City of Saskatoon
Internal Audit Report - Parks - Service Levels and Asset Management

September 2018

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Executive Summary

The Strategic Risk Register of the City of Saskatoon (the "City") contains risk QL-1, which is that "The City may not be investing sufficient funds in its parks infrastructure to maintain an acceptable condition and level of service". Two of the root causes of this risk are noted as the "absence of an established asset management plan/life cycle costing process" and the "absence of approved service level objectives". In recent years the City has taken formal measures with respect to both asset management and the identification of service levels. For Parks, this culminated in reporting to City Council in the fall of 2017 on both subject matter areas. This process and the final reporting resulting from it were significant risk management activities undertaken by Parks to address risk QL-1.

The two primary objectives of this project were 1) to review Parks' reported service levels relative to actual performance and assess the ability of Parks' current processes, procedures and controls to capture accurate service level information and 2) to review the effectiveness of Parks' current processes, procedures and controls related to asset management/life cycle decision making (i.e. planning, acquisition, operation, maintenance, rehabilitation and replacement/disposal). As part of reviewing service levels, we also examined individual topic areas that could currently impact the cost of providing acceptable service levels, for example new parks inventory.

Simply put, this project aims to assess Parks' current state with respect to both of these subject matter areas and to make practical recommendations for Parks to consider and implement in order to continue to improve and build on 2017's accomplishments.

Throughout our review, including from the interviews undertaken, we observed that Parks' staff had an understanding of the service delivery targets and customer performance measures established for 2018, which were based on 2017's service activities. We noted that there is room for improvement in terms of establishing processes, procedures and controls to capture accurate service level information and to monitor it regularly for purposes of facilitating the periodic reporting of service delivered compared to service delivery targets.

We also observed that representatives from Parks, Finance, and Facilities and Fleet Services had an understanding of the importance of (and shared responsibility that they have in) asset management and the impact that it has on service delivery and the costs thereof, including an understanding of the need to have accurate, up-to-date information on assets and their condition. However, we also observed that there are currently some inherent obstacles in terms of available resources (both human and technological) to populate and maintain the various asset listings required to facilitate asset management.

Two key focus areas that Parks can focus on related to improving and building on 2017's accomplishments in the areas of service levels and asset management are to improve the accuracy and completeness of its asset listings for the next round of asset management exercises/reports and to develop key performance indicators that fully align with the targets and measures established for 2018 and beyond, with tracking and reporting mechanisms to monitor and evaluate their progress relative to those key performance indicators.

We appreciate the assistance of the individuals from Parks, Finance and Facilities and Fleet Services that participated in this project. The recommendations provided throughout the report and summarized in Appendix 1 are aimed at providing guidance to Parks in focusing its efforts with respect to service levels and asset management.

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1. Overview

1.1 Strategic Risks

The Strategic Risk Register of the City of Saskatoon (the "City") contains risk QL-1, which is that "The City may not be investing sufficient funds in its parks infrastructure to maintain an acceptable condition and level of service". Two of the root causes of this risk are noted as the "absence of an established asset management plan/life cycle costing process" and the "absence of approved service level objectives". In recent years the City has taken formal measures with respect to both asset management and the identification of service levels. For Parks', this culminated in reporting to City Council in the fall of 2017 on both subject matter areas. This process and the final reporting resulting from it were significant risk management activities undertaken by Parks to address risk QL-1.

Other strategic risks identified in the City's Strategic Risk Register that have relevance to Parks' asset management and service levels include A&FS-2: "The City may not be considering the total costs of asset ownership when making investment decisions" and A&FS-8: "The City's decision making processes may be hampered by unintegrated information systems and data sets (financial and operational)".

Another underlying risk for the City is that there is the potential of not meeting funding requirements of higher levels of government based on the status of asset management. For example, there can be requirements to have asset management plans ("AMP's") in place in order to receive government funding. An example of this is the *Federal Gas Tax Fund,* which requires that the municipality requesting the funds must have asset management goals in place and be making progress towards developing and/or implementing an AMP.

1.2 Background

Service Levels

As part of the Strategic Goal of Continuous Improvement and the 4-year priority area of "opportunities to modernize civic government", the City's Administration has undertaken work in recent years to better define service levels, and attach unit costs to service levels, to enable better-informed decision making during the annual budgeting process. In early 2017, a multi-division internal process review team developed a template to outline service level information at the service line level. Parks was one of the first areas to define its service levels and tie those service levels into its 2018 budget request.

Asset Management

The City's Administration has a long-term goal of having AMP's in place for all City-owned assets, which supports the City's Strategic Goal of Asset and Financial Sustainability and the 4-year priority to "establish levels of service for rehabilitation of assets and identify supporting financial strategies". Work undertaken in recent years aligns with the City Administration's 10-year strategy to "adopt and implement a corporate-wide asset management and rehabilitation philosophy". The AMP's are intended to assist in the stewardship of assets and delivery of services.

In 2016, the City's Administration developed AMP's for eight major asset categories, with Parks being one of those categories. As part of the 2017 annual budget review process, the AMP's with identified funding gaps for rehabilitation and maintenance were taken to City Council to support funding requests. Parks also provided an updated AMP to City Council in 2017.

2. Scope, Objectives, Approach

2.1 Scope

The scoping for this project was focused on the largest service line in Parks (Park Maintenance and Design), which had a total 2017 service line budget of approximately $13.4 million. Furthermore, the scoping was focused on the three largest programs within that service line: Park and Open Space Maintenance, Sport Field Maintenance, and Irrigation Services. Together, these three programs represent approximately $11.4 million (85%) of the total forecasted 2017 service delivery cost.

Table 1: Reported financial data for in-scope programs

Service Activity	2017 Budgeted Cost[1]	2017 Actual Cost[2]	2017 Variance in Cost	2018 Budgeted Cost[3]
Park and Open Space Maintenance	$6,716,400	$ 6,853,439	+$ 137,039	$7,153,200
Sport Field Maintenance	$1,548,500	$ 1,532,472	-$16,028	$1,516,700
Irrigation Services	$3,099,400	$ 3,852,052	+$ 752,652*	$3,266,900

[1] Per - Park Maintenance and Design - Service Level - Attachment 1 -Public Agenda Standing Policy Committee on Planning, Development and Community Services on October 2, 2017
[2] Per 2017 General Ledger listing provided by Finance staff
[3] Per 2018 Budget document provided by Finance staff
* Primarily due to water over expenditure caused by dry growing season

Table 2: Reported asset replacement cost for in-scope assets

Parks Asset Type	2016 Asset Plan[1]	2017 Asset Plan[2]
Park and Open Space (Pathways, Play Structures*/Playgrounds)	$51,330,000	$58,500,000
Sports Fields**	Not reported	$38,200,000
Irrigation System	$34,500,000	$34,500,000

[1] Building Better Parks: An Asset Management Plan for Parks - Attachment 1 (July 2016)
[2] Building Better Parks: An Asset Management Plan for Parks - Attachment 1 (October 2017)
*Note that Play Structures are an asset of Facilities
**Note that Sports Fields are a shared asset, with Facilities owning items such as benches and Parks owning the playing surfaces

In addition to the assets listed in Table 2 immediately above, Facilities and Fleet Services maintain an inventory of vehicles and equipment used to maintain the above asset categories. Finance provided an internal listing for the vehicle and equipment assets that indicated a total replacement cost of approximately $9.15 million.

2.2 Objectives

The two primary objectives of this project were 1) to review Parks' reported service levels relative to actual performance and assess the ability of Parks' current processes, procedures and controls to capture accurate service level information and 2) to review the effectiveness of Parks' current processes, procedures and controls related to asset management/life cycle decision making (i.e. planning, acquisition, operation, maintenance, rehabilitation and replacement/disposal). As part of reviewing service levels, we also examined individual topic areas that could currently impact the cost of providing acceptable service levels, for example new parks inventory.

