

Service Level for Park Maintenance and Design

Scope

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

Service Overview - what we do

The Park Maintenance and Design service line funds 6 programs:

- Park and Open Space Maintenance;
- Sport Field Maintenance;
- Irrigation Services;
- Naturalized Area Management;
- Park Design Services; and
- Civic Conservatory and Greenhouse.

Park and open space maintenance provides maintenance services to over 1,000 ha. of park space and 1,000 ha. of open spaces which includes transportation rights-of-way, medians, boulevards and roundabouts, municipal buffers and facility green spaces. These maintenance services include a variety of activities applied to different service levels depending on the use and classification of the asset classes to which they are applied. Through this program parks and open spaces have turf areas mowed and trimmed, shrub and flower beds planted and maintained, garbage is removed and litter is picked up, pathways are maintained and cleared and cross country ski trails are groomed.

Sport field maintenance provides the staff, equipment and resources to maintain 103 charge sport fields (Class 1, 2 and 3) which receive enhanced service levels to support higher levels of sporting competition. These enhanced service levels are funded by the fee for service agreements that are charged to the various user groups. This program also includes winter snow removal from city owned parking lots, park roadways and arenas as well as management of contracted freeway/expressway mowing services.

Irrigation services provides water to green park infrastructure that includes turf, trees, shrubs and annual/perennial plants. This program is responsible for compliance with municipal water bylaw backflow inspection requirements and ground disturbance locates.

Naturalized area management provides maintenance services to the portion of parks inventory classed as naturalized and natural. Naturalized areas are areas that have previously been disturbed and are constructed to simulate natural areas. Naturalized parks represent a variety of habitats in Saskatoon from native prairie to wetlands and aspen parkland. Natural areas are those parks spaces that have not been previously disturbed and exist in their original state.

Park design provides services for the planning, design and development of public lands, including parks and playgrounds and open space. The core areas of responsibility include planning, estimating and the administration of capital budgets, conceptual and detailed design, project management, internal and public consultation, development and implementation of landscape development and design construction standards and the collection and maintenance of “as-built” data and drawings.

The Civic Conservatory and greenhouse provide and maintain floral displays for public enjoyment and landscape enhancement at the Civic Conservatory, City Hall and other civic facilities as well as major public roadways, parks and open spaces. This program provides the 1,055 flower pots located throughout the BID areas and along major transportation corridors.

Purpose - why we do it

Park maintenance and design services exist to develop, preserve and enhance the City of Saskatoon’s investment of its parks system and civic open spaces. These areas are managed to provide meaningful and accessible opportunities for citizens to participate in a diverse range of passive and active year round outdoor recreational activities in healthy, aesthetically pleasing built and natural environments.



Programs within Service Line	Service Attributes and Customer Values	Service Level Outcomes	Customer Performance Measures
<p>Park and Open Space Maintenance</p>	<p>Quality of Life, Safety, Accessibility Aesthetics, Environmental Responsibility, Responsiveness</p>	<p>Parks are visibly clean and aesthetically pleasing year round, turf conditions provide safe areas for neighbourhood recreation, sport and special events.</p>	<p>Mowing occurs on a scheduled basis during the 18 week active growing season from May 15th to September 15th annually. Frequency of mowing is based on irrigation status, intended use and available resources. Municipal Reserve lands are mowed on the following frequency:</p> <ul style="list-style-type: none"> • Irrigated parks – up to 18 times/season • Non irrigated parks and sport fields – 9 times times/season • Roadway ditches, center medians and other right-of-way's – 4-5 times/season • Berms – 3 times/season <p>Contracted maintenance is provided to the Circle Drive Corridor with the requirement that it is fully mowed twice per season. Highway connectors are mowed once per season to the city limits.</p> <p>Areas that are NOT mowed include front boulevards, alleys, back lanes and slopes that exceed a 3:1 gradient.</p> <p>Irrigated and non-irrigated parks may be fertilized and aerated once per season.</p> <p>Litter pickups and line trimming occur in conjunction with mowing schedules in the summer season.</p> <p>Waste collection frequency varies between summer and winter season based on staff availability and historical usage patterns. From May 1st to October 15th waste is collected at a minimum of once per week</p>

Programs within Service Line	Service Attributes and Customer Values	Service Level Outcomes	Customer Performance Measures
			<p>from receptacles. From October 15th to May 1st collection schedules can be stretched to as long as once every three weeks.</p> <p>Shrub beds receive maintenance services on a frequency determined by a tier system.</p> <ul style="list-style-type: none"> • 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-way's and wetlands <p>Plants are not replaced in Tier 3 shrub beds.</p> <p>Parks Division maintained sidewalks adjacent to parks are cleared within 48 hours of snowfall ending in accordance with Bylaw No. 8463 The Sidewalk Clearing Bylaw.</p> <p>To provide park accessibility in winter all lighted park pathways and a portion of the unlighted pathways are cleared with a goal of within 48hrs to match Bylaw 8463 The Sidewalk Clearing Bylaw.</p> <p>Crusher Dust Pathways are not cleared in non-naturalized parks.</p>

