

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

Tuesday, January 10, 2017, 9:00 a.m. Council Chamber, City Hall Committee Members:

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

Pages

1. CALL TO ORDER

2. APPOINTMENT OF CHAIR AND VICE-CHAIR

City Council, at its Regular Business Meeting held on December 12, 2016 made the following appointments for 2017:

Standing Policy Committee on Environment, Utilities and Corporate Services

- Councillor T. Davies
- Councillor S. Gersher
- Councillor H. Gough
- Councillor D. Hill
- Councillor M. Loewen

The Committee is requested to appoint a Chair and Vice-Chair for 2017. Councillor Iwanchuk was appointed Chair for 2016.

Recommendation

That the Standing Policy Committee on Environment, Utilities and Corporate Services appoint a Chair and Vice-Chair for 2017.

3. CONFIRMATION OF AGENDA

Recommendation

That the agenda be confirmed as presented.

- 4. DECLARATION OF CONFLICT OF INTEREST
- 5. ADOPTION OF MINUTES

Recommendation

That the minutes of Regular Meeting of the Standing Policy Committee on Environment, Utilities and Corporate Services held on December 6, 2016, be adopted.

- 6. UNFINISHED BUSINESS
- 7. COMMUNICATIONS (requiring the direction of the Committee)
 - 7.1 Delegated Authority Matters
 - 7.2 Matters Requiring Direction
 - 7.3 Requests to Speak (new matters)

8. REPORTS FROM ADMINISTRATION

- 8.1 Delegated Authority Matters
- 8.2 Matters Requiring Direction
 - 8.2.1 Soils Handling Strategy Projects Results [CK. 7550-1 and CP. 5 14 7556-006]

Recommendation

That the Standing Policy Committee on Environment, Utilities and Corporate Services submit a report to City Council recommending:

- 1. That the information regarding the results of the soils handling strategy be received; and
- 2. That the City of Saskatoon join the Leadership in Brownfield Renewal (LiBRe) Program established by the Federation of Canadian Municipalities.

8.2.2 New Sewer Use Bylaw [CK. 7820-3 and CP. 0185-002] 15 - 42

Recommendation

That the Standing Policy Committee on Environment, Utilities and Corporate Services submit a report to City Council recommending:

That the City Solicitor's instructions to draft a new sewer use bylaw be amended based on the information contained in this report. 8.2.3 Truth and Reconciliation Commission of Canada Calls to Action - 43 - 60 January 2017 Update [CK. 5615-1 and CP. 0364-185]

Recommendation

That the report of the General Manager, Corporate Performance Department, dated January 10, 2017, be forwarded to City Council for information.

8.2.4 Saskatoon Winter City Strategy Update [CK. 5600-001 and CP. 5600-002]

Recommendation

That the report of the General Manager, Corporate Performance Department, dated January 10, 2017, be forwarded to City Council for information.

8.2.5 WWT - Lift Station Upgrades - Lorne Avenue Sanitary Sewer 61 - 64 Odour Remediation Strategy - Award of Engineering Services [CK. 7820-3 and WWT. 7990-110]

Recommendation

That the Standing Policy Committee on Environment, Utilities and Corporate Services submit a report to City Council recommending:

- That the proposal submitted by Stantec Consulting Ltd. for engineering services for the Lorne Avenue Sanitary Sewer Odour Remediation Strategy, for a total upset fee of \$163,288.65 (including GST), be accepted; and
- 2. That the City Solicitor be requested to prepare the appropriate agreement and that His Worship the Mayor and the City Clerk be authorized to execute the agreement under the Corporate Seal.

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8.2.6 Landfill Optimization - Award of Contract for Process Optimization and Training Services - Capital Project #2051-01 [CK. 7830-4 and PW. 4740-1]

Recommendation

That the Standing Policy Committee on Environment, Utilities and Corporate Services submit a report to City Council recommending:

- That the proposal submitted by Blue Ridge Services for the development and provision of best practice Standard Operating Procedures, and training for management and staff, at an approximate total upset fee of \$54,823 USD (\$73,564 CAD), be accepted; and
- 2. That the City Solicitor be requested to prepare the appropriate agreement and that His Worship the Mayor and the City Clerk be authorized to execute the agreement under the Corporate Seal.
- 9. MOTIONS (NOTICE PREVIOUSLY GIVEN)
- 10. GIVING NOTICE
- 11. URGENT BUSINESS
- 12. IN CAMERA SESSION (OPTIONAL)
- 13. ADJOURNMENT

Soils Handling Strategy Project Results

Recommendation

That the Standing Policy Committee on Environment, Utilities and Corporate Services submit a report to City Council recommending:

- 1. That the information regarding the results of the soils handling strategy be received; and
- 2. That the City of Saskatoon join the Leadership in Brownfield Renewal (LiBRe) Program established by the Federation of Canadian Municipalities

Topic and Purpose

The purpose of this report is to provide a summary of the outcomes of the soils handling strategy developed under Capital Project No. 2052 – Contaminated Soil Handling.

Report Highlights

- 1. Capital Project No. 2052 Contaminated Soil Handling was initiated following the success of beneficially reusing clean and impacted soil within the Circle Drive South project.
- 2. The soils handling strategy is a corporate framework for the management of impacted and clean soil from City of Saskatoon (City) construction sites.
- 3. The strategy was implemented in order to prepare the corporation for changing provincial environmental regulations (Environmental Code) that came into effect June 1, 2015.
- 4. The outcomes of the strategy led to the creation of a set of management tools that can be used when contaminated soils are discovered.
- 5. To continue with the successes of the soils handling strategy, the Administration recommends joining the Leadership in Brownfield Renewal (LiBRe) Program established by the Federation of Canadian Municipalities (FCM).

Strategic Goal

This report supports the strategic goal of Environmental Leadership, the four-year priority of diverting waste for re-use in other projects, and the ten-year strategy of addressing soil quality issues on City-owned properties.

Background

The Capital Project No. 2052 – Contaminated Soil Handling was used to fund the development of the soils handling strategy. The capital project was established as part of the 2013 budget based on the successful soil management approach used by the Circle Drive South project in 2011 and 2012. The intent of the funding was to enable environmentally responsible and reduced-cost handling of impacted soils found on City-owned or managed brownfield sites.

Report

Beneficial Re-use of Soils

The idea of viewing excess construction soils, both contaminated and clean, as a resource and not as a waste product was initially championed in the United Kingdom under the Contaminated Land: Applications in Real Environments (CLAIRE) program. Under the program, thousands of cubic metres of contaminated soil and clean fill have been beneficially reused within infrastructure projects, saving proponents millions of dollars and eliminating hundreds of tonnes of greenhouse gas emissions. In Canada, a similar approach to managing excess fill and has been implemented in Southern Ontario. High volumes of land and infrastructure development in the area led to high costs in soil disposal, and in some cases extensive unlawful dumping of fill causing environmental issues. Best management practices were developed provincially to encourage and facilitate the beneficial reuse of excess soils. An online soil service was also created to facilitate sustainable soil exchange between developers and contractors.

Beneficial soil reuse was implemented as part of the Circle Drive South project. Excess clean fill and contaminated soil from concurrent City brownfield projects (River Landing Phase II development, Saskatoon Police Headquarters, 25th Street Extension, 1810 Broadway Avenue tax arrears remediation) were safely reused and encapsulated within the new interchanges. This practice saved these City projects approximately \$2 million in disposal costs.

Corporate Framework

There were two stated objectives within the original capital budget report:

- 1. Outline the soil and water management concerns and opportunities at the Saskatoon Regional Waste Management Centre (Landfill).
 - The purpose of this objective was to develop a plan for the landfill so that contaminated soils could be beneficially reused as waste cover. This plan was to benefit City brownfield construction projects and landfill operations.
- 2. Screen and plan for the soil and water management at the largest three to five City construction sites.
 - The intent of this objective was to achieve the same sustainable outcomes in future City brownfield projects that were realized for those involved with the Circle Drive South project.

The implementation of the Contaminated Soil Handling capital project (described in Attachment 1) also provided the means of offering environmental advisory assistance, environmental project management assistance, education and training to civic project managers to facilitate the transfer of environmental knowledge, as well as increased environmental capacity within the corporation in preparation of regulation changes.

Environmental Regulation

The Provincial Environmental Management and Protection Act was recently updated with the proclamation of the Environmental Code regulations on June 1, 2015. The new code has put increased responsibility on municipalities to understand environmental regulations and manage soil appropriately. The soils handling strategy was implemented in order to inform City project managers, planners, and engineers of the new environmental requirements pertaining to contaminated soils.

Strategy Outcomes - Environmental Management Tools

Internal services and tools that have been created under the soils handling strategy project are described in Attachment 2 and include new procedures, training, mapping and information tools, and environmental advisory services.

Benefits of the Strategy

Implementation of the soils handling strategy has improved the management of risks and costs related to compliance with environmental regulation. Since 2011, implementation of the beneficial re-use concept has saved the City an estimated \$7.3 million in tipping fees by diverting contaminated soils from disposal in a landfill to other uses.

Other direct benefits of the strategy included:

- 18,000 tonnes of impacted soil from civic projects were beneficially reused at the landfill between the years of 2011 and 2015, which equated to \$1.7 million in disposal savings.
- Over 30 civic construction projects benefitted from project advisory and environmental review.
- 170 civic staff members participated in environmental and regulatory education sessions.

As a result of the successes of the soil handling strategy, other inter-divisional environmental protection projects have been initiated. Building off the implementation of the safe work procedures and the environmental protection plan, future environmental contractor guidelines will also be developed and implemented.

Next Steps

The presence of contaminated soil from historic land uses acts as a current impediment to growth and development inside the city. In order to achieve planned infill development and the objectives of the Growth Plan to Half a Million, there is merit to developing a Brownfield Renewal Strategy that addresses the impediments to development associated with contamination. Many cities across Canada face these same challenges and the Federation of Canadian Municipalities has created the Leadership in Brownfield Renewal (LiBRe) program as a national network of municipalities that are engaging in brownfield redevelopment strategies and incentive programs. The Administration recommends joining this network. As a member, the City of Saskatoon will have access to a professional network and knowledge resources that will further the achievements of Saskatoon's soils handling strategy, including preparing the City for success in applications to FCMs Green Municipal Funding. Membership to LiBRe is free as long as the members commit to:

- Submitting a letter confirming the City's commitment to join the program;
- Participating in online learning activities and one face-to-face workshop;

- Providing feedback to FCM on learning activities and materials; and,
- Working toward the completion of program deliverables, which includes a sevenstep framework that leads to the completion and implementation of a final brownfield renewal strategy.

The LiBRe Program framework outlining expected deliverables is outlined in Attachment 3. The successes of the project advisory service and the development of the impacted sites map will play a critical role in the development of a Brownfield Renewal Strategy for Saskatoon and enable and facilitate infill development to achieve the goals of the Growth Plan to Half a Million.

Public and/or Stakeholder Involvement

Several civic workgroups (shown in Attachment 1) have been consulted and engaged throughout the implementation and ongoing operation of the soil handling strategy.

Communication Plan

Highlights of the soils handling strategy are provided on the City's website. Additional results achieved as an outcome of the ongoing project advisory services and management tools will be reported each year within the Environmental Protection Annual Report submitted to the Standing Policy Committee on Environment, Utilities and Corporate Services each fall.

The savings identified in this report have been included in the annual Service, Savings and Sustainability report.

Financial Implications

Capital Project No. 2052 - Contaminated Soil Handling received \$250,000 in funding from the Landfill Reserve in 2013. These funds covered the costs of hiring external consulting expertise to develop a risk framework for the handling of contaminated soils and a concept for a soils facility (\$68,000), as well as to cover the costs for a Soils Engineer that developed and implemented the various management tools (\$182,000).

An external consultant was hired in order to take advantage of specialized expertise in the field of contaminated soil reuse, risk management and soil handling facility design. Due to the infrequent nature of this initial capital work, the City received a better value for the money spent as opposed to hiring a staff specialist.

Environmental Implications

Implementation of the strategy to date has saved the City an estimated 1000 tonnes of greenhouse gas emissions by reducing the number of trips to licenced landfill facilities that are located outside of the city.

Other Considerations/Implications

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

Public Notice

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

Attachments

- 1. Summary of activities under the Contaminated Soil Handling capital project
- 2. Strategy Outcomes Environmental Management Tools
- 3. Leadership in Brownfield Renewal (LiBRe) Program

Report Approval

 Written by: Miguel Gaudet, Project Engineer, Environmental and Corporate Initiatives
 Reviewed by: Twyla Yobb, Watershed Protection Manager, Environmental and Corporate Initiatives
 Brenda Wallace, Director of Environmental and Corporate Initiatives

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

Soils Handling Strategy Project Results.docx

Summary of Activities Under the Contaminated Soil Handling Capital Project

The Soils Handling Strategy project consisted of:

- Developing a procedure for accepting impacted soil at the Saskatoon Landfill to be reused as clean fill for waste cover while complying with the Permit to Operate. This was implemented to meet the objective of providing a resource to landfill operations while also providing a beneficial reuse solution to civic construction projects. A soil acceptance procedure was put in place that involved utilizing existing regulatory soil criteria and employing basic risk management practices to evaluate soil risks to the workers, the public, and the surrounding environment. As a result of this procedure, approximately 18,000 tonnes of impacted soil was beneficially reused at the landfill between the years of 2011 and 2015, which equated to \$1.7 million in disposal savings.
- 2. The continuation of the practice of soil reuse and providing specialized environmental project advisory services to City of Saskatoon (City) brownfield projects. This was done to improve the sustainability of project outcomes, ensure compliance with imminent regulatory change, and increase external environmental capacity. This work included environmental report reviews, proposal and RFP reviews, liaison with regulatory officials and environmental consultants, data and information interpretation, and regulation advisory services. Advisory services increased cooperation and trust between Divisions and increased confidence in environmental project delivery. Over 30 civic projects benefitted from the advisory services that were provided through the strategy.
- 3. The offering of a series of training and information sessions pertaining to contaminated sites and soils management, environmental site assessments, spill management, and the Environmental Code. The training sessions were conducted to raise awareness and spread environmental knowledge to civic staff, and to inform and help facilitate the transition to the new environmental regulations. Training sessions were carried out in 2013, 2014 and 2015 with a total of 170 participants.
- 4. The development of a city-wide soil reuse framework. With the objective of achieving the same sustainable outcomes in future City brownfield projects that were realized for those involved with the Circle Drive South project, the purpose of the framework was to develop a city-wide impacted soil placement plan that could be readily used to determine the reusability and site suitability of common contaminated soils that the City encounters. A consultant was hired to create the foundation of the framework. The study determined that the requested city-wide framework was not feasible with the available funds. The consultant deemed the project too complex and extensive given the number of variables that could impact the success of the framework; such as type of contaminant, soil types, depth of contamination, locations, land use, groundwater conditions, and ecological implications. With this conclusion, it was determined that a case-by-case approach would need to be carried out by employing basic risk

management principles (which were provided by the consultant). This case-bycase approach has been successful, and fewer large City-led brownfield projects are planned in the immediate future (making this approach less inefficient). One of the recommendations from the consultant and used by best-practice jurisdictions like the United Kingdom and southern Ontario, is to develop a soil handling/staging facility, or "soil hub site" to facilitate soil reuse. A conceptual design of such a facility was provided.