Simply put, this project aims to assess where Parks is currently at with respect to both of these subject matter areas and to make practical recommendations for what Parks can do to continue to improve and build on 2017's accomplishments.

At a more granular level, the objectives for the service level portion of the project were to:

a. Analyze Parks' reported service levels against actual performance and the ability of the current processes, procedures and controls to capture accurate service level information. In the case of gaps, the objective would be to provide Parks with tangible and implementable recommendations to close those gaps.

b. Assess individual topic areas that could currently impact the cost of providing acceptable service levels within individual programs. Examples of these potential topic areas would include assessing whether sports fields generate sufficient revenue to provide sustainable service delivery and/or assessing service levels for new parks inventory, including the appropriateness of operating impact calculations and the consideration of establishing different service levels for new inventory.

At a more granular level, the objectives for the asset management portion of the project were to:

a. Assess the effectiveness of Parks' asset management practices, including compliance with relevant policies and directives of City Council.

b. Determine whether Parks policies and practices related to asset management inventorying allow for accurate and complete asset management planning.

2.3 Approach

We applied leading practice for service level performance management when assessing Parks' performance management activities related to their customer performance measures as detailed in their 2018 service level and budget document. Our approach included the following activities:
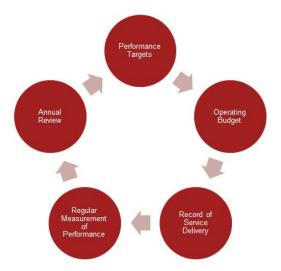
1. Review and study relevant existing documentation, including those documents listed in Appendix 2.

2. Interview key Parks, Finance and Fleet Services personnel to further understand the current state of asset management and service levels and the technology used to track and monitor inventory and work orders. Please refer to Appendix 3 for a full list of interviewees.

3. Based on the understanding obtained through the above mentioned activities, perform assessments on in-scope service lines of the following:
   a. Asset management processes and practices;
   b. Tracking and reporting processes and practices for service level performance targets; and
   c. Technology and data management capabilities of existing Parks' systems (i.e. TMA and TSE, Timberline, M5) and inventory tracking spreadsheets. Please refer to Appendix 5 for information on the systems used by Parks.

4. Select a sample of new parks handed over to the City in 2017 from developers to determine if the level of amenities for new parks exceeds the standard established in recent years, and whether the impact to the budget for maintenance costs at these new parks accurately reflects park amenities.

3. Service Levels

In August of 2016 we conducted a review of the City's readiness for multi-year budgeting, and identified existing gaps and actions required to implement multi-year budgeting. The report highlighted the need to link strategic and operational priorities to high level citizen-based outcomes and the setting of specific key performance indicators (KPIs). The report states that one of the success factors of multi-year budgeting is for the City to have a model that allows business units and functions to relate financial outcomes to service levels and citizen impacts. Tying in service levels and outcomes to financial reports helps to effectively articulate outcomes to the public. Parks was one of the first divisions to link its budget request to a Service Level Agreement when it took forward its 2018 budget request.

Parks has taken significant progressive steps in establishing its service level document in 2017, and its next steps forward in this area from our perspective are to establish performance measures and a reporting/ communication structure to ensure accountability for the attainment of the agreed-upon levels of service. Through our interviews and review of existing processes over the course of the project, we concluded that there is room for improvement in terms of Parks developing the necessary processes, procedures and controls to measure performance and identify gaps between service level targets and actual service levels.

The incorporation of effective service level management typically includes five key elements, as depicted in the illustration below. Our assessment considered the current state of Parks' service levels to understand the efforts and achievements to-date and to help identify areas for improvement.

Parks' approved levels of service establish the level of service that citizens can expect by setting the standards of frequency for various types of services that Parks provides. Parks' budget was formulated to allow for the achievement of specific service level targets, as listed in Appendix 2. The service delivery requirements have been recorded by Parks' staff as work orders in the TMA system. Therefore with the work done to-date, Parks has addressed the first three elements as noted in the illustration above. The two elements that Parks needs to develop further are *"Regular Measurement of Performance"* and *"Annual Review".*

3.1.0   Regular Measurement of Performance

Parks' Service Level Agreement has established the targets for service, and an important next step is for Parks to establish Key Performance Indicators (KPIs) to measure its performance against those targets. The KPIs are the gauges that will enable for a high-level view of Parks' performance relative to its approved level of service.

It is important that KPIs be set only for the "measures that matter" in order that the number of KPIs does not become excessive and unmanageable. KPIs should be limited to those that are a) most relevant to Parks' for decision making and b) most impactful to City Council and citizens in order to provide assurance that performance targets in the approved levels of service are in fact being met.

Often the reporting of KPIs in isolation over a single period does not provide sufficiently useful information. An indication of how performance has improved or declined over time (i.e. year over year trend reporting) will provide more value in terms of assessing the success of Parks' chosen KPIs. It is important that the 2019 data is captured in a manner that enables for reporting of comparatives and trends in future years. It is natural that once established, KPIs may evolve over time, and any such changes will need to be reported and explained in order for comparability and trend analysis to remain meaningful (please refer to recommendation #1 in Appendix 1).

Potential types of performance measures that Parks could be mindful of as it develops its KPIs, keeping in mind that all performance must ultimately be assessed against existing service level targets, are:

- Operating Cost - per capita measure of operating cost on a per resident and/or per park basis and/or per hectare of park space basis (tied back to service level targets to ensure that costs are not managed to meet performance measures in a way that is detrimental to achievement of service level targets);
- Service Quality - citizen satisfaction as measured by survey responses; and
- Other - KPIs could be set to measure productivity of staff (operators) relative to the expected level of effort to deliver services and the actual effort (time) taken to deliver the services. Currently productivity at the staff level or division level is not measured; rather total spending is examined at the conclusion of the year to determine whether spending was under or over budget.

KPIs benchmarked against other municipalities will be most useful although it is imperative that, where possible, the City follow similar methods to calculate their KPIs as their peers in order to allow for meaningful (i.e. "apples to apples") comparisons. A recent benchmark comparison undertaken by Parks was reported in the 2017 "Park Maintenance and Design Service Level" report, where an average "Cost to Operate Parklands" of the City was compared to eleven other Canadian municipalities.

In the Administration's "Park Maintenance and Design Service Level" report, Saskatoon was found to have a below average per resident cost, which was in part attributed to the fact that the benchmarked municipalities included certain types of direct and indirect support service costs. The Administration's report also noted that there were a number of differences among the types of parks (and amenities within the parks) of other municipalities included in the benchmarking, ultimately rendering it difficult to truly assess whether Saskatoon does in fact have a below average cost to operate. As a starting point, coordinating with the City of Regina to determine its methodology for tracking and reporting its costs per resident and per hectare would be relevant, as the City of Regina publishes that information as part of its involvement with Municipal Benchmarking Network Canada (MBNCanada).

3.1.1 Tracking, Monitoring and Reporting KPIs

In order to support accountability and transparency, an important next step is for Parks to track, monitor and report on its KPIs and customer performance measures relative to its established targets. When done correctly, KPI reporting will provide Parks with tangible and accurate evidence regarding its service levels (please refer to recommendation #3 in Appendix 1).

Tracking

Tracking KPIs enables management to focus on its goals and objectives and it provides insights into those areas that are, or are not, performing as expected. In order to track KPIs the correct data needs to be collected, whether that be manually or within a software application. Consideration needs to be given as to what data will be meaningful and useful in providing an overall picture of where Parks is at in meeting its performance goals.