Programs within Service Line	Service Attributes and Customer Values	Service Level Outcomes	Customer Performance Measures
			<p>Onsite meetings are held for park access requests when the event is new or is very large. When damages are discovered, they are investigated and attempts are made to recover restoration costs.</p>
<p>Sport Field Maintenance</p>	<p>Quality, Safety, Accessibility, Responsiveness, Reliability</p>	<p>A variety of sport fields are available for recreational use. They are well groomed to meet their intended recreational use. Fields meet the programming needs of user groups at time of use.</p>	<p>Irrigated sport fields are mowed 18 times per season. Additional mows that may double that frequency for charge sport fields are paid for by user group fees. Safety checks are performed at the same time as infield grooming is done. Class 1 fields are checked and groomed daily during the allocation season. Class 2 fields are done 3 times a week and Class 3 are done 2 times a week.</p> <p>All sport fields are measured once in spring and lines are painted twice a year, once in spring and again in late summer/early fall. Any additional line painting requested by user groups is performed on a cost recovery basis.</p> <p>All charged fields are top-dressed and over-seeded in fall.</p> <p>Irrigated charge sport fields are fertilized 2 times per season and aerified a minimum of 2 times per season. They are re-seeded once every four years. Sod may be replaced around goal posts as necessary.</p> <p>Snow is removed as needed from city owned parking lots, park roadways and arenas throughout the winter.</p>

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<p>Irrigation Services</p>	<p>Quality, Safety, Reliability, Aesthetics, Environmental Responsibility</p>	<p>Irrigation ensures that turf areas are healthy and lush which maintains the green appearance and functionality of the space.</p> <p>Streetscapes and boulevards are irrigated to maintain trees, shrubs and other planting beds and provide water access points for flower pot and planting bed watering and street cleaning.</p>	<p>Irrigation systems begin activation in late April. Activation and service of all park and streetscape systems targeted for June 1st completion.</p> <p>All charge sport field infield watering outlets are activated and tested by May 1st to mitigate dust for user groups in advance of general turf watering.</p> <p>All community gardens and other areas under establishment receive water between May 15th and June 1st. Irrigation services are shut off September 1st with the exception of sport fields which continue to be irrigated as long as they are allocated. The system winterization target date is October 15th +/- a week for the entire system.</p> <p>Class 1 and 2 sport fields receive 38mm of water/week, all other irrigated turf areas receive 25mm/week. This water delivery target is a combination of precipitation and irrigation service.</p> <p>Class 1 and 2 sport fields may receive additional irrigation service that is cost recovered through user fees.</p> <p>Backflow prevention testing and required repairs to approximately 400 double check valve assemblies are done annually by licensed irrigation staff.</p> <p>Irrigation trouble reports are investigated within 48 hours from time of receipt. Any other</p>

Programs within Service Line	Service Attributes and Customer Values	Service Level Outcomes	Customer Performance Measures
			<p>safety related, or property flooding concerns are addressed immediately.</p> <p>24 hour on call coverage is provided in the irrigation section to address any after-hours emergencies.</p> <p>Line locating is done and marked for all special events and utility excavations within parks and other irrigated spaces like streetscapes. Every allocated event plus utility excavation are recorded and located in field by irrigation staff.</p>
<p>Naturalized Area Management</p>	<p>Quality, Environmental Responsibility, Accessibility</p>	<p>Naturalized areas are managed from turnover through establishment to sustainment. They accommodate passive recreation opportunities and connect our citizens with nature and natural history. They provide habitat for native species in our urban landscape and increase the biodiversity in park and open spaces.</p>	<p>Pathway flanks and park perimeters are mowed up to 9 times a season.</p> <p>Shrub beds in Naturalized Parks are serviced 1-2 times a season. Shrubs may be replaced as required.</p> <p>Waste collection frequency varies between summer and winter season based on staff availability and historical usage patterns. From May 1st to October 15th waste is collected once per week. From October 15th to May 1st collection schedules can be stretched to as long as once every three weeks.</p> <p>Litter is picked up in barbeque areas and in parking lots daily June 1st to September 15th.</p> <p>Gravel is replenished on pathways and parking lots annually.</p>