5. Management tool development. In order to achieve the most efficient and effective approach to contaminated soil management, civic staff involved in construction and operations were consulted in 2014. All groups indicated the soil handling strategy had value and they relied on the internal environmental expertise the strategy provided. The discussions that took place led to the refocus of the strategy to the development of tools and support services to civic construction and operational staff to help with regulatory compliance and facilitate beneficial soil reuse and risk management. Despite the refocus, the strategy maintained the original objectives of the capital project: soil reuse, limit waste, and regulatory compliance.

Several civic workgroups have been consulted and engaged throughout the implementation and ongoing operation of the soil handling strategy:

- Corporate Performance
 - Environmental & Corporate Initiatives
 - Corporate Initiatives
 - Energy & Sustainability
- Asset & Financial Management
 - Saskatoon Land
 - Land Development
 - Real Estate
- Community Services
 - Planning & Development
 - Development Review
 - Neighbourhood Planning
- Transportation & Utilities
 - Construction & Design
 - Engineering groups
 - Major Projects
 - Roadways & Operations
 - o Saskatoon Water
 - Engineering & Planning
 - Water & Waste Stream
 - Water & Sewer
 - Environmental Operations

Strategy Outcomes - Environmental Management Tools

Internal services and tools that have been created under the soils handling strategy project include:

- A centralized online soil-sharing platform on SharePoint to facilitate soil exchange between civic projects. This tool was implemented in southern Ontario with great success.
- Civic environmental advisory services were offered through the strategy. This service continues and has provided specialized knowledge and environmental documentation where required, quality assurance on environmental deliverables from external consultants, and has provided financial benefit by finding environmental efficiencies within projects.
- Education and training sessions for civic employees pertaining to environmental practices and regulations were developed and continue to be highly valued and attended. These training sessions are now offered through the Corporate Training calendar. The results of the training has led to fewer environmental issues as civic staff have become more proactive in environmental matters.
- A landfill soil acceptance procedure has been implemented. Increasing soil reuse at the landfill has provided a valuable sink for civic projects and private development. The landfill has also not purchased soil for waste cover since the commencement of the strategy.
- A concept plan and preliminary cost estimate was developed for a soil hub site as a place to bring untested impacted soil for interim storage, as well as a place to improve clean fill management at the landfill. The implementation of the soil hub site may be constructed in a future phase of Recovery Park.
- A comprehensive map illustrating contaminated and potentially contaminated properties was created as an impacted sites database that may be mapped by civic employees using the Geocortex mapping software. The map has been used by a number of civic divisions and saves approximately two hours of background research work each time potential contamination sources are reviewed.
- Interim safe work procedures were created to help operational groups deal with contaminated and potentially-contaminated soils that are encountered during routine construction or maintenance work. A more comprehensive document, an environmental protection plan, has also been developed to help guide civic operations through the required safe work procedure steps when soil contamination is encountered during construction work within city rights-of-way. This document works in conjunction with the impacted sites map and meets new requirements under the Environmental Code.

Leadership in Brownfield Renewal (LiBRe) Program

The Federation of Canadian Municipalities (FCM) has created a learning network aimed at helping participants take a leadership role in the development of brownfields (sites contaminated by past land uses).

The program is based on a seven-step framework with deliverables that include:

- 1. Commit to Action
 - a. Develop a document demonstrating commitment by City leadership to brownfield revitalization. This should take the form of a City Council resolution and may include the naming of a member of City Council as Champion for this initiative.
 - b. Assemble an interdisciplinary team (i.e. including planners, finance, legal, risk management, real estate, engineers, communications, etc.). Provide FCM with a list of members and the terms of reference for the team.
- 2. Understand the Landscape
 - a. Development of an inventory of brownfield sites.
 - b. Prioritize sites for redevelopment.
 - c. Create a catalogue of available assessments.
- 3. Build Partnerships and provide evidence of collaboration with local stakeholders.
- 4. Devise Strategy
 - a. Develop and document a Brownfield Renewal Strategy.
 - b. Develop supporting policies and programs to implement the Strategy.
- 5. Promote Programs and Opportunities
 - a. Prepare a communications plan to promote the Strategy and its policies and programs.
 - b. Implement communications including use of the City's website and promotional materials.
- 6. Manage Programs and Projects
 - a. Provide reports to FCM showing examples of programs developed and projects undertaken (these may be past, active or planned).
- 7. Evaluate, Improve, and Celebrate
 - a. Conduct periodic assessment of how brownfield redevelopment has impacted the community.
 - b. Provide annual reports.

Membership requirements include:

- Naming a brownfields coordinator;
- Naming a brownfields champion on City Council (optional);

- Describing current or upcoming (within a year) brownfield redevelopment initiatives; and
- Naming existing brownfield expertise that can be offered to the LiBRe community.

Membership does not have an associated fee. The network meets through five online learning activities and one face-to-face workshop each year.

New Sewer Use Bylaw

Recommendation

That the Standing Policy Committee on Environment, Utilities and Corporates Services submit a report to City Council recommending:

That the City Solicitor's instructions to draft a new sewer use bylaw be amended based on the information contained in this report.

Topic and Purpose

The baseline wastewater discharge inventory is now complete. This report presents the findings from the inventory that will be used to develop a more modern sewer use bylaw.

Report Highlights

- 1. The baseline wastewater discharge inventory is now complete with approximately 1,600 businesses evaluated, enabling the City of Saskatoon (City) to take a risk-based approach to the formulation of a new sewer use bylaw.
- 2. Instructions to the City Solicitor in 2011 to draft a new sewer use bylaw need to be amended to align the results of the inventory into the new sewer use bylaw.
- 3. Dischargers are seeking educational materials that provide clarity on what substances can and cannot enter the sanitary sewer.

Strategic Goals

A new sewer use bylaw is needed to manage risks related to compliance with environmental regulations; this supports the strategic goal of Environmental Leadership. The new bylaw also supports the strategic goal of Asset and Financial Sustainability by ensuring that our assets are well managed and maintained. The goal of a Culture of Continuous Improvement is addressed by modernizing the bylaw to reflect best practices and changing demands.

Background

Wastewater released to the sanitary sewer is currently regulated by the Sewage Works Bylaw (Bylaw No. 5115), which came into effect in 1971. The current bylaw is general in nature, open to interpretation, and does not have adequate provisions for enforcement.

At its meeting on March 7, 2011, City Council adopted a regulatory framework for a new sewer use bylaw and instructed the City Solicitor to prepare a new sewer use bylaw with an effective date of July 1, 2013. The bylaw was to be based on the foundational principle of source control through prescribed pre-treatment facilities. In March 2013, implementation of the bylaw was postponed in order to accommodate education programs with affected businesses.

On March 23, 2015, City Council received a report outlining a new approach to the new sewer use bylaw that focused on the outcome of wastewater effluent quality rather than mandating pre-treatment requirements as a mechanism to achieve this outcome. An update on the development of source control education programs was included.

At its meeting on December 14, 2015, City Council received an update to the baseline wastewater inventory.

Report

Baseline Wastewater Discharge Inventory

As of January 2016, the Administration completed a baseline inventory that implemented a risk-based approach to evaluate dischargers based on a list of specific substances with the potential to cause harm to persons, property or the environment. This included contacting and/or visiting approximately 1,600 businesses that may be affected by the implementation of a source control program. The findings of the baseline inventory were used to:

- Inform proposed amendments to the 2011 instructions to the City Solicitor;
- Formulate source control education programs to assist with compliance initiatives in the new bylaw.

Attachment 1 provides an explanation of the risk associated with wastewater discharges, the findings from the baseline inventory, and a summary of source control education programs.

Amendments to 2011 Instruction

The new bylaw will remain focused on a source control approach that is consistent with federal and provincial environmental regulation. Amendments to the 2011 instructions are intended to reflect a risk-based approach to the implementation of source control measures. Citizens will be provided with clear information on the desired behaviours for use of the municipal sanitary sewer system with the goal of realizing compliance through a cooperative approach whenever possible.

The key areas to be amended are as follows:

- Source Control;
- Limited and Prohibited Substances;
- Regulations;
- Licences and Permits;
- Monitoring, Inspection, and Sampling; and
- Enforcement.

A summary of the proposed amendments to the 2011 instruction is presented in Attachment 2.

Source Control Education Programs

Education for users of the sanitary sewer system is critical to the success of the source control management approach. In order to achieve compliance, there is a need for the City to clarify what substances can be released to the sewer and what behaviours are and are not acceptable. Education initiatives are intended to reduce the number of enforcement actions needed to achieve compliance.

Education materials to be distributed to users of the sanitary sewer system include frequently asked questions and information sheets for businesses that may release fats, oils and grease, dental amalgam, grit or synthetic oil.

The Administration will distribute education materials to the rest of participants in the baseline inventory in advance of implementing a new bylaw. Attachment 3 provides sample materials.

Cooperative Compliance

The desired approach to bylaw enforcement is one which is cooperative. Where cooperation is not achieved, the City will proceed to warnings and/or enforcement mechanisms.

Enforcement Pathway

Enforcement will be both complaint driven and inspection based. The frequency of site visits will vary depending on the level of risk generated by a particular business as determined through the baseline inventory. Suspected bylaw contraventions identified during site visits will be followed up by monitoring and sampling of wastewater effluent by an accredited laboratory to evaluate compliance with the list of limited and prohibited substances. Enforcement activities will reflect the level of risk posed by the quality of wastewater and are expected to escalate considering the frequency and seriousness of the violation. A summary of enforcement activities is presented in Attachment 4.

Limited and Prohibited Substances

The proposed list of limited and prohibited substances as outlined in Attachment 5 are required to ensure the City continues to meet provincial and federal regulations and deliver an effective service. The proposed chemical parameters and limits were established using the approach outlined in the model sewer use bylaw developed by the Canadian Council of the Ministers of the Environment and are in line with best practices for reducing contaminants in waste streams.

Options to the Recommendation

The City could choose not to implement a new sewer use bylaw and continue with the existing bylaw implemented in 1971. The Administration does not support this option as it will put the City at risk of financial and legal liabilities for inappropriate wastewater discharges as the current bylaw does not have adequate enforcement provisions.

The implementation of a new bylaw could adopt a phased approach to enforcement of limited substances whereby certain substances are regulated when the bylaw comes

into effect and others in subsequent years. This may allow the business sector more time to understand expectations and make operational adjustments.

Public and/or Stakeholder Involvement

Under the baseline wastewater discharge inventory, approximately 1,600 businesses were contacted, interviewed, and/or visited between 2014 and 2016 to collect information on their wastewater practices and evaluate the risk posed to the sanitary sewer system.

Communication Plan

Communication with business owners about source control and sewer use will include information on what can be discharged into the wastewater system, how they are expected to manage their discharge, and where to find more information. Proactive and effective communication will ensure businesses have sufficient time to make any required changes to their wastewater disposal practices. Communications may be through various channels, such as direct mail of educational materials, the City's website, news media, social media, articles to business associations, and the City Page. The Administration will be distributing education materials and the list of limited and prohibited substances to the business community as presented in Attachments 3 and 5, respectively.

Financial Implications

In 2011, the annual operating costs for administering the new sewer use bylaw and regulatory framework was expected to cost \$450,000 per year, would include 4.0 FTEs, and was to be funded from the water and wastewater utility. The completion of the baseline wastewater discharge inventory allowed the Administration to re-evaluate the anticipated annual costs and staffing needs based on actual risks to the sanitary sewer system.

It is now estimated that, when the new bylaw is implemented, annual operating costs will decrease to \$300,000 per year and the staffing requirements reduced to 3.0 FTEs. The annual operating cost is to be funded out of the wastewater utility and has been accommodated by recent rates set during the 2017 Business Plan and Budget deliberations.

Environmental Implications

Implementation of a new sewer use bylaw will help users of the sanitary sewer system understand which substances, when put down the drain, cannot be removed by our treatment process and end up directly in the environment. The source control program aims to reduce or eliminate these substances from entering the sanitary sewer and to ensure they are properly disposed of.

Other Considerations/Implications

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

Due Date for Follow-up and/or Project Completion

The Administration will bring forth a report with a new bylaw once it has been drafted. Source Control programs will be implemented throughout 2017, and a new draft bylaw will be brought forward later in the year for final approval by City Council. The Administration will bring forward a suggested effective date for the new bylaw when the new draft is complete.

