environmental Implications

The recommendation to form an Engineering Services Agreement with MPE is not associated with a specific environmental implication. However, the updated ten-year maintenance and capital plan will require subsequent construction and/or maintenance activities, some of which are associated with resource use and greenhouse gas emissions. The maintenance and capital plan will provide redundancy and resiliency of lift station assets. The overall impact on greenhouse gas emissions has not been quantified.

Other Considerations/Implications

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

Due Date for Follow-up and/or Project Completion

A report summarizing the results of the assessment will be completed June 2018. Based on the findings and the recommendations given, the Administration will communicate an updated ten-year capital and asset management plan.

Public Notice

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

Report Approval

Written by: Pamela Hamoline, Project Engineer, Saskatoon Water
Reviewed by: Larry Schultz, Engineering Services Manager, Saskatoon Water
Reid Corbett, Director of Saskatoon Water
Approved by: Jeff Jorgenson, General Manager, Transportation & Utilities
Department

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Landfill Gas Engine-Generator Major Maintenance Services

Recommendation

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

1. That the proposal submitted by Finning Canada for the Landfill Gas Engine-Generator Maintenance Services be accepted; and
2. That Purchasing Services be authorized to issue a Blanket Purchase Order to Finning Canada for the supply of maintenance services for a one-year term, for a total estimated cost (including GST and PST) of \$432,313, with the option of Administration to extend the Blanket Purchase Order for one additional year.

Topic and Purpose

That City Council approve a Blanket Purchase Order to Finning Canada for the supply of maintenance services for the Landfill Gas Engine-Generator sets.

Report Highlights

A Request for Proposal (RFP) was issued March 2, 2017. Two proposals were received, and the proposal submitted by Finning Canada was the highest rated proponent based on a predetermined set of evaluation criteria.

Strategic Goals

This report supports the Strategic Goal of Environmental Leadership by reducing greenhouse gas (GHG) emissions tied to City of Saskatoon (City) operations. It also supports the Strategic Goal of Asset and Financial Sustainability to increase revenue sources and reduce reliance on residential property taxes.

Background

The City, through Saskatoon Light & Power (SL&P), operates and maintains the Landfill Gas Power Generation Facility which includes two engine-generator units that combust the landfill gas to generate electricity. Enough electricity is generated to power approximately 1,200 homes. Maintenance services have been completed using private contractors since operation began in 2014.

Report

The engine-generator units require regular maintenance service every 1,000 hours of engine runtime, for an estimated eight services per year. In addition, the engine-generator units are approaching 24,000 hours of runtime that will require a larger maintenance service called an In-Frame Overhaul.

Landfill Gas Engine-Generator Major Maintenance Services

An RFP was issued March 2, 2017, to contract a qualified engine-generator service provider to perform the maintenance services for a one-year term with the option to extend the contract for one additional year.

Proposals were received from Finning Canada (Saskatoon, SK) and Orrocal Enterprises (Edmonton, AB) on March 23, 2017, and were deemed compliant with the requirements defined within the RFP. The proposals were evaluated on the following requirements:

- Cost - 50%
- Previous Work Experience - 40%
- Shop Rates - 6%
- Environmental Considerations - 4%

The proposal submitted by Finning Canada was rated the highest in the evaluation and was determined to be the most favourable for the City.

Options to the Recommendation

In order for the City to complete this work in-house, additional specialized staff would need to be hired. This is a potential option as more generation projects are constructed and begin operation. At this time, using contractors is the most economical approach.

Financial Implications

Funding will be provided from the 2017/2018 Operating Budgets 03-200– Landfill Gas. The Landfill Gas System generates on average \$100,000 of revenue per month through electricity sales to SaskPower through their Green Power Program.

The total value for the maintenance services for the one-year term (2017-2018) including taxes is estimated at:

Contract Amount	\$389,471
GST (5%)	19,474
PST (6%)	<u>23,368</u>
Sub-Total	\$432,313
GST Rebate (5%)	<u>(19,474)</u>
Net Cost to the City	<u>\$412,839</u>

Environmental Implications

The ultimate goal for any landfill gas project is to prevent the uncontrolled release of harmful gases into the atmosphere. By collecting and combusting these gases, landfill operators are able to reduce GHG emissions and improve local air quality. In 2016, GHG emissions from the landfill were reduced by over 50,000 tonnes CO_{2e} per year, which is the equivalent of removing over 10,000 vehicles from the road.

Other Considerations/Implications

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

Due Date for Follow-up and/or Project Completion

Procurement of maintenance services will be required every two years. If Administration is not satisfied with the performance of services, they could be competitively procured again after one year.