Based on our review of documentation and interviews conducted, we noted that for some activities it would be challenging for Parks to extract data that would provide complete and accurate information on an individual activity level; this information is needed only to the level of detail necessary to determine if Parks is meeting service performance measures and KPIs. One obstacle to tracking the proper data is that not all invoices are consistently coded with sufficient detail to capture the specific activity and/or the specific park that the invoice and/or work order relates to, and as a result this information is not consistently being recorded in the proper place within the general ledger. We also noted that employees may not be consistently coding their time to the correct activity code. Another obstacle is that there are a number of different interfaces and touchpoints for the accounts payable and job costing processes within Parks (with some of these processes occurring in the Timberline system) and there is currently no formal process to reconcile the information in the Timberline system to the general ledger. Therefore no one individual Parks or Finance application can currently provide a complete or accurate record of activities (please refer to recommendation #2 in Appendix 1).

Monitoring

Monitoring activities include having a systematic process for collecting the data, analyzing the data, and monitoring the data over a period of time. Once Parks has established the KPIs and how to track them, supervisors should be monitoring the progress on each KPI. Regular monitoring brings issues to management's attention early enough that action can be taken to adjust activities in order to get back on track to meeting the KPI (please refer to recommendation #3 in Appendix 1).

Reporting

Once KPIs are being properly tracked and monitored, the reporting that is developed and prepared should then provide sufficient explanations for variances or highlight causes for concern with respect to meeting service levels at the approved budgeted service delivery cost levels. Based on the status of tracking and monitoring activities, Parks has yet to develop standard reports that allow for the communication of progress relative to KPIs and customer performance measures throughout the year. When developing its reporting mechanism, it will be critical for Parks to properly consider the users of the information, both internal (i.e. operational staff, general City Administration) and external (i.e. citizens and City Council).

For internal purposes, it would be beneficial for tracking, monitoring and reporting to occur at the individual program level and at the individual park level relative to the individual program/park budget in order to pinpoint possible inefficiencies or concerns at a more granular level than citizens and/or City Council might require. The current method of recording jobs and costs in the Timberline and TMA systems and in the general ledger may not be at a sufficient level of detail to allow for reporting at this level of detail. Costs relating to individual parks and activities can currently be generated from the Timberline system, however we noted from our review of documentation and interviews with Parks staff

that this information, when extracted from the Timberline system, is not consistently clear or understandable (please refer to recommendation #2 in Appendix 1).

Parks has established job work orders within the TMA system to trigger the work required to be done to meet the service level targets established for 2018. Supervisors are able to generate reports indicating hours per activity per park for all scheduled work orders, however not all jobs performed are being consistently entered in the system (i.e. special, unplanned work to address a citizen complaint) therefore reports from the TMA system would not necessarily accurately portray all activities performed at a point in time. (please refer to recommendation #2 in Appendix 1).

3.1.2   *Customer Performance Measures*

Each of the in-scope programs (as described in Section 2.1 on page 4) have customer performance measures as documented in the Parks Service Level document. We reviewed the measures described on the pages that follow and considered whether Parks currently has mechanisms in place to track and monitor the various measures. While for the most part the work activities related to the measures have been entered in the job scheduling system to prompt staff to perform the work, mechanisms for tracking, monitoring, and/or reporting on the measures have not yet been established.

In some cases, if an activity had already occured in 2018, we considered whether data was available to demonstrate whether Parks had met the related measure. Throughout the course of our work we also identified any potential challenges Parks may have in meeting its customer performance measures.

Park and Open Space Maintenance

Based on our review of documentation and interviews conducted, we understand that parks, grounds and open spaces are cleaned and maintained in accordance with plans, procedures and schedules that are largely undocumented. When faced with new challenges and/or new activities (i.e. new parks or new events occurring within those parks), the Park and Open Space Maintenance team tends to handle these new challenges and/or activities within the context of historical operations.

Throughout the season, mowing[1] occurs on a regularly scheduled basis during the 18 week active growing season from May 15th to September 15th. The frequency of mowing is based on factors such as irrigation status, intended use and available resources. Examples of mowing frequencies are as follows:
- Irrigated parks – up to 18 times per season;
- Non irrigated parks and sport fields – 9 times times per season;
- Roadway ditches, center medians and other right-of-ways – 4 to 5 times per season;
- Berms – 3 times per season; and
- Highway connectors - once per season to the City limits.

Irrigated and non-irrigated parks may be fertilized and aerated once per season. Litter pickups and line trimming occur in conjunction with mowing schedules in the summer. Waste collection frequency varies between summer and winter seasons based on staff availability and historical usage patterns. From May 1st to October 15th waste is collected at a minimum of once per week from receptacles. From October 15th to May 1st collection schedules can be stretched to as long as once every three weeks.

Shrub beds receive maintenance services on a frequency determined by a tier system. Tier 1 is serviced up to 8 times a season and includes park entrances, streetscapes, sign beds, facilities and riverbank areas. Tier 2 is serviced 4 times a season and includes park frontages, irrigated park areas, boulevards and center medians. Tier 3 is serviced 1-2 times a season and includes bluffs, shelterbelts, buffers, flankages, berms, right-of-ways and wetlands. Plants are not replaced in Tier 3 shrub beds.

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[1] Areas that are not mowed include front boulevards, alleys, back lanes and slopes that exceed a 3:1 gradient. Circle Drive Corridor's maintenance is contracted out with the requirement that it is fully mowed twice a year.

The Parks Open Space Maintenance program provides snow removal services for areas adjacent to city-owned parks. Sidewalks adjacent to parks and all lighted park pathways and a portion of the unlighted pathways are to be cleared within 48 hours of the snowfall ending in accordance with Bylaw No. 8463 *The Sidewalk Clearing Bylaw*.

Sports Field Maintenance

Based on our review of documentation and interviews conducted, we understand that there are currently just over 100 sports fields that the City charges for use of, and that staff work with public user groups to understand the needs of those groups and to address concerns that may arise during the year. Specifically, two full days of meetings with user groups are held in the fall each year to discuss areas of strength and areas requiring improvement. The follow-up process stemming from these meetings are for Parks' staff to communicate concerns raised to the proper department in order that they may be addressed. Further meetings are held on-site during the summer to discuss requirements and requests as they arise and calls from the public concerning sports fields are directed to the Superintendent of Sports Fields.

Based on our review of documentation and interviews conducted, we understand that a current area of concern related to achieving 2018 service level targets for sports fields relates to equipment (both quantity of available equipment and condition of existing equipment). We understand that, due to budget constraints, Parks at times makes trade-offs in their requests for new equipment. It was noted at the time of fieldwork that there were unfulfilled requests for equipment that were impacting service delivery. The appropriate equipment, and appropriate utilization of that equipment, is vital to Parks meeting its performance measures, therefore Parks would benefit from a thorough review of its inventory to ensure they have the proper equipment and the proper quantities of each type of equipment, with proper consideration given to selling off underutilized and less essential pieces of equipment (please refer to recommendation #4 in Appendix 1).

At the start of the season, safety checks are performed at the same time as infield grooming is performed. Class 1 fields are checked and groomed daily during the allocation season. Class 2 fields are checked and groomed 3 times per week and Class 3 fields are checked and groomed 2 times per week. Throughout the season, irrigated sports fields are mowed 18 times per season. Additional mowings that may double that frequency for certain sports fields are paid for by user group fees. All sports fields are measured once in spring and lines are painted twice per year (once in the spring and again in late summer/early fall). Any additional line painting requested by user groups is performed on a cost recovery basis. All charged fields are top-dressed and over-seeded in the fall. Irrigated sports fields are fertilized 2 times per season and aerated a minimum of 2 times per season. They are re-seeded once every four years. Sod may be replaced around goal posts as necessary.

Sports leagues typically commence in early May and mowing commences at that time. Sports field maintenance staff tend to mow 36 times in a season, with half of those mowings being chargeable to user groups. The established service target of 18 mowings is for the City-paid mowing from the Parks budget. A work order is set up in the TMA system for each mowing and the aim is to have cost recovery on additional mowing and litter/garbage collection. Litter maintenance and grooming occurs once per week. Currently monitoring for this service target is informally performed by supervisors who are travelling around to different sport field sites daily.