Public Notice

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

Attachments

- 1. Findings of the Baseline Wastewater Discharge Inventory
- 2. Summary of Proposed Amendments to 2011 Instruction to Solicitors Office
- 3. Education Materials
- 4. Sewer Use Bylaw Enforcement
- 5. Draft List of Limited and Prohibited Substances

Report Approval

Written by: Matthew Hiltz, Project Engineer

Reviewed by:	Twyla Yobb, Watershed Protection Manager
-	Brenda Wallace, Director of Environmental and Corporate Initiatives
	Andrew Hildebrandt, Director of Community Standards
	Brad Rurak, Senior Plumbing Inspector
	Randy Grauer, General Manager, Community Services Department
Approved by:	Catherine Gryba, General Manager, Corporate Performance Department

New Sewer Use Bylaw.docx

Baseline Wastewater Discharge Inventory

Understanding how substances of concern enter the City of Saskatoon's (City) sanitary sewer system is the foundation for success of bylaw implementation. Substances of concern have been designated as limited (e.g. metals) or prohibited (e.g. radioactive waste). The Administration has developed an inventory of the businesses with the potential to release at least one of the substances listed and thus, may pose a risk to the sanitary sewer system; including:

- Potential to damage sewer collection system (pipes, lift stations, etc.);
- Disrupt or inhibit treatment operations at the wastewater treatment plant (WWTP);
- Risk to the City's compliance with obligations to the Province under its WWTP Permit to Operate (discharge to South Saskatchewan River);
- Reduction of biosolids quality (land disposal at North 40);
- Risk to worker health and safety (throughout the system).

The baseline wastewater discharge inventory was developed by conducting a review of all the businesses operating in Saskatoon as of January 2014. It was determined that approximately 1600 businesses had the potential to discharge a limited or prohibited substance. The Administration has contacted each of these businesses and conducted site visits where appropriate to evaluate how they are using the sanitary sewer system, their discharge practices, and the potential risk level. The findings from this evaluation were used to inform the development of source control programs, including education materials to communicate expectations and help businesses understand how to comply with the new bylaw.

The Administration has evaluated the risk presented by individual discharges based on the following framework.

Risk Level	Criteria
No Impact	Business discharges domestic waste only, will not be included in a specific source control program.
Low	Business has the potential to discharge limited or prohibited substances, but implements desired wastewater management practices.
Medium	 Business has the potential to discharge limited or prohibited substances and: Partially implements desired wastewater management practices; Discharges limited substances in manageable volumes;
High	Business is discharging a prohibited substance or a limited substance in excess volume.

Baseline Wastewater Discharge Inventory, Risk Assessment Framework

Findings of the Baseline Inventory

The baseline wastewater discharge inventory was completed in January 2016. Within the inventory, businesses were grouped according to the substances commonly associated with their business practices and the level of risk was assessed.

	. S			Risk Evalu	ation	
Source Control Education Program	Number of Businesses Reviewed	No Impact	Low Risk	Medium Risk	High Risk	Not Participating
Fats, Oil and Grease	564	56	338	27	25	118
Grit	301	0	208	40	10	43
Dental	65	0	59	2	0	4
Surcharge (Industrial Monitoring)	7	0	0	0	7	0
Limited and Prohibited Substances	102	0	79	7	2	14
No Impact	496	496	0	0	0	0
Total	1535	552	684	79	44	176

Baseline Inventory Findings

Of the businesses that participated in the baseline (1359) and received an evaluation:

- Approximately 90% will either not be impacted or will be or already are compliant with proposed amendments to the bylaw (i.e. low risk);
- 6% would likely come into compliance with minor operational adjustments (i.e. medium risk);
- 4% likely pose a high risk to the sanitary collection system or treatment operations and may require operational changes or discharger agreements (surcharge) in order to comply with the bylaw.

During the baseline inventory there were 176 businesses who declined to participate. It is expected that roughly 90% of these businesses will be either no impact or low risk given the nature of their business practices and the trend identified of those which were evaluated. These businesses will be given a higher priority for contact upon implementation of the new bylaw.

Summary of Source Control Education Programs

1. Limited and Prohibited Substances

This program will focus on businesses whose wastewater contains prohibited substances or is <u>above specified levels</u> for limited substances. Education for this program focuses on awareness to ensure users of the sanitary sewer system are aware of which substances can become problematic when discharged with wastewater.

The Limited and Prohibited Substances Program is the umbrella for the source control education programs. Although all users are expected to discharge in accordance with the list of limited and prohibited substances, it was identified that many of these substances can be reduced or prevented from entering the sanitary sewer system through routine maintenance of pre-treatment facilities required by *The Saskatchewan Plumbing Regulations*. Education materials have been developed to assist with proper maintenance of interceptors and separators to ensure adequate wastewater quality. Regulations contained in the bylaw allow for enforcement of these requirements.

a) Fats, Oils, and Grease (FOG) Program

The Saskatchewan Plumbing Regulations requires the installation of grease interceptors where a plumbing fixture discharges sewage that includes FOG and is located in a public kitchen, in a restaurant or in a care or detention occupancy. The most effective means of ensuring FOG is kept out of the sanitary sewer system is routine inspection and maintenance of grease traps.

The FOG Program will educate businesses with grease interceptors on proper inspection and maintenance to prevent excess FOG from entering the sanitary sewer system.

b) Grit and Oil/Water Program

The Saskatchewan Plumbing Regulations require an approved interceptor to be installed in all buildings equipped with vehicle access doors and other places designated by the local authority that have floor drains and are connected to a communal sewage works. Such interceptors are commonly found in equipment and vehicle wash operations, automotive repair operations, carpet cleaning operations, and other such industries that may discharge sand, grit, petroleum products or similar materials.

The Grit and Oil/Water Program will educate businesses with grit interceptors and/or oil/water separators on proper inspection and maintenance to ensure substances of concern are removed or reduced from sanitary wastewater.

c) Dental Amalgam Program

In 2001, the Canadian Council of Ministers of the Environment released the *Canada-Wide Standard on Mercury for Dental Amalgam Waste* in an effort to reduce waterborne emissions of mercury. As of January 1st, 2008, *The Dental Disciplines Act – Bylaws (2010)* requires members of the College of Dental Surgeons of Saskatchewan to have a functioning International Standards Organization (ISO) approved amalgam separator installed.

The Dental Amalgam Program will educate businesses with amalgam separators on proper inspection and maintenance to prevent mercury-containing amalgam waste from entering the sanitary sewer system.

2. Surcharge Program

The Surcharge Program is an existing program under Bylaw 5115 that levies a surcharge on industries that discharge high volumes of wastewater with excess concentrations of treatable limited substances. The surcharge revenue is intended to recover the added costs of transporting and treating the high strength wastewater. This program will continue under the new bylaw for businesses discharging excess amounts of biochemical oxygen demand, total suspended solids, total phosphorous, and oil and grease.

3. Additional Programs

There are additional users of the sanitary sewer system whose wastewater may pose a risk to persons, property or the environment but could not be contacted directly through the baseline discharge inventory. The following programs will address such industries:

- Septic Dump Program a septic dump is a location where recreational vehicles are allowed to empty their sewage waste into the sanitary sewer system. The City will work with owners of these sites to ensure that only appropriate wastewater is released.
- Mobile Food Vendor Program applications for mobile vendors are submitted to this program for review. Applicants are asked to submit a discharge management plan for wastewater that may be produced by their operation to ensure it is disposed of in an appropriate manner.
- Trucked Liquid Waste (TLW) Program the TLW program will authorize liquid waste haulers to dispose of hauled liquid waste at City approved locations.
- Special Discharge Program Businesses that wish to discharge a limited or prohibited substance to the sanitary sewer system for a limited period of time can apply to this program for a discharge permit.

Summary of Proposed Amendments Comparison Between 2011 Instructions and New Approach

2011 Instruction	New Approach Comparison With 2011 Instruction		
 Source Control (Compliance Focus) Preventing or reducing inappropriate substances from entering the sanitary system at the source by: Specifying requirements for pretreatment facilities including type and size of treatment equipment (i.e. prescribed plumbing fixtures); Equipment maintenance frequency, monitoring and record keeping; Regulating effluent quality (limiting and prohibiting substances of concern). 	 Eliminate specific requirements for size and type of pre-treatment facilities; Keep equipment maintenance frequency, monitoring and record keeping; Keep regulating effluent quality (limiting and prohibiting substances of concern). 		
 Limited and Prohibited Substances Updating limitations and prohibitions on the type and amount of substances that can be discharged into the sanitary sewer system. 	• Amend the list of limited substances by expanding it to align with the recommendations in the CCME Model Sewer Use Bylaw and the parameters present on the wastewater treatment plant permit to operate.		
 Regulations Prescribed regulations which apply the same rules to all dischargers within a grouping. These regulations would apply to the following industry groups: Food Sector Operations; Equipment and Vehicle Wash Operations; Fermentation Operations; Carpet Cleaning Operations; Dental Operations; Dry Cleaning Operations; Automotive Repair Operations; Photographic Imaging Operations. 	 Amend: Food Sector Operations; Dental Operations. Amend regulations to create a uniform "Grit and Oil/Water Program" comprised of: Equipment and Vehicle Wash Operations; Automotive repair operations; Carpet Cleaners. Amend regulations to create restrictions in a limited and prohibited substances program for: Fermentation Operations; Dry Cleaning Operations; 		

Summary of Proposed Amendments Comparison Between 2011 Instructions and New Approach

2011 Instruction	New Approach Comparison With 2011		
	Photographic Imaging Operations.		
 Permits and Licences Temporary Licence – granted to a regulated business that is not fully compliant by the regulation implementation date. Permits – applied to higher-risk wastewater system users on a case-by-case basis. Permits would specify conditions that dischargers must meet including sampling, monitoring, and reporting. Special Use Permit – issued to a user that is, may potentially, or proposing to discharge a limited or prohibited substance into the sanitary sewer system. Sewer Surcharge Permit – issued to 	 Photographic Imaging Operations. Amend use of Temporary Licence – At the City's discretion, a temporary licence could be issued to a business upon the discovery of a bylaw contravention to allow time to achieve compliance prior to moving to higher levels of enforcement or to extend the timeline of a permit or order to remedy. Amend use of Special Use Permits – envisioned to include two sub-categories: Authorization Permit – issued to users proposing to discharge a limited or prohibited substance for limited term periods; Management Permit – issued to users who continually discharge in excess of specified limits. This permit serves as 		
 business that discharge high strength wastewater and are regulated under the sewer surcharge program. High Volume Discharge Permit – issued to any user that is, may potentially, or proposing non-domestic wastewater with a volume that exceeds 10 cubic metres per day, or 300 cubic metres per month. 	 a mechanism for the City to monitor wastewater quality as the user moves as close to compliance as can reasonably be expected. Keep Sewer Surcharge Permit. Amend High Volume Discharge Permit – limited to dischargers of unpurchased water. 		
 Trucked Liquid Waste Hauler Permit issued to any hauler responsible for the collection and transportation of waste from a site, other than human sewage, to be discharged at a City disposal facility. Haulers are required to submit manifests with all loads and the users required to sign a declaration confirming the nature of the waste and its compliance with effluent standards. 	 Amend Trucked Liquid Waste Hauler Permit – is envisioned to include two sub- categories: Septage Hauler Permit – outline conditions for general use of City disposal facilities. No requirement for manifests or declaration forms. Industrial Hauler Permit – as described in 2011 instruction. Eliminate Pre-Treatment Facility Permit 		
Pre-Treatment Facility Permit – issued to regulated businesses that	 no longer required as regulations do not prescribe type and size of treatment 		

Summary of Proposed Amendments Comparison Between 2011 Instructions and New Approach

Comparison between 2011 instructions and New Approach					
2011 Instruction	New Approach Comparison With 2011 Instruction				
 can demonstrate the ability to comply with effluent quality standards even though their equipment doesn't comply with the regulations. Permit and Licence Fees – the following blanket fees were applied to all permit types. Annual permit fee - \$1,000 (prorated monthly for short term/one time use) Permit application fee - \$500 Permit Amendment fee - \$250 Temporary License - \$1,000 (prorated monthly) 	 facilities, and now focus solely on the quality of the discharge. Amend Permit and License Fees – amend fee structure to reflect permit type. 				
 Monitoring, Inspection, and Sampling Monitoring, inspection, and sampling would be required to follow up on the conditions of some regulations and permits. 	 Amend use of Monitoring, inspection, and sampling to: Monitoring, inspections and sampling would occur as part of the continuance monitoring to follow up on the baseline inventory in order to evaluate presence of limited and/or prohibited substances in wastewater effluent; and Follow-up on the conditions of some regulations and permits. 				
 Enforcement As the intention would be to focus on assisting in compliance of the bylaw, the following compliance are proposed: Pre-Enforcement Education; Inspection reports; Warnings Enforcement Orders; Charges; Liability for damages; Disconnection of utility services. 	 Keep all proposed pre-enforcement and enforcement methods. 				

Education Materials



Fats, oils and grease (FOG) that go down the drain can create unpleasant odours, clog pipes, and can lead to costly sewer back-ups in your business and in the community.

WHAT YOU NEED TO KNOW ABOUT GREASE TRAPS

#1: Use a grease Interceptor (grease trap),

The Saskatchewan Plumbing Regulations require food service establishments to use a grease interceptor to trap and separate FOG from wastewater before it goes down the drain

#2: Develop a cleaning schedule,

Regular cleaning and maintenance of your grease trap is the best way to protect your business and our community from costly sewer backups. Remember, your grease trap should never be more than 25% full (combined height of FOC and food solids), so you need to establish a cleaning routine that works for your kitchen.

#3: Keep a grease trap maintenance record.

Every time you clean your grease trap, log it on the City's Grease Trap Maintenance Record form—available on the City's website, Saskatoon.ca. Don't forget-you must keep copies of your maintenance log for two (2) years as proof of cleaning.

Use the form to track your grease trap maintenance history and make sure to keep a copy of it.

Remember: how often your grease trap needs cleaning depends on the amount of FOG your kitchen generates. Some commercial and institutional kitchens clean their grease trap multiple times a week; others do it every few weeks. The guide is no more than 25% full—that's about 2 inches of FOG in the grease trap.



2-INCH RULE

As a general rule, two inches is the maximum thickness of FOG that should be in the grease trap for it to work properly. Follow these steps to measure the FOG in your grease trap:

Step 7: Use a turkey baster to break through the fat layer at the top of the grease trap. If the fat layer is thick and solidified, clean the trap immediately. If the fat layer breaks up easily, and the baster is in liquid, proceed to Step 2.