Public Notice

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

Report Approval

Written by: Nathan Ziegler, Sustainable Electricity Engineer
Reviewed by: Trevor Bell, Director of Saskatoon Light & Power
Approved by: Jeff Jorgensen, General Manager, Transportation & Utilities
Department

EUCS NZ – Landfill Gas Engine-Generator Major Maintenance Services

Landfill Gas Collection Wellfield Expansion – Award of Engineering Services

Recommendation

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

1. That the proposal submitted by Tetra Tech Canada Inc. for engineering services for the detailed design of the Landfill Gas Wellfield Expansion, for a total upset fee of \$157,506.30 (including GST) be approved; 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 award an engineering services contract to provide a detailed design of the Landfill Gas (LFG) Collection Wellfield Expansion.

Report Highlights

1. In 2016, the LFG Collection System reduced the Landfill's greenhouse gas emissions by approximately 55,800 tonnes of CO₂e, the equivalent of removing 11,000 cars from the road. The LFG Collection System also generated enough electricity to power the equivalent of 1,200 homes.
2. As the Landfill continues to expand, an expansion of the LFG wellfield will allow for greater capture of LFG, and therefore, an increase in greenhouse gas destruction.
3. A Request for Proposal (RFP) for engineering services for the detailed design of the Landfill Gas Wellfield Expansion was issued on March 14, 2017. The proposal submitted by Tetra Tech Canada Inc. (Tetra Tech) was determined to be the most favourable to the City.

Strategic Goals

This report supports the Strategic Goal of Environmental Leadership by creating new sources of green energy and by reducing greenhouse gas emissions tied to the operation of the Saskatoon Landfill. In addition, the capture of a greater amount of LFG will allow for an increase in the quantity of fuel available for Saskatoon Light & Power's Landfill Gas Power Generation Facility, thereby replacing conventional energy sources with green energy technologies.

This report also supports the Strategic Goal of Asset and Financial Sustainability by exploring alternate sources of revenue to pay for ongoing operations, since the capture and destruction of greenhouse gasses could provide a future revenue source under the forthcoming carbon tax.

Background

On February 6, 2012, City Council adopted a recommendation to award a tender for construction of the Saskatoon Landfill Gas Collection and Flaring Facility. This project included the first phase of Landfill Gas infrastructure construction at the Saskatoon Landfill.

Report

Current Landfill Gas Operations

The LFG Collection System was commissioned in 2013 and consists of 29 vertical wells, piping, an LFG Facility, and an enclosed flare. Landfill gas is captured and destroyed by either combusting the LFG in the enclosed flare or by generating electricity at the Landfill Gas Power Generation Facility, operated by Saskatoon Light & Power.

The benefits of LFG capture and destruction are two-fold. Methane, a primary constituent of LFG, is a potent greenhouse gas (GHG) and is produced by the Landfill as organic waste degrades. In 2016, the Landfill generated approximately 142,400 tonnes of equivalent carbon dioxide (CO_{2e}) emissions as a result of organics decomposition. The LFG System successfully captured and destroyed approximately 55,800 tonnes of CO_{2e}, the equivalent of removing 11,000 cars from the road.

Beyond GHG emissions reduction, Saskatoon Light & Power produced 12,100 GWh of electricity from the Landfill gas in 2016, the equivalent of powering 1,200 homes. This produced approximately \$1.3 million in revenue from electricity sales to SaskPower.

Landfill Gas Infrastructure Expansion

The Integrated Landfill Management Plan developed in 2010 identifies the capital investments required to optimize the life of the Landfill safely and sustainably. At the present stage of waste filling, the Integrated Landfill Management Plan identifies several LFG collection expansion investments. With approximately 40% of the Landfill's GHG emissions being destroyed by the current LFG System, there is an opportunity to increase this by expanding the LFG wellfield.

The proposed LFG wellfield expansion includes the following three components:

1. Extension of the existing main LFG collection header pipe along the Landfill's west and south extents to the current waste filling cell;
2. Construction of horizontal LFG collectors in the current waste filling cell; and
3. Construction of vertical LFG wells along the west slope of the Landfill.

Construction of horizontal LFG collectors is a time-sensitive process. As waste is deposited in the filling cell, the topographical contours constantly change as the cell is built upwards. Failure to construct horizontal LFG collections at proper topographical intervals will reduce the overall capture efficiency of the LFG Collection System.

Extension of the LFG header pipe is necessary to connect the planned horizontal LFG collectors to the LFG Facility for active capture of LFG in the current waste cell.