Sports Field Maintenance staff also have service delivery targets for snow removal as needed from City-owned parking lots, park roadways and arenas throughout the winter.

Irrigation Services

Based on our review of documentation and interviews conducted, we understand that the majority of sprinklers in City-owned parks are controlled by a centralized control system. This system is based from a control centre that sends messages to the eight communication hubs around the City, which then send out the messages to individual park irrigation systems in order to communicate when the sprinkler should be turned on or off. The irrigation system uses the intranet to communicate to the eight communication hubs, which then send signals to individual parks using radio communication. The irrigation system is also connected to the four weather stations around the City and it performs checks every 30 minutes to determine if rainfall has met any of the thresholds in place (for example, 0.2 inches of rain trigger a 2 day water shutoff). Older City-owned parks have manual sprinklers that require a staff member to turn them on and off.

Irrigation Services relies on the centralized control system being able to communicate with the hubs and in turn with the individual park systems. We understand that there are currently "dead spots" in the City that prevent this communication from being fully effective. At the time of our on-site fieldwork, staff were performing radio testing to determine the exact location and possible causes for the dead spots (i.e. tall buildings have the potential to cause issues with radio frequency transmissions). Based on our review of documentation and interviews conducted, we understand that there is currently a 20% to 30% communication failure rate, which presents an obstacle in terms of meeting certain service delivery targets. The communication failures directly tie to the timely turning on and off of sprinklers. If it is raining and sprinklers are not automatically turned off through the system, then this represents wasted water costs which in turn impacts Parks' budgetary ability to water properly at other times in the season.

Standing work orders are created in the TMA system each year that include the following activity groups: spring start-up, backflow testing and winterizing. Irrigation is broken up into 12 routes across the City and irrigation systems begin activation in late April. Activation and service of all park and streetscape systems is typically targeted for completion by June 1. All infield watering outlets for charged sports fields are activated and tested by May 1 to mitigate dust for user groups in advance of general turf watering. Backflow prevention testing and required repairs to approximately 400 double check valve assemblies are completed annually by licensed irrigation staff.

Based on our review of documentation and interviews conducted, we understand that one of the primary pressure points for Irrigation Services relates to the quantity and cost of water as opposed to staffing and/or equipment challenges. Based on budgeted water costs, it is estimated that in a typical season there is sufficient budget for approximately 34 days or irrigation during the May to August season. Depending on the amount of heat and rainfall in a given summer season, this may not provide sufficient irrigation to maintain desired conditions.

During our fieldwork we obtained various information as evidence as to whether the service targets (customer performance measures) were being measured, including information detailing dates of activation and shut-off for the park and streetscape systems, testing dates and sign-offs for watering outlet activation, reports detailing the amount of water received per park, backflow testing and sign-off dates, and irrigation complaint reports indicating resolution time (Parks' target is 48 hours). Based on the evidence obtained it was noted that irrigation system malfunctions can relate to a number of different factors, including: inability to communicate (i.e. the field unit cannot communicate with a hub due to radio, antenna or power issues), power failures (i.e. power has been turned off at some point to the field unit, typically due to a power outage), high flow alarms (i.e. a break in the main or later line typically caused by broken sprinkler heads), or sometimes simply a low battery.

As noted, during the season irrigation trouble reports are targeted to be investigated within 48 hours from time of receipt. Based on our testing performed, we noted two irrigation trouble reports which were addressed over a period exceeding 48 hours. Per follow-up procedures with Parks' representatives, we understand that while the majority of trouble reports are addressed within a 48 hour period, some will fall outside of that target period, with the cause typically related to conflicts in scheduling and multiple priorities of the maintenance crew (please refer to recommendation #5 in Appendix 1).

Any other safety-related or property flooding concerns are targeted to be addressed immediately. 24 hour on-call coverage is provided by Irrigation Services to address any after-hours emergencies. The 24 hour coverage begins once the sprinklers are activated at the start of the season in the spring. The on-call crew consists of 4 senior staff members and each individual is assigned a one-week period (i.e. Monday to Monday) per month to cover. For their assigned week, each individual utilizes a City-owned cellular phone for this purpose.

Line locating is performed for all special events and utility excavations within parks and other irrigated spaces such as streetscapes. In terms of the process for Parks to become informed of special events in advance, in recent years the City developed a "Locate Request" web page on the City's website. On the main page there is a "Request An Online Service" link that opens a drop down menu and under the "Water" section there is a "Parks Irrigation Locate Request Form". The page has been shared with most contractors and with the Special Events group, and is referenced on the Special Events Application to help ensure awareness of the need for Special Events coordinators to be aware of this City requirement. Once Irrigation Services receives a completed "Irrigation Locate Request Form", a staff member is scheduled to complete the required work.

Irrigation services are typically shut-off as of September 1st with the exception of sports fields, which continue to be irrigated as long as they are allocated. The winterization target date is October 15th plus or minus one week for the entire system, including sports fields. We were unable to validate the irrigation season shut-off service level target as it had yet to occur in 2018 during our project fieldwork.

3.2   Annual Review

An annual review of performance would allow Parks to fully understand its performance over the course of the budget year. An annual review would consist of reviewing the results of each KPI and analyzing the results as required to understand the root causes for any unmet KPI and/or customer performance measures. The results of this review could be shared with the Parks Director and Standing Policy Committee on Planning, Development and Community Services (if requested), and would assist in the development and refining of subsequent service level targets and budgets.

3.3   Repairs and Maintenance

Fleet Services is responsible for repairing and maintaining the vehicles and equipment utilized to perform maintenance activities for parks, open spaces, and sport fields. Fleet Services' ability to provide timely repairs directly impacts Parks' ability to meet its customer performance measures. Extended turnaround time on repairs has the ability to negatively impact Parks' staff as a result of not having access to the vehicle or equipment required in order to perform maintenance work on a timely basis. These vehicles and equipment fall into two categories: those owned by Parks and those owned by Fleet Services.

Parks' Owned Vehicles and Equipment

Parks transfers funding to Fleet Services based on a cost recovery model for costs incurred by Fleet Services, such as parts, labor, fuel and replacements. We understand that there is typically a team consisting of 4 individuals assigned exclusively to Parks' repair and maintenance, including one supervisor. This team consists of a working supervisor and mechanics, located at both east-side and

west-side locations, five days per week. Through our interviews during the project, we understand that Parks' staff typically do not experience significant delays in repairs being completed and are able to adjust their work activities accordingly to accomodate for a certain piece of equipment being temporarily out of commission. For example, if a mower is being repaired then the staff at that park will re-prioritize and work on weeding and trimming of shrubs and/or flower beds that day instead of the scheduled mowing. Delays of more than two days, while not typical, can negatively impact the ability to meet service targets.

With respect to repairs and maintenance of vehicles and equipment, there currently is not a formal work order system in place to record requests from Parks' staff for repairs. Parks' staff will communicate directly with Fleet Services (typically the mechanics) when a piece of equipment is taken to the shop for repair. Without a formal work order system, there is a risk that repair requests may be inappropriately prioritized. As there is no record of work orders we were unable to determine the average repair times or formally track any significant delays in repairs, or inappropriate prioritizations, throughout the 2017 season. We recommend that a formal work order system be applied to the repairs and maintenance process with some central supervision in order that risks regarding delays and prioritization are minimized (please refer to recommendation #6 in Appendix 1).