Step 2: Take a sample of the liquid with the baster about 1 inch into the liquid. If the sample contains obvious FOG, then insert the baster 2 inches into the liquid. If that sample still contains FOG, insert the baster 2 ½ inches into the liquid. If by the third try you do not have mostly water in the baster, your grease trap requires cleaning.

Follow this process regularly to find out how long it takes your grease trap to reach a FOG thickness of 2 inches. This will help you determine how often it should be cleaned.



MORE INFORMATION ABOUT GREASE TRAPS

Do not use additives to move FOG through the grease trap.

The Canadian Standards Association (CAN/CSA B481 Series-12, Grease Interceptors) states that additives such as chemicals or enzymes should not be used to facilitate the movement of FOG through a grease trap

Maintain and clean your grease trap regularly.

Check for signs of deterioration. The grease trap should be free of cracks and the lid should be tightfitting. Repair any damage and replace missing parts immediately.

Dewatered food solids and FOG can be disposed of at a licensed disposal facility, such as the Saskatoon Landfill.

If you clean out your grease trap yourself, make sure to follow all safety requirements and use personal safety equipment. You can also hire third party services to clean your interceptor for you. Just make sure to attach a copy of the bill to your maintenance record and keep it for two (2) years.

Follow these simple steps to clean your grease trap:

- Gather containers to transfer grease and food solids into during cleaning.
- Carefully remove the grease trap lid.
- Scrape off the grease layer.
- Bail out the water and remove the food solids from the bottom.
- Scrape grease from the sides, lid and baffles.
 Check the inlet and outlet
- ports to ensure they are clean and clear.
- Re-Install the seals and replace any that are brittle or cracked.

SIZE YOUR GREASE TRAP CORRECTLY.

Your grease trap must be large enough to separate and capture fats, oils and grease until they can be disposed of. A licensed plumber can determine the most appropriate size of grease trap for your kitchen by measuring the volume of water that will run through it.

Before Installing your grease trap, always consult a licensed plumber.

CLEAR THE FOG TO REDUCE CLEANING TIME

- Wipe fats, oils and grease (FOG) from cooking equipment into a container using a paper towel before washing or rinsing.
 Scape leftover food and FOG
- from dishes before washing. This includes solids like coffee grounds, tea leaves, etc.
- Keep's strainer in the sink to prevent solids from washing down the drain.
- Use paper towels to absorb spilled oils.
- Display "Clear the FOG" posters prominently to remind employees to carry out routine inspections and maintenance.
- Collect waste oil from pots, pans and fryers and store it for recycling.
- Do not put hot water from cooking or cleaning down a drain that is connected to a grease trap.
- Dispose of food waste by composting, commercial recycling and/or with solid waste.

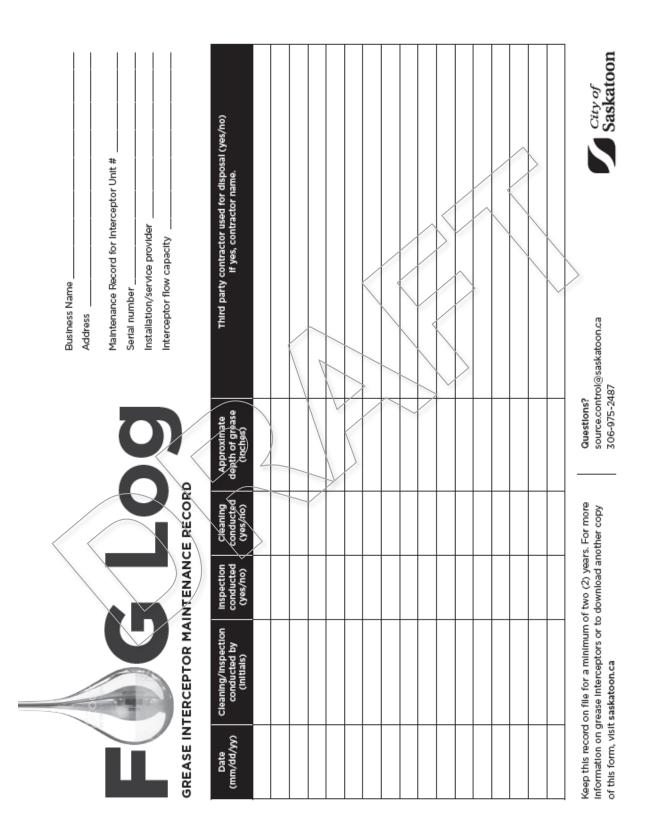
Questions about your grease interceptor?

Visit Saskatoon.ca, email source.control@saskatoon.ca or call 306-975-2487



Jan 2017

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Saskatoon

Intercept

GRIT + OIL

before they damage infrastructure

WHAT YOU NEED TO KNOW ABOUT GRIT INTERCEPTORS AND OIL/WATER SEPARATORS

Commercial wastewater from car washes and auto repair shops contains silt, sand (grit), and oll. Nasty stuff that, if allowed to escape down the drain, can corrode underground pipes, harm City workers, and cause costly damage to Saskatoon's sewer system.

The City of Saskatoon and Saskatchewan Plumbing Regulations require all commercial and industrial businesses with overhead vehicle access and floor draining to have grit and/or oil, and water separators installed.

Grit Interceptors usually consist of multiple chambers of compartments. Grit and other solids settle in these chambers as the wastewater passes through. The remaining wastewater dontinues on into the sewer system where it goes through the Wastewater Treatment Plant before being returned to the South Saskatchewan River.

Oil water Separator Wastewater containing oil eriters a tank from a drain and travels through a set of filters or rises to the surface of a holding tank, and then cleaner wastewater continues through the sewer system.

y GRIT INTERCEPTOR

HOW GRIT

As the diagram below shows, grit interceptors usually consist of multiple chambers or compartments.

Crit and other solids settle in these chambers as the wastewater passes through.

The remaining wastewater goes into the City's sewer system and carried to the Wastewater Treatment Plant before being returned to the South Saskatchewan River. This process helps to ensure the water is safe for people living downstream and for the environment.

(This diagram is for educational purposes only. It is not intended to indicate a design standard.).

City of Saskatoon, Corporate Performance, Environmental & Corporate Initiatives Page 4 of 11



INSPECTING AND CLEANING YOUR INTERCEPTOR/SEPARATOR

How often you need to inspect and clean your interceptor/ separator depends on the size of the unit and how much grit and oil your business collects.

- Grit Interceptor Should be no more than 75% full from the base to the outlet.
- Oll/Water Separator Should have no more than 5% floating oil and grease from the base to liquid level.

Interceptor/Separator cleaning tips:

Remember that grit and solids settle at the bottom of the interceptor (they don't float at the top).

Before Installing a GRIT Interceptor or an Oll/Water Separator, always consult a licensed plumber.

- You can check the level of grit in the chamber using a broom handle or other long object.
- Ensure the interceptor is cleaned out before the solids approach the interceptor outlet.
- Measure the amount of floating grease and oil in your separator with a clear tube. Dip the tube into the separator and put your thumb or hand over the opening and withdrawing the tube (think a drinking straw in a glass of milk).



KEEP A GRIT AND OIL INTERCEPTOR MAINTENANCE RECORD

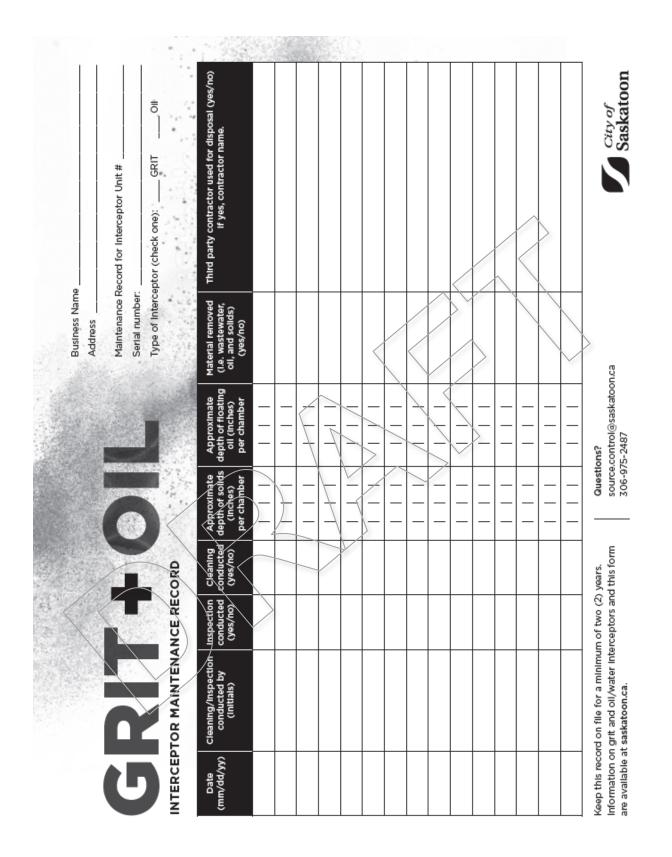
Every time you clean your interceptor, log it on the City's Grit & Oil Interceptor Maintenance Record form available on the City's website, Saskatoon.ca. In place of this form, other records with the same information will be accepted by the City. Don't forget--you must keep the maintenance record for a minimum of two (2) years as proof of cleaning.

Questions About Your Grit Interceptor or Oil/Water Separator?

Visit Saskatoon.ca, email source.control@saskatoon.ca or call 306-975-2487



Jan 2017

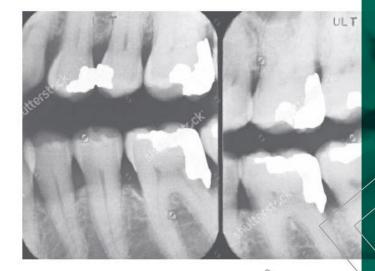




Dental amalgam contains elemental metals like mercury, silver, tin, and copper. If these materials get into the sewer system, they can damage the City's Wastewater Treatment Plant and harm the environment. That is why it is critical that these materials are properly collected and prevented from going down the drain. The Dental Disciplines Act—Bylaws (2010) requires members of the College of Dental Surgeons of Saskatchewan to have a functioning International Standards Organization (ISO) approved amalgam separator installed.

City of Saskatoon

City of Saskatoon, Corporate Performance, Environmental & Corporate Initiatives Page 7 of 11



How to keep dental amalgam out of the sewer system:

- A dental amalgam separator is the best way to capture amalgam and prevent it from entering the sewer system. Separators remove solid amalgam and allow clean wastewater to go down the drain. The captured amalgam can then be either recycled or disposed of property.
- Use an ISO Standard amaigam separator (ISO M143:2008—Dentistry— Amaigam Separators)

iSta

Clean and maintain your amalgam separator:

- Amaigam separators must be installed and maintained in accordance with manufacturer's instructions and specifications, and should be replaced a minimum of once per year.
- Proper maintenance of these fixtures is essential to ensure that they function as they should.
- Keep an Inspection and maintenance record for the amalgam separator and keep it on file for a minimum of two (2) years as proof of cieaning. The City's Dental Amalgam Separator Maintenance Record form is available on the City's website, Saskatoon.ca.

 Keep amalgam out of sinks that are not connected to an amalgam separator and never rinse amalgam waste down the drain.

- Clean or replace chair-side traps on a regular schedule and properly dispose of amalgam waste.
- Clean vacuum pump filters regularly, according to the manufacturer's recommendations.

Questions about your amaigam separator?

Visit Saskatoon.ca, email source.control@saskatoon.ca or call 306-975-2487



Jan 2017



Why is a new Sewer Use Bylaw needed?

Sewer Use Bylaw 5115 was created in 1971 and does not address current environmental standards. The new Bylaw will implement source control measures and allow the City to better regulate what businesses may discharge into the sanitary sewer system.

What are the benefits of the new bylaw?

The new bylaw will help protect sanitary sewer system infrastructure and public and private property from damage related to inappropriate discharges, protect City employees from exposure to harmful wastes, and reduce the risk of upsetting the waste treatment process and inadvertently releasing harmful substances into the environment within the final products of the Wastewater Treatment Plant.

Is the sanitary sewer system not built to withstand these contaminants?

The City protects and maintains water quality and public health by effectively treating typical wastewater collected from the City's sanitary sewer system. However, even the most advanced collection and treatment system cannot entirely deal with all types of inappropriate discharges, especially those that are toxic or corrosive.

Why are these discharges so harmful?

Some discharges could be flammable, corrosive, reactive or highly toxic which can cause corrosion and damage to pipes and pumps and upset wastewater treatment processes. Some discharges could even result in fires or explosions. Fat, oil, and grease discharges can build up in the sewer line and create blockages that lead to overflows into businesses, and homes. Large amount of grits and sand in the sanitary system can also cause damage to infrastructure.

Who is impacted by the new bylaw?

The majority of discharges that represent a risk to the City are created by the industrial, commercial, institutional (ICI) sector (i.e. businesses).

When will the new bylaw take effect? What if a business doesn't make improvements by the time the bylaw takes effect?

A date has not yet been determined but will be established to ensure there is a period of one year to implement Source Control Education Program materials. Businesses are expected to make improvements by the time the bylaw takes effect. Where a business hasn't made improvements, the City will take a cooperative approach to bylaw enforcement. Where cooperation is not achieved, the City will proceed to warnings and/or enforcement mechanisms.

How will the City ensure businesses know what to do?

A number of Source Control Education Programs are being developed to provide instruction on how businesses can improve the quality of their discharge. Communication will be through a variety of channels:

Direct Mail:

• Businesses affected by Source Control and the Sewer Use Bylaw will each be mailed informational letters with updates on the status of the Sewer use Bylaw as it pertains to their business, as well as an Information Sheet. They will be directed to the City's website or to email/phone the Project Manager for more information.

Web pages:

• Everything about Source Control and the Sewer use Bylaw will reside on Saskatoon.ca/sewer. Positional messaging will be featured upfront, backed by robust content addressing anticipated informational needs, links to relevant content on the City's website and PDFs of the Information Sheets.

News media:

• Program milestones will build opportunities to engage the media in the program. Tactics include annual reporting, including environmental and financial implications.

What types of discharges will be governed by the rules of the new bylaw?