Vertical LFG well construction on the west slope of the Landfill will capture LFG in an area of the Landfill that is permanently closed and identified for final cover construction.

Request for Proposals

To proceed with the construction of the LFG infrastructure listed above, an RFP was released on March 14, 2017 and closed on March 31, 2017. The scope of this proposal included provision of a detailed design (including drawings and tender specifications), tendering assistance and construction oversight of the proposed work. The following nine proposals were received:

- Asher Engineering Ltd. (Calgary, AB)
- Comcor Environmental Limited (Caimbridge, ON)
- Enerpro Engineering Inc. (Calgary, AB)
- GHD (Edmonton, AB)
- Golder Associates (Ottawa, ON)
- PINTER & Associates Ltd. (Saskatoon, SK)
- Stantec (Edmonton, AB)
- Tetra Tech Canada Inc. (Saskatoon, SK)
- XCG Consultants (Edmonton, AB)

An evaluation team comprised of members from the Water & Waste Stream and Environmental & Corporate Initiatives divisions scored the proposals in accordance with the evaluation criteria identified in the RFP, and the highest scoring proposal was submitted by Tetra Tech. The Administration recommends awarding the detailed design of the LFG Wellfield Expansion to Tetra Tech. A summary of the proposed fees for the engineering services are as follows:

Base Proposal Amount	\$142,506.00
Contingency	7,500.00
GST (5%)	<u>7,500.30</u>
Subtotal	\$157,506.30
GST Rebate (5%)	<u>(7,500.00)</u>
Net Cost to the City	<u>\$150,006.00</u>

Requirement for External Services

An external engineering firm was required for this work because the City does not have expertise in gas well field design. There will be a limited number of expansions in the future and retaining these types of specialist engineers is not recommended.

Options to the Recommendation

Options to the recommendation include deferring the wellfield expansion to a later date. This is not recommended for the reason stated above regarding optimal timing for horizontal LFG collection construction. Deferring design and construction will delay the opportunity to capture and destroy additional LFG emissions.

Public and/or Stakeholder Involvement

There is no public involvement. Saskatoon Light & Power, who operate the Landfill Gas Power Generation Facility and the power purchase agreement with SaskPower, have been consulted.

Communication Plan

At this stage, a communication plan is not required. However, should the LFG Wellfield Expansion contract be awarded and the project implemented, the following communication tools are recommended:

- A Public Service Announcement to communicate the positive health and environmental benefits;
- Social media posts on Facebook and Twitter highlighting key impacts; and,
- Updates to the City's website.

Financial Implications

Funds for this work are available in Capital Project #2051 - Landfill Optimization – Landfill Gas. Total funds available for this project are \$750,000 and are intended for engineering services, tendering, construction and project management.

Presently, the City of Saskatoon earns \$1.3 million per year from electricity sales to SaskPower. Expansion of LFG collection infrastructure increases the capacity for future sustainable electricity production and revenues.

The Federal Carbon Tax will assign \$10 to \$50 per tonne of carbon dioxide emissions over the next five years, starting in 2018. If 2016 emissions reduction due to LFG emissions (55,800 tonnes CO_{2e}) were assigned a value based on the proposed carbon tax pricing scheme, it would represent a \$558,000 value at \$10 per tonne and \$2.8 million value at \$50 per tonne per year.

Environmental Implications

Expansion of the LFG collection infrastructure will result in greater GHG emission reductions from the Landfill. The amount of GHG reductions cannot be estimated until the detailed design has been completed.

Other Considerations/Implications

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

Due Date for Follow-up and/or Project Completion

Completion of this work is expected in summer 2018.

Public Notice

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

Report Approval

Written by: Patrick Schmidt, Project Engineer

Landfill Gas Collection Wellfield Expansion – Award of Engineering Services

Reviewed by: Michelle Jelinski, Senior Project Management Engineer
Russ Munro, Director of Water & Waste Stream
Approved by: Jeff Jorgenson, General Manager, Transportation & Utilities
Department

EUCS PS – Award of Engineering Services for Expansion of the Landfill Gas Collection Wellfield – RFP 17-0011.docx

Request to Exceed in Excess of 25% of Purchase Order #363928 — Marquis Phase VIII Primary Water Main Valves Repair Work

Recommendation

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

That the Administration be given approval for Purchase Order #363928 for Marquis VIII Primary Water Main Valves Repair Work to exceed 25% of the purchase order value.

Topic and Purpose

The purpose of this report is to request City Council approval for Purchase Order #363928 for Marquis VIII Primary Water Main Valves Repair Work to exceed 25% of the purchase order value. Costs were exceeded due to unforeseen on-site issues.