Proper maintenance of vehicles and equipment not only ensures the availability of these assets for Parks to use for service delivery but it also helps to optimize asset management. On an annual basis, at the end of each Parks season, vehicles and equipment are brought in for servicing and preparation for the next season. However, there is currently no process in place for performing and tracking preventative maintenance throughout the year. As with reactive repair work, the preventative work is not recorded in the M5 system, which would facilitate a better understanding of the condition of an asset. This also could assist in justifying the need for replacement assets on a more timely basis; for instance, if it is tracked that a particular asset is continually requiring repairs and new parts, that information could be used to prioritize replacement purchases.

Fleet Services is currently aiming to increase personnel in response to increases in park hectares and civic fleet equipment. We understand from review of documentation that when new parks are developed or turned over to the City from developers, operating impact is requested by parks through the budget process to support increased labour, however there is no similar process currently in place for the Fleet Services staff to reflect additional repair and maintenance activities.

As a result of our interviews, we understand that Fleet Services has the intent to create an annual report for Parks, which will include a listing of the assets used by Parks, the age and condition of assets, and the mileage of an asset (if applicable) and that this report would be included in a Service Level Agreement with Parks. In order to make reporting at this level most effective, the repair and maintenance for each asset should be entered into M5 as it occurs and mechanics should also input repairs and new parts information into M5 to enable Parks to better understand the costs of an asset throughout its lifecycle (please refer to recommendation #9 in Appendix 1).

Civic Fleet

Larger vehicles, such as chippers and trucks, are part of the civic fleet owned by Fleet Services and rented to Parks. Similar to the risk noted in the section immediately above, if Fleet Services does not have a sufficient number of staff to perform repairs and maintenance activities on a timely basis then vehicles may not be available for Parks to use when needed, which could negatively impact Parks' ability to meet its service targets and customer performance measures. At the time of our fieldwork, Fleet Services was in the process of conducting a service level review with respect to maintenance of Parks' equipment. In addition, in April of 2017 a project charter was prepared with regards to Fleet Service's capacity to deliver on Parks' requirements. The primary objective of this exercise was to provide an analysis of staffing levels to determine the optimal number of mechanics required to service the current fleet of Parks equipment and determine if other positions are required.

4. Asset Management

Parks has taken significant progressive steps in establishing its updated asset management plan in 2017, and from our perspective its next steps forward are to address the inherent obstacles of available resources (both human and technological) to populate and maintain the various asset listings. Through our interviews and review of existing documentation over the course of the project, we concluded that there is room for improvement in terms of Parks maintaining the necessary processes, procedures and controls with respect to its asset management information in order to support the overall corporate asset management planning function. Our focus for this project was on activities that can be undertaken at Parks to bolster the overall corporate asset management planning process, as opposed to activities that are undertaken by the Asset and Financial Management department.

In May of 2017 we conducted a review of operating and life cycle costs in Asset Management Plans (AMP's) and the annual capital budget cycle. The overall scope of the project was to review the current capital budgeting process and existing AMP's to identify improvements, particularly with respect to how best to incorporate the impact of future operating costs and asset life cycle costs into new asset investment decisions. As part of that project we reviewed the 2016 Parks AMP. The review at the time determined that there was sufficient information contained in the AMP regarding the potential plan to address the funding gap and the costs required to do so. However, the plan did not include details on life cycle costs, both the repair and maintenance of existing assets as well as the replacement of existing assets. If these were captured in detail in the AMP, there would be a direct connection between the AMP and the capital and operating budgets on an annual basis and there would be clarity each year on life cycle costs.

As noted above, our focus for this current project was not on the overall corporate exercise of asset management planning and the related AMP document, but rather on practices and processes that Parks itself can incorporate into its operations to facilitate improved corporate asset management planning. The incorporation of effective asset management practices will ultimately assist Parks in better managing its service delivery costs over the lifecycle of core assets. Our assessment considered the current state of Parks' asset management practices to understand the efforts and achievements to-date and to help identify areas for improvement.

4.1 Components of Asset Management

Asset management can be portrayed as comprising five separate components as outlined below. Our observations for each component are primarily focused at the Parks level but contain some commentary on necessary linkages, where applicable, to overall corporate asset management planning.

Strategy: Alignment of vision and operations

The City has developed a Corporate Asset Management Plan, which is a long-term plan developed to manage infrastructure and ensure that the City's assets are capable of meeting the levels of service committed to citizens. This plan is part of the outcome of the City's 10-year strategy to adopt and implement a corporate-wide asset management and rehabilitation philosophy. As of May 2018, the Administration was in the process of formalizing a strategy. The responsibility for this component of asset management planning rests with the City Administration's Finance division as opposed to Parks, although once the strategy is formally implemented it will be important for Parks' activities to be aligned with the strategy.

A key challenge for the Administration's Finance division to move asset management planning forward is to manage resources from both a time/capacity perspective and skills/capability perspective. To address this challenge, the City is involved in the Municipal Asset Management Program (MAMP) offered by the

Federation of Canadian Municipalities (FCM). This program provides assistance to municipalities in the development of their asset management strategy and policy. MAMP also provides funding for projects that provide assistance to municipalities in enhancing their asset management practices. The City has participated in round table discussions and training.

Structure: Governance and policy

The May 2017 *Capital Planning and Budgeting, Life Cycle Costs and Operating Costs* internal audit report recommended that the Administration develop its asset management and capital planning policies related to the maintenance and replacement of assets, stakeholder roles and responsibilities, and expectations regarding service life of assets. As of May 2018, the Administration was in the process of formalizing a policy from an overall corporate perspective which would then be communicated to the rest of the organization. The responsibility for this component of asset management planning rests with the City Administration's Finance division as opposed to Parks, although once the corporate-wide asset management policy is in place, Parks will need to align its practices and procedures to the policy.

Process: Alignment and discipline

The Administration will need to develop and implement processes, procedures and practices to assist and define the management of assets across the organization once it has an approved corporate asset management policy. Parks should then align its practices and procedures to the corporate asset management policy. In the meantime Parks needs to establish formally documented procedures that speak to current practices and to prepare them to have the right information in place to ultimately flow into the overall corporate asset management plan. The focus for Parks at this time should be on having accurate and complete inventory listings with accurate, up-to-date asset condition information.

People: Skills and capability

Asset management generally requires expertise in multiple disciplines - including engineering and finance. There are currently no staff trained in asset management and lifecycle maintenance in Parks (please refer to recommendation #7 in Appendix 1). Parks would also benefit from a corporate-wide working group to support its asset management activities. Key benefits to Parks and the organization as a whole would be the opportunity for members to learn across disciplines and support a consistent approach to asset management (please refer to recommendation #8 in Appendix 1).

Technology: Systems and data

Interviews and observations during our fieldwork walkthroughs indicated that Parks currently utilizes technology for asset management on a limited scale. Parks utilizes the TMA and TSE systems to track work orders and attendance; otherwise technology use is limited to electronic spreadsheets and word processing documents. The incorporation of information systems and other technologies in all aspects of Parks' operations can act as a workforce multiplier by minimizing efforts related to repetitive and duplicate data entry and facilitating the analysis of metrics such as cost of operations and service delivery.

At the time of the project fieldwork the following technology and data management tools were being used to facilitate asset management: TMA, TSE, Timberline and M5 (please refer to Appendix 4) as well as Excel spreadsheets. Through our interviews and review of documentation, we noted that Parks currently does not use all functionality of the TMA system, which includes asset management. Parks currently uses the TMA system primarily for scheduling and assigning work to staff.

The City is currently pursuing a new enterprise resource planning (ERP) system one advantage to including an asset management module is having one source of for all asset information that is also linked to the financial system. Eliminating spreadsheet inventory listings will minimize paper-based administration thus improving efficiency and reducing costs. If the new ERP system does include an asset

management module, then Parks as well as other business units will transition their asset inventory into the system. By having an ERP system with an asset management module, Parks would be able to eliminate the use of TMA, TSE, and Timberline as the ERP's asset management functionality would combine work order and cost recording activities with overall lifecycle management of assets. As the implementation of a new ERP is still likely several years following the time of this report, Parks will need to consider solutions that are readily available in the meantime, such as the ESRI program outlined immediately below.