The new bylaw will include a list of limits and prohibited substances that indicates what type of discharges will not be acceptable. The Source Control Programs will target businesses that discharge these substances.

Are residents impacted by the new Sewer Use Bylaw?

Residential discharges typically consist of domestic waste and the sanitary sewer system is designed to handle these types of waste. All dischargers are expected to comply with the bylaw and the City does intend to create an education program for residents.

What are the benefits of using Source Control Programs?

Having Source Control Programs in place will help eliminate discharges/contaminants from residential, institutional, industrial and commercial businesses at the source before they enter the sanitary sewer system. The programs will outline procedures to manage discharges into the sanitary sewer system for the benefit of the environment ultimately receiving the discharge and to affordably manage the sewage works over the long-term. Bylaw provisions will allow enforcement of these procedures or requirements.

Sewer Use Bylaw Enforcement

Triggers for Enforcement

The Environmental Protection Officers (EPOs) are the front line of bylaw enforcement for discharges into the sanitary sewer system. There are two pathways to which an EPO may be made aware of potential non-compliance. First, upon implementation of the bylaw, the EPOs will conduct periodic site visits of industrial, commercial, and institutional (ICI) users of the sanitary sewer system. The frequency of the site visits is driven by risk of non-compliance with the bylaw – the greater the risk, the more frequent the site visits (risk as defined in Attachment 1). The intent of the site visit is to evaluate discharge practices, much the same as the baseline wastewater discharge inventory. This process continues in perpetuity and the low risk dischargers receive some degree of periodic contact by the EPOs to ensure compliance is maintained.

The second avenue that an EPO may be made aware of a potential non-compliance event is through complaints. A complaint may be brought to the EPO either by another operating group who has made a discovery in the collection system, experienced a process disruption at the treatment plant or by a private citizen who has witnessed a non-compliance activity. When a complaint is brought forth, an investigation will commence to determine the source of the activity.

Ultimately, users of the sanitary sewer system are expected to:

- Ensure their wastewater discharge is consistent with the list of limited and prohibited substances;
- Keep inspection and maintenance records for pre-treatment facilities required by National Plumbing and Building Codes and the Provincial Regulations made thereunder, for a period of no less than two years;
- Adhere to the General Use provisions listed in the bylaw (i.e. preventing damage to or improper use of the sanitary sewer system).

Enforcement Approach

The criteria used to determine enforcement response is guided through a fair, predictable, and consistent manner. When a business has been determined to be out of compliance with the Bylaw, the nature of the incident will be assessed to determine the appropriate response. Enforcement actions are directed toward ensuring bylaw compliance within a timely fashion while minimizing the risk of repeat violations.

Consideration must be given to each violation in light of the nature of the discharge (i.e. parameter), current circumstance of City operations, and the user's cooperation in working toward compliance. When evaluating a violation, the following guiding principles should be considered.

- Magnitude of the violation;
- Duration of the violation;
- Impact or potential impact of the violation;
- Compliance history; and
- Good faith (i.e. willingness to cooperate with enforcement activities).

Enforcement tools will be coupled with educational opportunities where appropriate.

Enforcement Tools

An order is an enforcement tool which directs users to undertake or cease specific actions to work towards bylaw compliance.

Prosecution is generally used when other enforcement measures have proven ineffective or to obtain a court order mandating corrective actions to ensure compliance with the Bylaw. Prosecutions are conducted at the discretion of the City Solicitor's Office. The result of a prosecution may include court ordered fines against the discharger and/or restitution for costs incurred by the City.

Additional enforcement mechanisms include revocation of a permit, particularly when the permit holder does not meet the conditions of the permit, and, as a last resort, disconnection from the utility.

Draft list of Limited and Prohibited Substances

A: Prohibited Substances (draft)

- Any paunch manure, pigs' hooves or toenails, bones, hog bristles, hides or parts of hides, animal or fish fat or flesh, horse, cattle, sheep or swine manure, poultry entrails, heads, feet, feather, and eggshells, fleshings and hair resulting from tanning operations;
- Any water or waste containing a toxic or poisonous substance, or a waste which, when combined with another waste may cause toxic or poisonous substances to be liberated;
- Any water having two or more separate liquid layers;
- Any noxious or malodorous substance capable of creating a public nuisance;
- Ashes, cinders, sand stone or any other solid or viscous substance which may impair the operations and maintenance of the sanitary sewer system;
- Biomedical waste, pathological waste, or waste pharmaceuticals;
- Food waste other than properly shredded food waste discharged from a residential garbage disposal unit, unless otherwise approved in writing by the City;
- Gasoline, naphtha, fuel oil or other ignitable, flammable or explosive matter;
- Trucked liquid waste, except where authorized by the City;
- Liquid or vapour having a temperature greater than 65 degrees Celsius not resulting from a residential domestic appliance;
- Matter with corrosive or hazardous properties capable of damaging structures, equipment, treatment process, or people;
- PCBs (polychlorinated biphenyls);
- Pesticides including insecticides, herbicides, and fungicides, save and except chemicals contained in the stormwater emanating from trees or vegetation treated in accordance with Federal or Provincial legislation;
- Radioactive material except within such limits as are permitted by license issued by the Canadian Nuclear Safety Commission;
- Solid matter larger than 12.5 mm in any dimension;
- Water or waste having a pH lower than 6.0 or higher than 9.5;
- Stormwater into the sanitary sewer system; and
- Water or waste containing dyes or colouring materials that discolour effluent, with the exception of dyes used by the City for testing purposes.

B: Limited Substances (draft)

CONVENTIONAL SUBSTANCES

Substance	Concentration Limit (mg/L)
Biochemical Oxygen Demand	300
Chemical Oxygen Demand	600
Nitrogen, Total Kjeldahl	100
Oil and Grease – animal and vegetable	100
Oil and Grease – derived from petroleum	15
Phosphorous, Total	10
Total Suspended Solids	300

INORGANIC SUBSTANCES

Substance	Concentration Limit (mg/L)	
Aluminum, Total	50	
Antimony, Total	5.0	
Arsenic, Total	0.1	
Boron, Total	5.0	
Cadmium, Total	0.1	
Chromium, Total	4.0	
Cobalt, Total	5.0	
Copper, Total	2.0	
Iron, Total	10	
Lead, Total	0.1	
Manganese, Total	5.0	
Mercury, Total	0.01	
Molybdenum, Total	5.0	
Nickel, Total	2.0	
Selenium, Total	0.1	
Silver, Total	1.0	
Sulphate	1500	
Sulphide	1.0	
Tin, Total	5.0	
Titanium, Total	5.0	
Thallium, Total	0.5	
Vanadium, Total	5.0	
Zinc, Total	1.0	

ORGANIC SUBSTANCES

Substance	Concentration Limit (mg/L)	
Benzene	0.01	
Chloroform	0.05	
1,2-Dichlorobenzene	0.05	

1,4-Dichlorobenzene	0.05
Ethylbenzene	0.06
Methylene Chloride (dichloromethane)	0.09
Nonylphenols	0.02
Nonylphenol Ethoxylates	0.2
Polycyclic Aromatic Hydrocarbons (PAH)	0.05
Phenols, Total	0.1
1,1,2,2-Tetrachloroethane	0.06
Tetrachloroethylene (PERC)	0.06
Toluene	0.02
Trichloroethylene	0.054
Xylenes, Total	0.3

Truth and Reconciliation Commission of Canada Calls to Action – January 2017 Update

Recommendation

That the report of the General Manager, Corporate Performance Department, dated January 10, 2017, be forwarded to City Council for information.

Topic and Purpose

The following report summarizes 2016 progress made by the City of Saskatoon (City) in responding to the Truth and Reconciliation Commission (TRC) Calls to Action and identifies 2017 initiatives.

Report Highlights

- 1. The City has made significant progress in 2016 on initiatives that respond to the TRC "Calls to Action". The Conference Board of Canada's 2016 report on reconciliation highlighted the City of Saskatoon's municipal leadership in declaring the Year of Reconciliation and its response to the Calls to Action.
- 2. In 2016, 445 senior City employees attended a Leadership Forum with an Aboriginal Awareness focus, making personal commitments to reconciliation. Approximately 1,000 City and Saskatoon Police Service (SPS) employees participated in Aboriginal cultural awareness training.
- 3. The City will continue to work collaboratively with the TRC Committee and community partners to implement the Calls to Action in 2017.

Strategic Goals

The report supports the long-term strategy under our "Quality of Life" strategic goal to strengthen relations with local Aboriginal organizations, and the 4-year priority to develop partnerships and programs with Aboriginal organizations that will assist in enhancing economic, employment, and training opportunities.

Background

On June 22, 2015, City Council directed the Administration to identify responses and financial implications of the TRC Calls to Action and declared July 1, 2015 to June 30, 2016 the Year of Reconciliation. The Administration was directed to work with the Office of the Treaty Commissioner (OTC), and other community groups, leaders, and institutions in Saskatchewan to promote reconciliation.

The Administration reported on October 19, 2015, and was directed to provide regular updates outlining successes, as well as outstanding items, along with an update of events recognizing the Year of Reconciliation in Saskatoon. The Administration was also directed to report with a plan for increased professional development and training for employees, with a long-term target of 100 percent participation.

A progress report was brought to City Council on March 21, 2016, with a commitment to report back on the Action Plan for Reconciliation in fall 2016.

Report

<u>Highlights of the City's 2016 Progress in Responding to Calls to Action</u> Details of City activities to increase Aboriginal inclusion are in Attachment 1. Highlights of City activities include:

- Provided leadership for several community events that commemorated reconciliation (e.g. Rock your Roots, Walk for Reconciliation, National Aboriginal Day, Wicihitowin speaker series).
- Provided leadership for the Saskatoon Reconciliation Committee (SRC) which developed a learning kit for organizations, implemented a communication strategy (e.g. reconciliation brand, logo, flag, social media) and held flag raising ceremonies to increase public awareness.
- Partnered to produce a three-part conference series called 'Prosperity through Partnerships'
- About 1,000 City and SPS employees participated in various sessions on Aboriginal awareness and anti-racism.
- Honoured Aboriginal contributions through the City naming process: Round Prairie Library (Stonebridge branch) in honor of the Métis; Dr. Freda Ahenakew Library (20th Street branch), Louis Riel Industrial Park, and several Aboriginal names were added to the "Master Names List".
- The City supported the Saskatchewan World Indigenous Festival for the Arts and World Indigenous Business Forum (WIBF) and held in August. Nearly 1,000 Aboriginal leaders and entrepreneurs from throughout the world attended WIBF, with an estimated economic impact of \$3 million for Saskatoon.
- New collaborative art installed on 33rd Street and Avenue E expresses hopes and wishes for reconciliation.
- The City renegotiated its land lease agreement with Wanuskewin Heritage Park in support of the Park's desire to pursue UNESCO World Heritage Site status.

The City's 2017 Planned Initiatives in Responding to Calls to Action

- Continue collaborating with the community on the Saskatoon Community Aboriginal Action Plan.
- Work with the Saskatoon Reconciliation "Sensemaking Sub-Committee" to identify metrics and explore methods of evaluation.
- Complete the review of three to five City policies and SPS documents with an Aboriginal inclusion lens.
- Complete the assessment of making Aboriginal Awareness training mandatory and options for delivering the training.
- Launch "I am the Bridge" public anti-racism education campaign.
- Implement the Canada 150 Crossing Path's Reconciliation Art Project with input from the community.
- Unveil the Missing and Murdered Aboriginal Women commemorative sculpture in front of the SPS building.

- Bring forward a report to City Council recommending that the City enter into discussions with the Saskatoon Tribal Council to study the feasibility of a hydropower station at the weir.
- Continue to support the Saskatoon Aboriginal Employment Partnership in implementing its communication plan, completing the next phase of the employee supply/demand report, and holding an industry forum.
- Implement corporate procurement policies and procedures to focus on cost effectiveness, environmental responsibility, sustainability and inclusion of Aboriginal suppliers and contractors.

Public and/or Stakeholder Involvement

The City has been working closely with Aboriginal and other community organizations to develop the Saskatoon Aboriginal Community Action Plan.

Communication Plan

A variety of tools will be used to continue to communicate the City's commitment to reconciliation and promote various programs and projects. The communication tools will include, but may not be limited to, webpage updates, news releases, media events, social media, advertisements, and stakeholder meetings.

Financial Implications

Initiatives to respond to the TRC Calls to Action are within the existing budget, and leverage additional resources from other orders of government, community partners and the private sector.

Other Considerations/Implications

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

Due Date for Follow-up and/or Project Completion

A progress report will be brought to City Council on 2017 progress on the Action Plan for Reconciliation in collaboration with OTC and other partners in winter 2017/2018.

Public Notice

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

Attachment

1. City of Saskatoon Response to the TRC Calls to Action: December 2016 Update.

Report Approval

Written by:	Gilles Dorval and Angela Schmidt, Aboriginal Relations
Reviewed by:	Catherine Gryba, General Manager, Corporate Performance
-	Department
Approved by:	Catherine Gryba, General Manager, Corporate Performance Department

TRC Calls to Action - January 2017 Update.docx

Attachment 1

City of Saskatoon's Response to the Truth and Reconciliation Commission's Calls to Action and Responsibilities December 2016 Update			
Summary of Applicable Recomi	Summary of Applicable Recommendations Directed to Municipal Governments or All Levels of Government		
PLANNED INITIATIVES - 2016	PROGRESS- 2016	PLANNED INITIATIVES - 2017	
Action #3: Fully implement Jordan's Principle.	PROGRESS- 2016	PLANNED INITIATIVES - 2017	
The City of Saskatoon (City) will continue to implement a "child first" principle in providing City programs and services. For those residents that face cost as a barrier, the Leisure Access Program for Low-Income Residents provides free access to civic centre drop-in programs, outdoor pools and one free registered program. Applications are available to individuals at all of our civic centres. Applications are also available to agencies that work with low-income clients.	* The Leisure Access program continued to support access to City of Saskatoon leisure centres for low-income residents including Aboriginal residents.	*Continue to implement a "child first" principle in providing City programs and services including discounted leisure centre access and transit passes for all low-income residents.	
Action #40: Create Aboriginal-specific victim services			
The Saskatoon Police Service (SPS) currently has Aboriginal program components for victim services.	*SPS employs two full-time Indigenous Resource Officers - a Missing Persons Liaison who works with all families and with the Missing and Murdered Indigenous Women action groups. *Saskatoon Police also has the Indigenous Relations Consultant who works in the Cultural Resources Unit who created partnerships with various agencies within the community, some of which include victim advocacy groups and missing and murdered indigenous women and men.	*Continue current Aboriginal components of victim services.	