Report Highlights

1. During a routine inspection, it was found that two valve chambers on a Primary Water Main (PWM) along Faithfull Avenue between Marquis Drive and 60th Street, had filled with water, which ruined the valves.
2. Repair work was identified as a priority to service the Marquis Phase VIII subdivision and enable Saskatoon Land to meet its land sale servicing obligations.
3. The Administration requested three (3) quotes for primary water main valve repair work. Garnett Industries Ltd. (Garnett) was the lowest bidder and was awarded the purchase order.
4. During construction, several unforeseen conditions were encountered, which caused increases to the total project cost.

Strategic Goals

The recommendations support the Strategic Goals of Sustainable Growth as the work done under this purchase order will improve primary water main infrastructure.

The recommendations also support the Strategic Goal of Asset and Financial Sustainability as the work done under this purchase order will enable Saskatoon Land to comply with land sale servicing obligations.

Background

In April 2016, prior to starting construction of the roadways on Faithfull Avenue between Marquis Drive and 60th Street, the City completed an inspection of the underground valve chambers on the PWM. During that inspection, it was found that the valve

chambers, which are underground vaults, were full of water. The valve assemblies were corroded and non-operational.

Report

In order to expedite the repair work, the Administration requested three quotes from industry for the work. Garnett provided the lowest bid and was awarded the purchase order for the amount of \$55,965.00 (including GST). The work on this project included rehabilitation and upgrades to the underground valves that had been installed by the previous contractor. Before work commenced, the estimated cost was \$55,965, and the Administration knew there would be some variability in costs once excavations had been made and infrastructure became visible.

In May 2016, the contractor commenced the primary water main rehabilitation work. Once the valve chambers had been drained and construction commenced, it was found that the damage was much more extensive than originally anticipated. In addition to some problems that were due to poor installation, the water had severely damaged the valve infrastructure and also hydrocarbons of unknown origin were found in the chamber. Note that this PWM system had not been commissioned at the time, and no hydro-carbons entered the distribution system.

As work progressed, the Administration worked with Garnett as the scope of work changed, and all valves were repaired and updated as needed. The final cost of the work was \$154,855.

The main cause of this required work was the City's specification for valve infrastructure. Valves in chambers for new construction works have not historically been specified to sustain submerged conditions. Going forward, the Administration has upgraded its specifications to require valve infrastructure that can sustain extended submerged conditions.

Another factor was that the original contractor who installed the infrastructure declared bankruptcy, and as such could not be held responsible for the typical warranty. The bonds in place for warranty were effective for one year, and the flooded valves were discovered after the bond had expired. Even if this failure had been discovered with either an enforceable warranty or bond in effect, the majority of the costs incurred could not have been recovered from either the bonding company or the contractor. The majority of costs were associated with failed valve infrastructure due to submerged conditions.

Policy Implications

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

Financial Implications

Details of the estimated project cost that pertain to the Purchase Order #363928 are as follows:

Request to Exceed in Excess of 25% of Purchase Order #363928 — Marquis Phase VIII Primary Water Main Valves Repair Work

Anticipated Final Purchase Order Cost	\$154,855.99
Original Purchase Order Cost	\$ 55,965.00
Cost over the Original Purchase Order	<u>\$ 98,890.99</u>

The Administration requires City Council approval to exceed 25% of the purchase order value.

There is sufficient funding available in Capital Project #1435-07 to cover the increased costs of this contract. This cost is fully funded by the PWM Reserve, a reserve funded by development levies. No mill-rate funding is affected.

The Administration performed cost recovery analysis to determine the cost that the City could have recovered if the original contractor had not filed for bankruptcy. The estimated maximum the City may have recovered from the original contractor is approximately \$35,500.00 of actual PO cost incurred.

Environmental Implications

Activities associated with the project’s rehabilitation work included environmental testing and remediation to address hydrocarbons found in the primary water main valve chamber. This work eliminated the potential for adverse public health implications relating specifically to the hydrocarbons encountered.

Other Considerations/Implications

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

Due Date for Follow-up and/or Project Completion

The project work is completed.

Public Notice

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

Report Approval

Written by: Jankit Patel, Project Engineer, Construction & Design
Reviewed by: Daryl Schmidt, Land Development Manager, Construction & Design
Reviewed by: Celene Anger, Director of Construction & Design
Approved by: Jeff Jorgenson, General Manager, Transportation & Utilities

EUCS JP – Request to Exceed in Excess of 25% of Purchase Order #363928 – Marquis Phase VIII Primary Water Main Valves Repair Work