Through our document review and interviews we understand that Major Projects & Preservation currently supports asset management data maintenance for road assets and sidewalk assets through the use of SQL Server databases, which allow for various tables and queries to be run. The data is then read by a program called ESRI, which is a Mapping GIS program. ESRI displays the inventory in a block by block grouping and it includes a description of the assets within that block along with the condition of the assets. Major Projects & Preservation also use Excel as a tool to assist in the prioritization of work and the timing thereof, by using formulas based on triggers that identify the assets and/or blocks that require rehabilitation. Major Projects & Preservation do not currently use this technology for scheduling operating or maintenance work orders although it could be used for that function by Parks.

Major Projects & Preservation staff are working with Parks –Facilities to put its inventory in the SQL Server database to allow for improved tracking and maintenance. There is also currently an application being built that will use condition ratings and triggers to assist Parks – Facilities in planning maintenance work. That same database and application may also work for improved tracking and maintenance for Parks and Open Space Maintenance, although in order to do so additional funding would likely be required. For Parks and Open Space Maintenance to accomplish this they could either a) provide funding for the Major Projects & Preservation team to hire an FTE (temp/limited term, b) hire an FTE (temp/limited term) directly, or c) hire a consultant. Post-implementation, time would be needed to continue to maintain the system inventory, and supervisor time for each zone would be required to run reports and queries to facilitate planning of work. Please refer to recommendation #9 in Appendix 1.

Major Projects & Preservation management is currently working with Information Technology to host the SQL Server database on a secured server to allow staff from different business units to view/edit information as needed, as opposed to having it reside solely on the Major Projects & Preservation server. Moving to a secured server would be necessary for Parks to be able to access ESRI.

4.2 Asset Management Plans (AMP's)

Parks initial AMP[2], published in 2016, was focused on pathways, irrigation systems, and play structures. Not all assets within each asset class were included in the initial AMP in 2016, as the focus was to first capture the most significant assets within each category as a starting point. This AMP was first presented to the Standing Policy Committee on Planning, Development & Community Services in August 2016 and subsequently to City Council.

The 2017 Parks AMP[3], published in 2017, included updates on the assets from the 2016 AMP along with amenities[4], fencing, sports fields and courts, pools, and water features (most of which are in fact assets of Facilities). Irrigation Services reported no change in its asset replacement cost of $34.5 million from 2016 to 2017 (please refer to Table 2 on page 5). The exercise of creating the 2016 and 2017 Parks' AMP's was largely driven by the Administration's Finance division, and in order to create a better linkage between the Parks AMP and service level document(s), Parks will need to ensure that it has an active role in the next round of AMP exercises.

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[2] Building Better Parks: Asset Management Plan - August 15, 2016

[3] Building Better Parks: An Asset Management Plan for Parks - October 2017

[4] The amenities category includes benches, tables, bleachers, garbage cans, bike racks and tables that are located within City parks.

A full-scale, documented understanding of the condition of Parks' assets (including those assets within Parks' service areas but owned by Facilities) will assist Parks' (and Facilities) leadership in better understanding and managing the risk of asset failure, which in turn directly impacts service levels. By applying asset management principles, Parks' will be in a better position to support efficient delivery of services with assets that are well maintained and safe.

4.3 Inventory Listings

Through interviews and review of inventory listings, we observed that Parks needs to establish improved controls over the completeness, accuracy, reliability and validity of their asset information and data (please refer to recommendation #9 in Appendix 1 for a summary of the recommendations stemming from the observations/findings within Section 4.3).

Vehicles and equipment

Parks owns an inventory of vehicles and equipment that is necessary to maintain parks and open space areas. We obtained a copy of the Excel spreadsheet listing of vehicles and equipment assets from November 2017 which indicated the total replacement cost of these assets to be approximately $9.15 million. While the value of Parks' vehicle and equipment assets are not a significant percentage of Parks' overall asset value, the vehicle and equipment assets are vital to the delivery of Parks' program activities and service level targets.

As noted in Section 3, Fleet Services has responsibility to repair and maintain vehicles and equipment inventory for Parks. Fleet Services is also responsible for procuring new pieces of inventory or replacement units, with the funding for these purchases being provided from Parks' budget. In recent years, Parks provided an asset listing spreadsheet of the vehicles and equipment that Fleet Services maintains, and this data was imported into Fleet Services' M5 system. There is a risk that existing data in M5 is erroneous due to the migration of incorrect data into the M5 system. A physical inventory count has not been performed to validate and update the M5 system; an inventory count of these assets would allow Parks to confirm on a periodic basis the asset quantity, condition and storage location of all equipment and machinery in use. In addition, while Fleet Services maintains a listing of Parks' vehicles and equipment in the M5 system, there is no tracking of repairs and maintenance information.

At the start of the season an inventory checklist is provided to Supervisors for their staff to use in verifying inventory on hand, and to note any missing items or items that require repairs. Based on the current process in place, there is not a method of verifying whether all counts were actually performed by staff at the start of the 2018 season or that all completed checklists were provided to Finance to follow-up on and, if need be, make adjustments to the inventory records for Parks. Our understanding is that Parks staff typically utilize the checklist to highlight anomalies as opposed to a full "positive confirmation" of the inventory. Parks Supervisors typically will communicate with Finance staff regarding inventory items that do not agree to the checklist (i.e. new additions or missing pieces). Finance does not have a formal process to collect all completed checklists to ensure completeness of the inventory count process, and for the 2018 pre-season count Finance was only able to provide physical evidence of one completed checklist.

Parks and Open Space Maintenance

Inventory information is currently maintained in an Excel spreadsheet, with minimal controls and no version management process. The spreadsheet is not integrated into the TMA system, which prevents metrics regarding effectiveness of equipment from being generated in TMA. Due to the lack of formal controls regarding this spreadsheet, there is a risk that the listing of Parks and Open Space inventory may not be complete or accurate. Also, due to the current processes in place, changes or additions of assets to the Parks portfolio may not be properly communicated to the staff member responsible for the maintenance of the inventory listing spreadsheet; for example if Facilities makes changes to amenities or

when a new park is turned over to the City from a developer. We understand that there is currently intent at Parks to transition the spreadsheet's contents to a Microsoft Access database application. This would assist in maintaining the integrity of the data in a format that can be accessed by multiple simultaneous users. Whether Parks uses Excel or Access as its means of storage of data, data loss protection and prevention controls are needed to ensure the integrity of the data.

All assets related to the irrigation system are maintained in an Excel spreadsheet, with minimal controls and no version management process. A separate spreadsheet is maintained with the estimated age of the irrigation assets based on the age of each park where the assets are installed. These spreadsheets are maintained by the same Parks staff that maintain the listing for Parks and Open Space Maintenance. An additional spreadsheet is maintained by the Irrigation Supervisor that indicates which systems should be prioritized for replacement, based on a set criteria.

Please refer to recommendation #9 in Appendix 1 for a summary of the recommendations stemming from the observations/findings within Section 4.3.

5. New Parks

As part of the City's Official Community Plan Bylaw No. 8769, and in conjunction with the Planning and Development Act (2007), there is a responsibility of developers to ensure that all park plans and designs comply with the Park Development Guidelines and Standard Construction Specifications.

As part of the development process, extra amenities may be considered for new parks in order to help persuade homeowners to move to a newly developed area. There is a design review process as part of the park development process to ensure that this is controlled. As part of this process, a review and comparison of amenity levels against City design standards occurs to ensure that during the takeover process, additional resources would not have to be expended to either maintain additional amenities or to remove amenities that exceed park development standards.