PLANNED INITIATIVES - 2016	PROGRESS- 2016	PLANNED INITIATIVES - 2017	
	e Rights of Indigenous Peoples supporting Aboriginal rights	s to culture, employment, health,	
education and other issues, and facilitate their full participation in all matters that concern them.			
Continue to implement recommendations from the Kitaskinaw Report. Kitaskinaw was a collaborative effort led by the City, Saskatoon Tribal Council (STC), the United Way of Saskatoon and Area, and Gabriel Dumont Institute (GDI). *The Saskatoon Collaborative Funders Partnership is continuing the work on outcomes and evaluations and providing educational sessions to community-based organizations including Aboriginal organizations. *The Wicihitowin Speaker Series, a partnership with the Saskatoon Health Region, United Way, and Aboriginal Friendship Centres of Saskatchewan, was initiated. The series targets community-based organizations that provide services to Aboriginal citizens in Saskatoon. All representatives from City of Saskatoon Boards and Commission are invited to attend.	 *The Saskatoon Collaborative Funders Partnership held a workshop on the value of an evaluation framework for community organizations. *In 2016, Wicihitowin Speaker Series included 1) John Lagimodiere on Aboriginal awareness with a focus on the impacts of residential school (250 participants in two sessions); 2) Eugene Arcand presented on Indian residential school survivors stories (180 participants); and 3) Blanket exercise, an experiential learning exercise simulating the historical relationship between the Crown and First Nations based on the Indian Act (40 participants). 	*Continue to participate with the Saskatoon Collaborative Funders Partnership. *Continue to implement recommendations from the Kitaskinaw Report. *Continue the Wichitowin Speaker Series in 2017.	
*The SPS has a Chief's Elders Advisory Committee which is comprised of First Nations and Métis Elders and Cultural Advisors which was implemented in the 1990s. *SPS has an Advisory Committee called SPACOD Saskatoon Police Advisory Committee on Diversity which is made up of numerous community, social justice, diversity, and numerous other advocates.	*The Planning and Development Division continues to dialogue with First Nations partners on a variety of planning initiatives including Regional Plan (completion in April 2017), Urban Reserve creation and Compatible Land Use Agreements (two urban properties-Yellow Quill First Nation and Thunderchild First Nation; and Moosomin First Nation who has land located in the jointly managed Corman Park - Saskatoon Planning District), urban and rural land holdings development, engagement for the Saskatoon Office Policy Review, and servicing/roadway discussions held jointly with Transportation and Utilities Department, etc. *The Police Chief's Elders Advisory committee met four times to advise the Chief and Executive members on topics and issues relevant to the Aboriginal community. *SPACOD met quarterly to discusses ways in which the Police can serve the connections that the SPS has with the community and it allows its members to voice opinions and recommendations that the SPS be inclusive and treat all fairly.	*Complete the Regional Plan and continue to involve First Nations partners in planning and land use. *Continue quarterly meetings with the SPS Chief's Elders Advisory Committee and SPACOD.	

PLANNED INITIATIVES - 2016	PROGRESS- 2016	PLANNED INITIATIVES - 2017
Action #47: Reform laws and policies based on European sovereignty over Indigenous peoples and lands.		
Employ an analyst to complete a review of City of Saskatoon policies, programs, and services with an Aboriginal lens. Review and update the Cultural Diversity and Race Relations Policy .	*A Johnson Shoyama graduate intern started working on the review of policies. Research on equity and inclusion/ policy of other municipalities is complete as well as criteria to prioritize policies for review. A Partnership with Community Legal Assistance Services for Saskatoon Inner City (CLASSIC) was formed to provide legal framework and jurisprudence to equity and inclusion lens being developed. *The community notification process for Urban Reserve creation was updated to reflect the intent of the Calls to Action. The process continues to include an awareness and education component but also celebrates the achievement and provides more flexibility. *SPS has also begun to undertake a policy review to ensure inclusion and systemic discrimination are avoided in their documents. In 2011, an Aboriginal Relations Consultant was hired to review policies within the SPS and to help develop a Strategic Plan regarding Aboriginal relations and engagement. In 2016, an additional person was hired on permanently, now	*The graduate intern will continue to work with CLASSIC applying the equity and inclusion lens developed by the Systemic Initiatives Project. The goal is to have three to five policies reviewed and presented with recommendations/ alternatives by June 2017. *SPS will continue their policy review to avoid discrimination.
	called the Indigenous Relations Consultant. *Aboriginal representation on City of Saskatoon boards, committees, and commissions was actively sought (e.g. Municipal Planning Commission, Saskatoon Public Art Advisory Committee, Board of Police Commissioners, Library Board).	*Review the application and recruitment process for City boards, committees, and commissions to further increase Aboriginal participation.

PLANNED INITIATIVES - 2016	PROGRESS- 2016	PLANNED INITIATIVES - 2017
PLANNED INITIATIVES - 2016	PROGRESS-2010	PLANNED INITIATIVES - 2017

Action #57: Educate public servants on the history of Aboriginal peoples, inter-cultural competency, conflict resolution, human rights, and anti-racism.			
*Continue promotion by Strategic and Business Planning Division including corporate-wide emails and communication to Division Directors about relevant corporate training opportunities: *Conversations for Aboriginal Inclusion includes the following TRC learning objectives: history of Aboriginal peoples, including the history and legacy of residential schools, Treaties and Aboriginal rights, Aboriginal-Crown relations. *Fundamentals of Cultural Competency Workshop includes intercultural competency, conflict resolution, human rights and anti-racism *Intercultural Problem Solving Strategies includes intercultural competency, conflict resolution, human rights, and anti-racism. *Resolving Conflicts Constructively includes conflict	 *A total of 104 employees participated in the following four Aboriginal workshops held in 2016: 1. Conversations for Aboriginal Inclusion (spring and fall sessions) 2. Fundamentals of Cultural Competency Workshop 3. Intercultural Problem Solving Strategies 4. Resolving Conflicts Constructively *SPS hosted two sets of four Elder's Teachings attended by 400 people. A positive outcome is that several community agencies now want to partner with SPS and the Elders to bring these teachings into the community. A local community college has already completed one set of four sessions. 	*Continue to offer and promote corporate training programs that contribute to the Call to Action to increase awareness of civic employees about Aboriginal culture. *Continue hosting the Elder's Teaching sessions.	
Implement anti-racism training sessions for civic staff.		toolkit will be delivered to civic staff with a focus to promote anti-racism among senior leadership.	

PLANNED INITIATIVES - 2016	PROGRESS- 2016	PLANNED INITIATIVES - 2017
	*Indigenous Communications Handbook - Under the guidance of the Aboriginal Relations Director and Regional Planning Section, a draft handbook is being developed for civic employees to create more awareness and understanding of cultural traditions and protocols, and learn tools and strategies to improve dialogue with First Nations. The draft handbook is being reviewed by the Office of the Treaty Commissioner (OTC) and Saskatchewan Indian Cultural Centre (SICC) for	*Publish the Indigenous Communications Handbook in early 2017.
Incorporate presentations on Aboriginal culture at regularly scheduled employee meetings by Aboriginal and community organizations (e.g. OTC, Saskatchewan Human Rights Commission (SHRC), etc.) Incorporate Aboriginal Awareness at the 2016 Fall Leadership Forum.	feedback on cultural content. *The 2016 Fall Leadership Forum attended by 445 senior managers and union executive included a one-hour presentation by John Lagimodiere on Aboriginal Cultural Awareness. All senior management were asked to make a personal commitment to reconciliation. *City Solicitor's Office staff participated in a retreat at Wanuskewin Heritage Park, which included treaties, land claims, residential schools, the TRC Calls to Action report, how First Nations and Métis cultures differ, and how First Nations' government and taxation laws generally work.	*Continue to incorporate presentations on Aboriginal culture in regularly scheduled meetings.
Report to Executive Committee with a plan for increased professional development and training for employees, with a long-term target of 100 percent participation.	*A mandatory half-day Aboriginal Awareness training outline	*Complete the assessment of making Aboriginal Awareness training mandatory and options for delivering the training.
Incorporate a section under professional development in the Individual Development Plan template to allow for self- directed diversity education including Aboriginal cultural awareness. Incorporate Aboriginal training in the Business Planning template.	*The revisions to the Individual Development Plan and Business Planning templates are underway.	*The new Individual Development Plan template and Business Planning templates are expected to be approved in 2017 for implementation.

PLANNED INITIATIVES - 2016	PROGRESS- 2016	PLANNED INITIATIVES - 2017
PLANNED INITIATIVES - 2016 Increase Aboriginal content for professional development coordinated by Strategic and Business Planning.	*Three City initiatives celebrated June National Aboriginal History Month: 1. Book Review: The Education of Augie Merasty, A Residential School Memoir: 17 staff took part in this book	PLANNED INITIATIVES - 2017 *Include another book with Aboriginal content for the 2017 Diversity Book Club and identify other professional development opportunities with Aboriginal content.
Work with City of Saskatoon Workplace Inclusion Champions and other internal groups and union executives to devise future plans based on how to respond to the calls to action in a collaborative way.	for a draw. *Added Reconciliation to agenda for regular meetings with Inclusion Champions and Union Executives in 2016.	*Continue regular meetings with Inclusion Champions and Union Executives in 2017.
Since the early 2000's, the SPS has hosted quarterly sweat lodge ceremonies utilizing SPS Elders where staff and community members are invited to attend.	*Sweat lodge ceremonies continue. *The Elders Advisory Committee has now expanded to include 16 Elders and Cultural Advisors. *Within the last five years, several Elders have passed away. The SPS Cultural Room was named to honor SPS's two Lead Elders. Previous to that, the Elders on the Advisory Committee were all awarded with special SPS badges.	*Explore having the Elders connected to Indigenous Youth and the Police in some fashion
Action #77: Work collaboratively with the National Centre for Truth and Reconciliation to identify and collect copies of all records relevant to the history and legacy of the residential school system, and to provide these to the National Centre for Truth and Reconciliation.		
Work with the City Archivist to identify any relevant material and forward these to the National Centre for Truth and Reconciliation.		*Continue to identify relevant material to forward to the National Centre for Truth and Reconciliation.

PLANNED INITIATIVES - 2016	PROGRESS- 2016	PLANNED INITIATIVES - 2017
Actions #87 and #88: Support the development and recognition of Aboriginal athletes.		
Evaluate the Aboriginal Lifeguard program Implement the Fitness Leader Certification Partnership with the U of S	*The Aboriginal Fitness Leader Certification preparatory	*Complete the evaluation of the Aboriginal Lifeguard Program.
• Support Aboriginal organizations in hosting major sports events, such as the North American Indigenous Games, in Saskatoon		
Summary of Recomm	nendations not Directed but Applicable to Municipal Govern	ments
PLANNED INITIATIVES - 2016	PROGRESS- 2016	PLANNED INITIATIVES - 2017
Actions #30 & #38: Eliminate over-representation of Ab		
Reduce recidivism through social enterprise opportunities for Aboriginal people to gain work experience as an alternative to crime, in public works activities.	*Meetings have been held with Str8Up and the Saskatoon Fire Department to discuss social enterprise opportunities for participants to gain work experience.	*Identify City opportunities to utilize the social enterprise model and hold an educational forum for interested community-based organizations.
	*2016/2017 was the third year of Saskatoon Police Cadets, which works with younger children to provide positive role models and activities. One program goal is prevention, in hopes that these young people will not be recruited into the gang lifestyle and will avoid being in conflict with the justice system. The SPS recognized that working with 12-18 year old vulnerable youth was already too late. Therefore, the Cadet program was offered to children as young as eight. Although it is a diverse group, the majority of the youth were First Nations and Métis. *The SPS Indigenous Recruiting officer works closely with SK Polytechnic Aboriginal Police Prep Program in an effort to identify potential candidates for recruitment. The SPS also awards two scholarships to students from this program. *The SPS provided two bursaries for the Saskatoon Indian and Métis Friendship Centre Aboriginal Graduation. This has been taking place for over 15 years. *The SPS has recently implemented a paid summer student position for qualified Indigenous students.	

PLANNED INITIATIVES - 2016	PROGRESS- 2016	PLANNED INITIATIVES - 2017
Continue Aboriginal representation with the Saskatoon Board of Police Commissioners to provide an Aboriginal lens in governance.	*The current Chair of the Saskatoon Board of Police Commissioners is an Aboriginal woman from a Saskatchewan First Nation community.	*Continue Aboriginal representation with the Saskatoon Board of Police Commissioners to provide an Aboriginal lens in governance.
The Saskatoon Housing Initiatives Partnership (SHIP) and the United Way are producing a new Community Action Plan to Address Homelessness for Saskatoon. The governance structure - a broad community-based organization to lead and "own" the Plan - is being determined. The City has committed to enter into a contract with a service in the community to ensure that the Plan's recommendations are carried out.	*The Community Action Plan was released to the public on National Housing Day, November 22, 2016.	*The Community Action Plan and a funding request to implement the deliverables will be considered by City Council in 2017.
The City partners with STC, Potash Corp. and other community organizations in the Urban Aboriginal Leadership program which provides healthy alternatives for youth to participate in the community and economy. Continue participation in the "Atoske" and "Wanska" (Lift Up) youth leadership programs.	 * One session of the Wanska youth development program was delivered in the winter of 2016. * Three two-week Atoske youth leadership programs were delivered in the summer of 2016. SPS participated in the Atoske program via tours and presentations to participants. * Three Atoske alumni events were held in 2016 (Business Etiquette, Anti-Racism, and Self-Branding), with 10 alumni receiving certificates of completion. 	*Two Alumni Leadership Development workshops will be held in January 2017. *Continue to delivery the Atoske youth development program in Summer 2017.
Action #53: Collaborate to develop and implement an ac reconciliation efforts	ction plan, promote public dialogue for reconciliation, and n	nonitor and report annually on
The City is partnering with United Way, Saskatoon Tribal Council, Central Urban Métis Federation Inc. (CUMFI), Saskatoon Health Region (SHR), SREDA, Aboriginal Friendship Centres of Saskatchewan (AFCS), and other community partners in the Saskatoon Community Action Partnership (SACAP). The organizations are working with "urban matters" a social enterprise organization and expect to have the following by the end of March 2016: *Vision and Goals *Community Action Plan Framework *Summary of State of the Environment *Community Priorities *Framework Document	*The Saskatoon Reconciliation Committee (SRC) now includes 42 partners which are working together towards a high quality of life for Aboriginal peoples in the Saskatoon region. *Funding was received from INAC to develop a Saskatoon Aboriginal Community Action Plan. A work plan has been developed.	*Continue to partner with the SRC to create positive change in areas of economic and social inclusion of Indigenous peoples. *Create and pilot test an 'evaluation tool' to determine change in attitudes, understandings, and relationships in response to cultural competency development initiatives and events, including Reconciliation Saskatoon efforts. *Continue to work with the "Sensemaking Sub-Committee to identify metrics and explore methods of evaluation.