Once construction on a new park is completed, the developer will receive a certificate indicating that the new park meets standards. Following this, the first year of maintenance is performed and paid for by the developer. After the one year establishment period, the developers are no longer responsible for the maintenance of the park and its amenities. The responsibility for maintenance is then turned over to the City. There is a risk of the City underestimating the operating cost impact of new parks when they are transitioned from developers. One factor that can increase the operating cost impact of new parks is drainage issues that can arise post-development, which can lead to rework being required to the drainage system in place. There is currently a bylaw relating to drainage, however it does not mitigate this risk. In the case that new parks, at the time of transfer of ownership to the City, were to not meet design specifications, there are no formal documented procedures that would hold developers accountable for not adhering to City standards (please refer to recommendation #10 in Appendix 1).

5.1   Operating Impact

An Excel spreadsheet is used to capture and calculate the operating impact of a new park based on its size and amenities. This operating impact has historically been calculated on an annual basis for purposes of the budget request process. The figures used for operating impact calculations in our sample, as described below, were based on a rolling average of the previous three years. A risk exists that the calculation may underestimate the actual costs due to the calculation being based on historical information. Although staff do have an opportunity for manual override if they determine that the figure rendered by the calculation is misrepresentative of potential actual cost, an annual review of all rolling averages would reduce the risk of underestimating the budget request.

As the City is moving towards multi-year budgeting, Parks will then be using the calculated operating impact to estimate the maintenance budget for up to a 4-year period. An annual review and re-calculation will be important when moving to a multi-year budget request as by the third or fourth year of the budget cycle, the costs may be outdated and underfunding may result in an inability to maintain parks to service level expectations (please refer to recommendation #11 in Appendix 1).

5.2 Methodology

In order to assess the degree of risk related to underestimating operating impacts for new parks, and the subsequent impact that this may have on the cost of service delivery, we followed a three-step approach:

1) Observed supporting documentation for three different services/amenities to validate unit costs;
2) Selected 3 parks that were turned over to the City by developers in 2017 to determine if the parks were developed to a level that exceeds City design standards for the amenities selected in 1); and

3) For the 3 selected parks, validated that the park was added to the inventory listing and that amenities and unit costs are consistent with the original developer information (i.e. drawings).

5.3 Results

We obtained the operating impact calculations for the selected new parks, which calculates the operating impact of the new park by multiplying the level of amenities by the cost per unit for each amenity. These costs per unit are based on a combination of historical costing and standard costing. We validated unit costs by selecting 4 different amenity criteria and inspecting the related supporting documentation from the Timberline system. The selected amenities and results for 2017 are detailed in Table 3 below.

Table 3 - Selected Amenity Criteria

Amenity/Activity	Cost/Unit	Source
Shrub Bed Maintenance	$2.78	3 year rolling average consisting of labour, equipment and miscellaneous costs over the total area (sq. m.)
Tree Maintenance	$7.34	3 year rolling average consisting of labour, equipment and miscellaneous costs over the total number of trees
Turf Maintenance - Irrigated	$6,198.68	Total staff hours required per season per hectare of irrigated turf
Garbage / Trash Can Emptying	$458.88	Total hourly rate of staff and equipment over an estimated 61 cans per day occurring 70 times per year (once per week during the winter and twice per week in the summer)

We noted that a mix of standard and historical costing is applied to the amenities in order to determine the operating impact of the new parks. These cost values are consistently applied to both existing and newly developed parks. This represents a risk in that it implies that new and old parks will be equivalent in their public usage, whereas for example new parks may get more foot traffic leading to more garbage that would need to be emptied. This would mean that, for example, the cost per unit for trash removal would be greater for some parks than for others. Monitoring and calculating the financial variances would allow for a better reflection of costs per individual park and of the correlation between the age of the park and the level of maintenance that is required. This risk leads to the implication that the application of the average cost to a new park would underestimate the costs relating to services and amenities provided, leading to an undervalued budget requested for the year. This risk can be combated by ensuring that the applied cost is relevant, up to a certain threshold, to a newly developed park.

We then selected three different parks that had been transitioned from developers to the City in 2017 to determine whether amenities were greater than the development standards (draft *Landscape Design and Development Standards*) established by the City. We validated the same amenities for the new parks as those indicated in Table 3 above. Table 4 provides a summary of the three selected parks and the level of the amenities in these parks, based on the data within the operating impact calculations. Tables 5 to 7 on the next page compare the operating impact information of each new park to the equivalent design and development standard.

Table 4 - Summary of amenities, units and costs for sampled new parks and open space

| Selected Parks | Per Operating Budget Impact Report | | | | | | | |
| | Turf - Irrigated | | Shrub - Mntce | | Tree - Mntce | | Garbage/Trash | |
	Cost/unit	Units	Cost	Units	Cost	Units	Cost	Units
Donald Koyl	$ 6,198.68	0.40	$ 3.35	480	$ 7.34	26	$ 458.88	2.00
Bev Dyck	$ 6,198.68	1.00	$ 3.35	1,000	$ 7.34	90	$ 458.88	4.00
Rosewood Gate/Island	$ 6,198.68	0.00	$ 3.35	630	$ 7.34	32	$ 458.88	0.00

Table 5 - Donald Koyl Park (Park Type - Pocket Park)

Amenity/Activity	Units Per Operating Impact	Units Per Original Source	Minimum/Maximum per Development Standards[1]	Standards Met/Not Met
Turf - Irrigated	0.40	0.40	100% of landscaped area	Met
Shrub - Maintenance	480	480	2-5% of landscaped area	Met
Tree - Maintenance	26	26	80-100/hectare	Met
Garbage Receptacles	2	2	6/hectare	Met

Table 6 - Bev Dyck Park (Park Type - Linear Park)

Amenity/Activity	Units Per Operating Impact	Units Per Original Source	Minimum/Maximum per Development Standards[1]	Standards Met/Not Met
Turf - Irrigated	1.00	1.00	N/A	N/A
Shrub - Maintenance	1,000	1001	3% maintained landscape area	Met
Tree - Maintenance	90	90	40-80/hectare	Met
Garbage Receptacles	4	4	2/hectare	Met

Table 7 - Rosewood Gate Park (Park Type - Streetscape)

Amenity/Activity	Units Per Operating Impact	Units Per Original Source	Minimum/Maximum per Development Standards[1]	Standards Met/Not Met
Turf - Irrigated	0	0	N/A	N/A
Shrub - Maintenance	630	630	N/A	N/A
Tree - Maintenance	32	32	N/A	N/A
Garbage Receptacles	0	0	N/A	N/A

[1] N/A indicates that the draft Landscape Design and Development Standards does not have a specific standard for that service/amenity for that particular park type.

5.4 Conclusion

The results indicate that there is little variance between operating impact documents used to determine the required budget and original specifications. Depending on the type of park, maximum allowed units of each amenity were used. For parks selected we noted no breach of development standard requirements.