PLANNED INITIATIVES - 2016	PROGRESS- 2016	PLANNED INITIATIVES - 2017
The City and its partners have a Communication Framework with the theme: "Reconciliation Begins with Me". Examples of components include *Development of Reconciliation brand * Shared development of OTC website focusing on Reconciliation *Collection of videos of What Reconciliation means *Materials for organizations to use with their employees *News releases and media scrums *Radio and print ads *Social media *Stakeholder meetings	 *The City participated in the Saskatoon Reconciliation Committee (SRC) with the following achievements: 1) Developed a reconciliation brand, logo, and flag 2) Held three flag raising ceremonies (City, SaskPolytechnic, and SHR) 3) Linked the City website to the OTC website on Reconciliation which included selfies on "What Reconciliation Means to Me" 4) Social media clinic for Reconciliation members 5) Social media with each event related to reconciliation held by the SRC's 42 partners (e.g. Rock your Roots event). 6) Developed a learning kit for organizations to use to educate their employees about TRC Calls to Action and Reconciliation. 7) Held monthly stakeholder meetings. 	*The SRC will continue to promote events, (e.g. Red Shirt Day, Rock your Roots), educational opportunities, and commitments to reconciliation by the SRC partners.
	*SPS is included in the partnership committee and implemented various initiatives as part of reconciliation. E.G. Elder's Teachings, Missing and Murdered Indigenous Women Memorial (to be erected and unveiled in 2017). The SPS sits on committees for the National Aboriginal Day planning and the Federation of Sovereign Indigenous Nations annual powwow committee.	*The SPS is undertaking planning for reconciliation and call to action activities for 2017. Tentative plans include partnerships with external agencies to bring the Elder's Teachings to youth and their mentors within the child welfare system; and to present to a National Conference in Halifax in 2017 re the Reconciliation Saskatoon initiative partnership.
Report on the City's annual progress in contributing to increasing the well-being and inclusion of Aboriginal people living in Saskatoon, including progress on the Kitsakinaw Report and Urban Aboriginal Community Gathering recommendations.	One of the Kitsakinaw recommendations was to Implement a public anti-racism campaign. *An anti-racism poster series was launched at the SaskTel Soccer Centre in conjunction with the Saskatoon World Cup soccer tournament, and expanded to the Hank Ruys soccer centre. *The "I am the Bridge" public education campaign collected videos using one-story web-based collection platform to develop a video montage of anti-racism education messages that will be used to create citizen-to-citizen public education.	*The "I am the Bridge" public education campaign is set to launch in March 2017, corresponding with Race Relations Month.

PLANNED INITIATIVES - 2016	PROGRESS- 2016	PLANNED INITIATIVES - 2017
Follow up on the feedback from the YXE youth speaks event to address racism through developing an implementation strategy. Encourage youth involvement/ voting in the municipal election	 * A follow-up YXE Speaks youth forum was held in December and a community steering committee is working on the strategy. * Two voter information sessions were held for community- based organizations working with Aboriginal and other community members *The Conference Board of Canada reported on proceedings in 	* Complete the YXE youth strategy
hosted by the Conference Board of Canada to discuss best practices to advance reconciliation. The Conference Board will prepare a report on the proceedings.	"We. Us. Them - A Reconciling Narrative." which included action advice for individuals, businesses, post-secondary institutions, and provincial and federal governments. The report highlighted the City of Saskatoon's municipal leadership in declaring the Year of Reconciliation and response to the Calls to Action.	
	nake information available on Aboriginal peoples and reside	
Continue to update the collection of books and films related to Aboriginal history, culture, and residential schools, and offer related programming.	*The SPL initiated Read for Reconciliation for the community, encouraging reading of books with Aboriginal content. (see www.saskatoonlibrary.ca/reconciliation)	*Continue to update the collection of books and films related to Aboriginal history, culture, and residential schools, and offer related programming.
Action # 79: Participate in a strategy to commemorate A		
Educate the Aboriginal community-at-large on City naming processes and continue to identify opportunities for Aboriginal names for City streets, parks, etc. A report was presented to Council in December 2015 detailing how Planning and Development will work to improve the diversity of names on the Names Master List. Further collaborations will be made with identified community and educational organizations, including presentations at public events.	 *A targeted awareness campaign, including presentations and printed brochures, was directed at individuals and Aboriginal organizations, to enhance the profile of the Naming Policy and encourage diversity of submissions. *The composition of the Naming Advisory Committee changed to include a Diversity Inclusion Consultant. *Louis Riel Industrial Park was named. *The new Stonebridge library branch was named Round Prairie in honor of the Métis. The Library on 20th Street Branch was named Dr. Freda Ahenakew branch. *Names recommended for addition to the Names Master List include Amisk (Cree word for beaver), Gallagher (after Joseph Charles Gallagher- notable James Smith First Nation member and athlete), and Misaskwatomina (Cree word for Saskatoon Berry) 	*Review naming policies in 2017. *Continue to incorporate consultations with Aboriginal people on the naming of more Saskatoon infrastructure. *Involve the Saskatoon Reconciliation Committee (SRC) in the process to engage the community, the Elders, and Indian Residential School Survivors to recommend a name to City Council for the new North Commuter Parkway Bridge in honor of Aboriginal peoples' contribution to Saskatoon.
Continue to provide organizational support for the Saskatchewan World Indigenous Festival for the Arts (SWIFFA).	*The City provided a Profile Saskatoon Grant in 2015 and ongoing in-kind support in 2016 for the SWIFFA which was held in Saskatoon on August 24 and 25, 2016.	

PLANNED INITIATIVES - 2016	PROGRESS- 2016	PLANNED INITIATIVES - 2017
Continue to partner to ensure that public art in Saskatoon recognizes Aboriginal peoples' history and contributions. The City is applying for funding from Heritage Canada for public art that would recognize Aboriginal Peoples' history and contributions to Saskatoon. A memorial piece for Missing and Murdered Aboriginal Women (MMAW) is planned.	*The City - STC partnership for a Canada 150 Crossing Path's Reconciliation Commemorative Art Project was approved with a \$250,000 grant from Canadian Heritage to STC. The City's contribution is cash and in-kind support. An RFQ- call for artists was issued in December. *A desired outcome of Saskatoon's Placemaker Program is to celebrate and represent the First Nations and Métis communities, and to create opportunities for Indigenous community groups. Placemaker projects awarded in 2016 include "Untitled" and "pawcikewin isi kakahcipitaman - Catch YOUR Dream - T'a ghanaste huschu" by artists Heike Fink and Joseph Naytowhow. This collaborative art, installed on 33rd Street and Avenue E, crafted during free public workshops by the Saskatoon community, expresses hopes and wishes for reconciliation.	*Work on Canada 150 Crossing Path's Reconciliation Art Project. Artist/artist team to be selected. First round of community engagement to begin. *Acquisition of the "Land of Berries" neon- light art installation. *Unveil the MMAW commemorative sculpture in front of the SPS building in spring 2017. *Install 'Untitled' by indigenous artist and sculptor Darren Gowan, a carved stone bison sculpture, roughly 2 metres high, on Central Avenue and 112th Street in early 2017. *Explore opportunities for acquiring public art commissioned by First Nations artists or focused on a First Nations theme as part of City of Saskatoon permanent collection.
Aboriginal contributions to Saskatoon's development are acknowledged through the raising of the Treaty Six flag and		Continue with SPS involvement in Aboriginal awareness campaigns *Continue raising the Treaty 6 flag and Métis Nation of Saskatchewan flag in Civic
Métis Nation of Saskatchewan flag which fly in Civic Square on a permanent basis.		Square.
The City contributes annual funding for the operation of Wanuskewin Heritage Park and participates in its board governance.	*The City renegotiated its land lease agreement with Wanuskewin Heritage Park in support of the Park's desire to pursue UNESCO World Heritage Site status. The lease provision allows for an expanded land base that helps the park to meet UNESCO's buffer criteria, helping to protect and maintain the ecology and biodiversity of the site. It will also allow Wanuskewin to return a small herd of plains bison to the native prairie habitat.	*Continue to provide funding and support of Wanuskewin.

PLANNED INITIATIVES - 2016	PROGRESS- 2016	PLANNED INITIATIVES - 2017
Saskatoon dignitaries are encouraged to utilize opening	*Recognition of Treaty 6 Territory and Homeland of the Métis	*Continue to encourage dignitaries and
remarks recognizing Aboriginal people, and developed in a	has been used at an increasing number of events by	emcees to recognize Treaty 6 Territory and
process led by the University of Saskatchewan Teaching,	dignitaries and emcees in 2016.	Homeland of the Métis in opening remarks
Learning, and Academic Resources Committee of Council:		at events.
As we gather here today, I would like to welcome you to		
Treaty 6 Territory and Homeland of the Métis. We pay our		
respects to the First Nations and Métis ancestors of this		
place and we reaffirm our relationship with one another.		
Action #92: Ensure Aboriginal peoples have access to j	l obs, training and education opportunities; and they benefit	from economic development.
Planning and Development is reviewing the Official	*A review of the Official Community Plan is underway and	*Initiate dialogue with First Nation rights-
Community Plan to enhance wording regarding voluntary	includes special emphasis on Aboriginal inclusion.	holders and stakeholders and bring forward
engagement with First Nations and Métis in the planning		Official Community Plan amendments that
process.		emphasize Aboriginal inclusion.
Partnership for Growth (P4G), in which the City is a partner,	*Collaboration continued between the Saskatoon North	*The next round of engagement on the
continues to engage with First Nations and provide	Partnership for Growth (P4G), of which the City of Saskatoon	Regional Plan will occur from December
		2016 to February 2017, using a similar
with specific First Nations is being undertaken in addition to	addressing First Nations' development plans. One-on-one	approach to the 2016 engagement. The
stakeholder and public engagement. * The Broader	meetings were held with First Nations, and First Nations were	Regional Plan is anticipated to be
Regional Committee (BRC), which is led by SREDA,	invited to all public events, to provide an update on the	completed by April 2017.
continues to engage with First Nations and encourage	Regional Plan project and obtain feedback. Aboriginal	
collaboration in the broader region. * Planning and	inclusion policies will be included in the Regional Plan.	*Identify potential opportunities for the City
Development continues to engage with First Nations and		to partner with First Nation Treaty Land
provide information relating to planning and land		Entitlement (TLE) landholders within
development considerations within the City and the region.		Saskatoon for land development.

PLANNED INITIATIVES - 2016	PROGRESS- 2016	PLANNED INITIATIVES - 2017
* Additional First Nation Community Profiles are being created for new First Nations land holdings within the City and the region. * The City is partnering with the Federation of Saskatchewan Indigenous Nations, Indigenous & Northern Affairs Canada, the Ministry of Government Relations, the City of Regina, and SREDA to produce a three-part conference series called 'Prosperity Through Partnerships', focusing on creating wealth through land claims.	*'The First Nation Community Profiles were all updated in 2016 to reflect updated governance and contact information. Two new Profiles, for Fishing Lake First Nation and Thunderchild First Nation, are in the process of being drafted. *'Prosperity Through Partnerships' Conference Series - the collaboration continues between the partnering agencies, and a new three part series of workshops will occur over winter 2016/2017. The first event took place in December 2016 in Saskatoon with approximately 120 participants.	*Engage First Nations in review and approval of two new First Nation Community Profiles. *Add new Profiles to City of Saskatoon website and SREDA website, and provide for First Nations use. *A scholarship fund has been created as a legacy to the 'Prosperity Through Partnerships' conference series. The funds are available to any Aboriginal student enrolled in the Regional and Urban Planning program at the University of Saskatchewan. *Two Prosperity through Partnership events are scheduled for January and March 2017
Continue work identified in the Diversity and Inclusion Action Plan and Aboriginal Employment Action Plan. Report progress to Council in 2016.	*The City partnered with the Saskatoon Tribal Council to provide work experience for a recent environmental engineering graduate. *Regional Planning in collaboration with the Director of Aboriginal Relations, hired a planning intern in partnership with the Saskatoon Tribal Council's Summer Employment Program. The work program for the intern included research for the Indigenous Communications Handbook.	*Investigate options for participating in the Export Aboriginal Recruitment program with Saskatchewan First Nations Natural Resource Centre of Excellence.
Phase Two of the Saskatoon Aboriginal Employment Partnership is underway with a new governance model. Key activities include *Community engagement with government, businesses, education and training institutions, service providers *Three forums with First Nation and Métis Economic Development Corporations *Networking forum to develop partnerships in the business community *Creation of a Community Action Plan with partners *Developing an evaluation framework with measures *Developing economic development toolkits for Aboriginal Economic Development Corporations *Showcasing Saskatoon's Progress	*SAEP partnered in the WIBF, the three "Prosperity through Partnership" conferences, and the Métis Economic Development Forum. *Partnered with the U of S to complete the "City of Bridges First Nations and Métis Economic Development in Saskatoon and Region" which highlighted best practices. *Finalized the SAEP logo.	*Finalize the establishment of the non-profit organization to administer the SAEP. *Develop and begin to implement a communication plan. *Develop the SAEP website. *Complete an Aboriginal employee supply/demand report. *Hold an Industry Forum to share results of reports and best practices.