Appendix 1: Recommendations

Section reference	Recommendations
3. Service levels	1. Parks should develop a set of key performance indicators (KPIs) against which it assesses its performance relative to existing service level targets and customer performance measures. Potential types of indicators that Parks could be mindful of as it develops its KPIs are service quality (citizen satisfaction measured by survey responses), operating cost (per capita measure of operating cost on a per resident and/or per park basis), and other KPIs which could be set to measure productivity of staff (operators) relative to the expected level of effort to deliver services and the actual effort (measured in time) taken to deliver the services.
	2. Parks should review and correct data input procedures for jobs, costs, and revenues to ensure they are appropriate and sufficiently capture accurate information needed to monitor progress against KPIs and budgets. More specifically, a) communicate to staff the need to use appropriate activity coding in time sheets and implement a monitoring process to ensure time is coded to the appropriate activity code; b) determine the level of detail required to be recorded in Timberline and TMA to provide meaningful reports and establish a monitoring process to ensure staff are consistently entering all the required details; c) implement a formal monthly reconciliation between the Timberline system and the general ledger; and d) enter all work activities into TMA (including special/unplanned work, for example to address citizen complaints) in order to capture the full effort and cost of service delivery. --- 3. Parks should establish and document a formal procedure for tracking, monitoring and reporting on progress against KPIs during the year and as part of an annual review process. For tracking and monitoring, consideration should be given to how the measure will be tracked and who will track it (i.e. Parks or Finance), who will monitor progress against the KPI, who will receive the information once tracked, and what actions should be taken based on the tracked information. b) For reporting on performance, consideration should be given to how often the reporting should occur and to whom, the inclusion of explanations for significant variation between targets and actuals (with potential corrective action plans if necessary), and the style of reporting to clearly illustrate trends from year-to-year.
	4. Parks should perform a thorough review of its inventory to ensure that the proper equipment (and the proper quantities of each type of equipment) is in place and that proper consideration be given to removing underutilized and less essential equipment in exchange for more essential, currently overutilized equipment.
	5. Parks should implement a process to monitor irrigation trouble reports to determine if they are addressed within 48 hours. Also, Parks should implement a process to re-prioritize other work, where needed and when possible, in order to

ensure that the 48 hour target for responding to irrigation trouble reports is consistently met.

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6. Parks should coordinate with Fleet Services to implement the use a formal work order system for the repair and maintenance process, with some central oversight, in order that the risk of negative service delivery resulting from delays and improper prioritization of repair and maintenance activities is minimized.

4. Asset management	7. Parks should further define its own requirements for maintaining and supporting asset management within Parks, from both a human capital and technology perspective, in order to position itself to implement and support corporate asset management practices. In particular, non-park open landscape areas that are included in Parks' AMP need to be better identified for asset management planning.
	8. The Administration should work across operating divisions, including and starting with Parks, to establish a cross-functional working group for asset management. This would ensure coordination between corporate asset management activities and those taking place within individual functional areas. Given the significance of the assets being managed within Parks, it would be a logical starting point for the cross-functional working group and once established could be implemented in other areas of the organization.
	9. Parks should establish controls over the completeness, accuracy, reliability and validity of their asset information and data. As a starting point, there are three specific items that would represent positive significant developments on this front: a) Parks, in coordination with Fleet Services, should perform a physical inventory count of Parks' vehicles and equipment in order to update/validate the current data in the M5 system. Going forward, Parks should coordinate with Fleet Services to confirm on a period basis the quantity, condition and storage location of its equipment and vehicles. b) Parks, in coordination with Fleet Services, should implement a process for having all information regarding repairs and maintenance (both cost of time and parts) recorded in the M5 system for each individual asset as repair and maintenance work is performed on that asset. c) Whether Parks uses Excel or Access to record and maintain the Parks and Open Space inventory listing, data loss prevention and protection controls need to be implemented to ensure the integrity of the data. For example, there should be password requirements to prevent users without a business need from accessing the listing and a backup process should exist to protect the accidental loss of data. d) Parks, in coordination with Finance, should implement a method of verifying whether all counts are actually performed by staff at the start of the season and that all completed checklists are provided to Finance. e) Parks, in coordination with Major Projects & Preservation, should consider transitioning data into the SQL Server/ESRI system currently being utilized by Major Projects & Preservation, which will allow for a more reliable tracking mechanism until such time as asset management improvements can be considered from the new forthcoming ERP system.

5. New parks

10. Parks should develop a process to escalate and obtain approval of development of new parks that exceed the newly approved Landscape Design and Development Standards. This would assist in holding developers accountable for adhering to existing City standards and reduce the risk of Parks incurring cost overruns to maintain required service delivery standards at new parks once they are transitioned to Parks from the developers.

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11. Parks' operating impact calculations have historically been calculated on an annual basis, using a three-year rolling average, for purposes of the budget request process. A risk exists that this calculation may underestimate the actual costs in a given year due to the basis for the calculation being historical information. Parks' has an opportunity for manual override if it is determined that the figure rendered by the calculation is misrepresentative of potential actual cost, however an annual review of all rolling averages for appropriateness would reduce the risk of underestimating the budget request (particularly for new parks which typically have higher costs in their first years). This annual review and re-calculation becomes particularly important to Parks' ability to maintain parks to service level expectations as the City moves toward multi-year budgeting.

Appendix 2: Parks Asset Management Plan and Service Level Reports

Asset Management		
Building Better Parks: An Asset Management Plan for Parks - Attachment 3	October 2017	https://www.saskatoon.ca/sites/default/files/documents/asset-financial-management/corp_asset_mgmt_plan_better_parks.pdf
Building Better Parks: An Asset Management Plan for Parks - Attachment 1	July 2016	https://apps2.saskatoon.ca/tpapp/eamm_public/filestream.ashx?DocumentId=16880
Corporate Asset Management Plan - information on the strategy for implementing the Corporate Asset Management Plan	February 2016	https://www.saskatoon.ca/sites/default/files/documents/asset-financial-management/finance-supply/admin_report_-_corporate_asset_management_plan.pdf
Service Level		
Park Maintenance and Design - Service Level presented to Standing Policy Committee on Planning, Development and Community Services	October 2017	https://apps2.saskatoon.ca/tpapp/eamm_public/filestream.ashx?DocumentId=39240 https://apps2.saskatoon.ca/tpapp/eamm_public/filestream.ashx?DocumentId=39241
Other Matters		
Strategic Plan 2013-2023		https://www.saskatoon.ca/sites/default/files/documents/transportation-utilities/transportation/active-transportation/city_of_saskatoon_strategic_plan_2013-2023.pdf

Appendix 3: Interviewees List

Name	Division	Title
Darren Crilly	Parks	Director, Parks
Gerald Rees	Parks	Superintendent, Parks Maintenance
Dave Hutchings	Parks	Superintendent, Parks Maintenance
Sharon Leach	Parks	Superintendent, Parks Maintenance
Dominic Santoro	Parks	Supervisor, Parks Maintenance
Ian Tracksell	Parks	Supervisor, Sports Fields
Dan Jean	Parks	Supervisor, Irrigation
Patrick Turner	Parks	Irrigation Tech, Irrigation
Dave Hyshka	Parks	Supervisor, Parks Maintenance
Joe Laturnus	Parks	Supervisor, Parks Maintenance
Judy Krause	Parks	GIS Design Analyst
Barb Giocoli	Parks	Landscape Architectural Technologist
Clae Hack	Finance	Director, Finance
Teresa Quon	Finance	Director of Business Administration, Finance
Andrea Campbell	Finance	Accounting Coordinator, Finance
Kevin Yee	Finance	Staff Accountant, Finance
Tanya Bell	Employee Experience and Performance	Performance Improvement Coordinator
Jason Kennon	Fleet Services	Manager, Fleet Services
Jason Busby	Fleet Services	Parks Mechanic Supervisor
Rob Frank	Major Projects & Asset Preservation	Engineering Manager, Asset Management

Appendix 4: Parks' Systems

Name of System	Purpose/Usage
TMA	This system is an operational work order management system that allows Parks to enter work order schedules at the beginning of the season along with assigned dates of completion for work orders. These are assigned and allocated to operators to complete and can be monitored by Supervisors. Integrated with TSE and Timberline systems but not integrated with asset inventory listings.
TSE	Timesheet entry system used by employees to enter and track time worked. Employees can indicate in the system which job their charged time relates to.
Timberline	Cost management system used by Parks. Modules that relate to Parks' activities include equipment, payroll, job costing, and reporting. Fully integrated into financial reporting process of Parks.
M5	Fleet management software used to track fleet equipment and vehicles. M5 has the capability to provide the technology and tools to manage every aspect of fleet inventory throughout the life of an asset - from cradle to grave.