PLANNED INITIATIVES - 2016	PROGRESS- 2016	PLANNED INITIATIVES - 2017
Explore opportunities for Aboriginal partnerships for clean energy production.	*Various partnership options for hydropower development were evaluated and the Saskatoon Tribal Counncil (STC) was identified as the best option. Basic interests were established for the City to enter into further discussions with STC. The partnership would enhance economic, employment and training opportunities for Aboriginal people.	*Bring forward a report to City Council recommending that the City enter into discussions with the STC for the purpose of studying the feasibility of constructing and operating a hydropower station at the Saskatoon Weir
Continue to provide organizational support for the World Indigenous Business Forum (WIBF) and report to Council on results of WIBF in Fall, 2016.	*In addition to the Profile Saskatoon Grant of \$150,000 provided in 2015, the City continued to provide in-kind support for the WIBF held August 23 to 25. Nearly one-thousand Aboriginal leaders and entrepreneurs from throughout the world attended, with an estimated economic impact of \$3 million for Saskatoon. *Hosted a 13 person Chile delegation of Indigenous community leaders, government officials, and business people.	*The Director of Aboriginal Relations will serve as the honorary WIBF Ambassador for the 2017 WIBF in Chile.
Create the Indigenous Recruiter position as a distinct position within the Cultural Resources Unit.	*In 2016, the SPS created the Indigenous Recruiter position within the Cultural Resources Unit. The Indigenous Recruiting Officer attends many locations within Saskatoon and the province. He offers mentorship through assisting with the recruitment process, including practice entrance exams.	*Continue to support the Indigenous Recruiter position.
The SPS has a paid summer student position in the Cultural Resources Unit. This program began several years ago as an extension to unpaid practicum placements.	*The summer student position in the Cultural Resources Unit allowed a candidate to explore policing as a career option and the SPS Human Resources section to evaluate the individual as a potential candidate for a full-time position.	*Continue the summer student position with the SPS Cultural Resources Unit.
Co-host a Career Fair with the Saskatoon Open Door Society.	*The SPS co-hosted, along with the Saskatoon Open Door Society, a volunteer Career Fair which was attended by various Indigenous people.	
	The City is undertaking transformational change in our approach to procurement. Corporate policies and procedures are being developed to ensure our procurement processes focus on cost effectiveness, environmental responsibility, sustainability and inclusion of Aboriginal suppliers and contractors.	The City will implement the new approach to procurement, focusing on cost effectiveness, environmental responsibility, sustainability, and inclusion of Aboriginal suppliers and contractors.

PLANNED INITIATIVES - 2016	PROGRESS- 2016	PLANNED INITIATIVES - 2017
Action #93: Provide inclusive information about Aboriginal peoples to newcomers		
Partner with Institute for Canadian Citizenship (ICC) and OTC to host a citizenship ceremony that includes a focus of First Nations and Métis peoples and their contributions. Ongoing work on the One Story and Moving Stories projects	one with the theme of Homeland of the Métis. The SPS hosted the Citizenship Ceremony in February 2016. • Partnered with the Office of the Treaty Commissioner to host two-day Building New Relationships workshops for people	 Host two more citizenship ceremonies (one with the SPS). Hold a Building New Relationship workshop. Implement Phase 3 of Moving Stories working with Newcomer and Aboriginal communities sharing stories.

WWT – Lift Station Upgrades – Lorne Avenue Sanitary Sewer Odour Remediation Strategy – 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 Stantec Consulting Ltd. for engineering services for the Lorne Avenue Sanitary Sewer Odour Remediation Strategy, for a total upset fee of \$163,288.65 (including GST), be accepted; and
- 2. That the City Solicitor be requested to prepare the appropriate agreement and that His Worship the Mayor and the City Clerk be authorized to execute the agreement under the Corporate Seal.

Topic and Purpose

The purpose of this report is to obtain City Council approval to award a proposal from Stantec Consulting Ltd. (Stantec), the highest rated respondent to the City's Request for Proposal (RFP), to conduct a study and develop a comprehensive remediation strategy for the odour producing effects in the sanitary sewer located along Lorne Avenue and Saskatchewan Crescent.

Report Highlights

- 1. Residents located along Lorne Avenue and Saskatchewan Crescent are able to detect nuisance odours associated with the nearby sanitary sewer collection system.
- 2. Some improvements to the Lorne Avenue sanitary sewer collection system have already been made.
- 3. Saskatoon Water issued an RFP to conduct a hydraulic and air management study to gain a greater understanding of the air and sewer dynamics to determine the cause of odour emissions and to develop cost-effective odour control solutions. The proposal submitted by Stantec was determined to be the most favourable to the City.

Strategic Goal

This report supports the Strategic Goal of Quality of Life, through responsible designs and by ensuring City sewer operations reduces effects on the surrounding neighbours by 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. The collection system is operated and maintained by the Water & Waste Stream division.

Odour emissions can be an unwelcome by-product of wastewater treatment and collection systems. Due to the combination of organic waste material and bacteria in the sewer, generation of odours are common, especially in large collection systems with extended detention times.

Report

Odour Status

Due to the development of Stonebridge and the Willows neighbourhoods, the rate of flow in the trunk sewer main along Lorne Avenue and Saskatchewan Crescent has significantly increased. Also, the detention time has increased as the collection system is more extensive and includes the Stonebridge Lift Station, Jasper Avenue Lift Station, and Rotary Park Lift Station. The combination of longer detention times and higher rate of flow has resulted in higher odour emissions.

Improvements to the System

The City has made improvements to the Lorne Avenue sanitary sewer collection system. Listed below are the actions the City has taken, to date, that were required to optimize and operate the sewage collection system and would also have had a positive impact on odour generating potential:

- Lorne Avenue sanitary sewer trunk improvements
- Optimization of pump times at Jasper Avenue Lift Station
- Rotary Park Lift Station wet well retrofitting
- Scheduled odour media replacement at Rotary Park Lift Station
- Smoke Testing
- Hydraulic models on current and expected flows

The following steps were taken specifically to reduce odour potential at these locations:

- Installation of bio blocks in the system
- Installation of charcoal manhole lids throughout the study area
- Pre-treatment applications at Jasper Avenue Lift Station
- Cleaning of both Jasper and Rotary Park Lift Station wet wells

Even with these steps taken, the odour emitting from this section of sanitary sewer trunk remains high at various times of the year and through a daily cycle, and the Administration believes this is currently the most severe location of sanitary sewage odour in Saskatoon other than the sewage treatment plant itself.

Request for Proposal

Understanding the air and sewer dynamics through a hydraulic and air management study is required when determining the cause of odour emissions and in developing cost-effective odour control solutions. In November 2016, an RFP was issued for professional services to conduct a study to compile historical information on the system, present a plan to directly identify the odour sources that are causing effects, investigate their causes, and then recommend options available to mitigate the odour emissions. The Administration does not currently have the expertise in this area or the specialized ventilation equipment and hydraulic modelling software required to effectively determine the most effective solutions.

The following three proposals were received and evaluated by Engineering Services staff and managers:

- Stantec Consulting Ltd., (Saskatoon, SK)
- Associated Engineering (Sask) Ltd., (Saskatoon, SK)
- Golder Associates Ltd., (Calgary, AB)

A systematic evaluation of the proposals resulted in the proposal from Stantec being selected as most favourable for the City.

Options to the Recommendation

The Administration could re-tender the work; however, this is not recommended as the proponent met all of the City's requirements and the cost is reasonable, considering the scope-of-work.

Public and/or Stakeholder Involvement

The Administration has been in regular contact with residents directly experiencing the odour effects in the area, keeping them informed and engaged.

Communication Plan

Residents will be notified with a notice in advance of any work or monitoring as they may expect to see staff in the area, and will need to plan for any necessary parking or road restrictions. The Administration will continue to keep stakeholders informed of the progress through email or letter updates.

Financial Implications

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

Consultant Labour	\$121,229.00
Laboratory Costs	14,000.00
Contingency	20,284.00
Total Proposal Price	\$155,513.00
GST (5%)	7,775.65
Total Upset Fee	\$163,288.65
GST Rebate	(7,775.65)
Net Cost to the City	<u>\$155,513.00</u>

There is sufficient funding in Capital Project #778 – Land Development – Trunk Sewers – Stonebridge and Capital Project #1243 – WWT – Lift Station Upgrades to fund this study.

Environmental Implications

The recommendations associated with this project, when implemented, are intended to result in a significant reduction to the levels of detectable odour adjacent to sanitary sewer operations at this location. A potential environmental implication associated with the recommendations of this report, is the improvement to quality of life associated with reductions in odours resulting from sanitary sewer operations.

Other Considerations/Implications

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

Due Date for Follow-up and/or Project Completion

A report summarizing the results of the study will be completed in October 2017. . Depending on the findings and the recommendations given, the consultant and the Administration will provide an updated remedial action 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 Optimization – Award of Contract for Process Optimization and Training Services–Capital Project #2051-01

Recommendation

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

- 1. That the proposal submitted by Blue Ridge Services for the development and provision of best practice Standard Operating Procedures, and training for management and staff, at an approximate total upset fee of \$54,823 USD (\$73,564 CAD), be accepted; and
- 2. That the City Solicitor be requested to prepare the appropriate agreement and that His Worship the Mayor and the City Clerk be authorized to execute the agreement under the Corporate Seal.

Topic and Purpose

The purpose of this report is to obtain City Council approval to award a proposal from Blue Ridge Services. The scope of work includes review of existing practices and infrastructure, development of Standard Operating Procedures for the City based on industry best practice and site conditions specific to the Saskatoon Regional Waste Management Centre (Landfill), and providing training to management and staff.

Report Highlights

- 1. Updated procedures and training will ensure that the Landfill equipment is operated safely and efficiently, and that the Landfill airspace is maximized in the long term.
- 2. Administration issued a Request for Proposal (RFP) to provide Landfill Equipment Operator Training to improve and update operational practices related to waste handling at the Landfill.

Strategic Goal

This report supports the Environmental Leadership strategies to eliminate the need for a new landfill and to implement energy efficient practices in City operations. This report also supports the long term Continuous Improvement strategies of providing ongoing skills training to staff and increasing productivity by being more efficient in the way we do business.

Background

In 2011, City Council approved the Landfill Optimization Project which identified capital and operational improvements required to extend the life of the landfill. The plan included aspects such as optimizing available airspace by maximizing compaction, reclaiming inefficiently filled areas, and achieving steeper side slopes in order to maximize the height of the landfill. The plan also identified requirements to ensure the landfill facility minimizes safety risks.

Since adoption of this plan, the Administration has implemented a number of improvements including the development of a new cell, increased outer slopes, safety and operational-related improvements, and the purchase of new equipment in 2016.

Report

Updated Procedures are Required

The Landfill is a finite asset with an anticipated lifespan of 40 plus years, depending on current and ongoing capital and operating investments. The amount of waste that is placed in the Landfill every year consumes millions of dollars' worth of airspace. With specialized equipment, training, and best practice waste handling procedures, the available airspace can be maximized. Present day operations have a critical impact on the lifespan of the Landfill since it is virtually impossible to improve compaction once the lifts (or layers) of waste have already been placed.

Operation of heavy equipment is one of the most hazardous activities that takes place at the Landfill. The potential for serious harm and/or damage is always present, but can be mitigated by site-specific procedures and training.

The delivery of a new Caterpillar D7E track-dozer and Caterpillar 826K Landfill compactor in 2016 compounds the need to update existing procedures and training.

The Administration investigated options to provide these services. It was determined that this type of expertise is held by a limited number of companies in North America.

Request for Proposal

An RFP was issued in August 2016 with only one proposal being received. The proposal received from Blue Ridge Services was scored and deemed acceptable from a quality perspective. The initial proposal included many items that the City did not request or require of the proponent. As Blue Ridge Services was the only proposal received, the City worked with Blue Ridge Services to redefine the scope to deliver the necessary work, while meeting the project budget.

Blue Ridge Services will provide to the City as part of the project:

- An assessment of current site operations
- A customized on-site Standard Operating Procedure and training program
- On-site & hands-on training to equipment operators and supervisors
- Implementation assistance

Blue Ridge Services has performed similar work at other Canadian landfills, including the City of Regina in 2015.

The net cost to the City for the training services, as described above and within the proposal submitted by Blue Ridge Services in US Dollars, would be as follows:

Training Services (Total Proposal Price)	<u>\$54,823 (USD)</u>
Net Cost to the City	<u>\$54,823 (USD)</u>
Net Cost to the City (Canadian Dollars Estimate)	<u>\$73,564 (CAD)</u>

Options to the Recommendation

The Administration could re-tender the work, however, this is not recommended as the proponent met all of the City's requirements and the cost is within budget. Administration could also cancel the proposed training, however, this would result in a reduction in savings over the life of the Landfill and would require an alternate solution to mitigate safety risks.

Financial Implications

Specialized equipment, training and waste handling procedures will maximize the available airspace in the Landfill. Even with conservative improvements in compaction density, it is estimated that millions of dollars in savings will be achieved over the life of the Landfill.

Upon completion of the project, there will be an anticipated reduction in the number of equipment hours needed, resulting in operational cost savings of approximately \$22,500 per year. Capital Project #2051-01 - Landfill Optimization has sufficient funding for this training.

Environmental Implications

The reduction in equipment hours will save on fuel consumption at the Landfill resulting in 18 fewer tonnes of CO_2 being released, the equivalent of removing four cars 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

On-site training will be scheduled as soon as the contract is executed. Training should be completed in spring 2017.

Public Notice

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

Report Approval

Written by:	Scott Theede, Acting Environmental Operations Manager
Reviewed by:	Michelle Jelinski, Senior Project Management Engineer, Water &
	Waste Stream
	Russ Munro, Director of Water & Waste Stream

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

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