Programs within Service Line	Service Attributes and Customer Values	Service Level Outcomes	Customer Performance Measures
			<p>Parks are visually inspected for weeds and managed on an ongoing basis focusing on noxious weeds.</p> <p>Parks Division maintained sidewalks adjacent to parks are cleared within 48 hours of snowfall ending in accordance with Bylaw No. 8463 The Sidewalk Clearing Bylaw.</p> <p>All lighted pathways and approved 14 km of crusher dust pathway is cleared with a goal to match the Sidewalk Clearing Bylaw.</p>
<p>Park Design Services</p>	<p>Quality, Accessibility, Safety, Responsiveness</p>	<p>Parks Design follows four main principles in the work that they do:</p> <ul style="list-style-type: none"> • Design with a Goal of Sustainable Community; • Design with Consideration to Local Climate and Season; • Design with the Goal of a Safe Community; and • Design for accessibility. <p>The design and installation of play spaces and equipment will comply with CSA Z614.14 or the most current version.</p> <p>When engineered wood is used as play surfacing material it must meet the requirements of ASTM F1292-13.</p> <p>All applicable municipal, provincial and federal OHS laws and regulations must be followed by city employees and contractors at all times.</p> <p>CPTED principles are applied when designing new park</p>	<p>Park Design Specifications are reviewed, updated and published annually and follow industry best practices.</p>

Programs within Service Line	Service Attributes and Customer Values	Service Level Outcomes	Customer Performance Measures
		<p>spaces and when redesigning existing.</p> <p>Parks will strive for an overall environment which is accessible and provides a fulfilling recreational experience for all users.</p>	
<p>Civic Conservatory and Greenhouse</p>	<p>Quality of Life, Accessibility, Aesthetics,</p>	<p>Healthy, floral displays enhance citizens enjoyment and add to their quality of life when they are moving through the city, using park and other outdoor spaces and attending events and festivals that are a critical component of our seasonal activity here in Saskatoon.</p> <p>Plants are selected and propagated for the flower pot program that will grow quickly to maximize the citizen experience while the pots are on display.</p> <p>Flower pot displays are planned annually to use a variety of plants with new stock introduced each year to continue to delight our citizens. Maintenance considerations are taken into account when planning displays.</p>	<p>BID pots are installed by the last Sunday in May, centre median pots are installed the following Sunday.</p> <p>Pots in BID areas are maintained by the BIDs, all other pots are maintained by Parks Division.</p> <p>All pots are removed from streetscapes by the 3rd weekend in September.</p> <p>Pots are well maintained, plants are healthy and add visual interest throughout the city.</p> <p>The Civic conservatory is open 364 days a year, admission is free.</p> <p>Colorful, informative conservatory displays are rotated through 12 themes on an annual basis.</p> <p>Plants are healthy and well cared for, the conservatory is clean and safe for visitors and staff alike.</p>

Resource Allocation – what does it cost

The total cost of service line:

Service Line	Number of Programs	2017 Budgeted Cost to Deliver Service	2017 Forecasted Cost to Deliver Service	Variance Forecast in 2017
Park Maintenance and Design	6	\$13,418,000	\$13,818,000	\$(400,000)

Based on 2017 projections, the costs to provide the six programs in this service line (and capital contributions) are:

Service Activity	2017 Budgeted Cost per Program	2017 Forecasted Cost per Program	Variance Forecast in 2017	Cost per Unit based on 2017 Forecast
Park and Open Space Maintenance	\$6,771,000	\$6,976,000	\$(205,000)	\$52.08 per citizen \$6,549 per hectare
Sport Field Maintenance	\$1,561,000	\$1,576,000	\$(15,000)	
Irrigation Services	\$3,125,000	\$3,245,000	\$(120,000)	
Naturalized Area Management	\$406,000	\$426,000	\$(20,000)	
Park Design Services	\$207,000	\$207,000	\$(0)	
Civic Conservatory and Greenhouse	\$385,000	\$425,000	(\$40,000)	
Transfers to Capital Reserve	\$963,000	\$963,000	\$0	

*Units used are 2,110 hectares from the 2017 Municipal Manual and a population estimate from Planning and Development of 265,300 for December 2016.

In comparison with 11 other municipalities from across Canada in the MBNCanada 2015 Report the average “Cost to Operate Parklands” is \$11,252 per hectare which includes maintained and natural parkland. The lowest operating cost per hectare is \$4,117 in London and the highest is \$23,240 in Toronto. When measured on a per capita basis for maintained parkland only, the average is \$68.21 per resident with a high in Thunder Bay of \$100.16 and a low in London of \$28.58. The discrepancy in total

costs between the City and those reporting in MBNCanada may be attributed in part to the make-up of costs included in the measure as well as differences in classification of municipal lands. MBNCanada costs include a number of support services costs that are not included in our unit costing methodology at this time.

Financial Assumptions

- Parks Administration (CC 01-450) costs are attributed to the Corporate Support Business Line and not allocated here.
- Parks Division Training (CC 01-472) costs are allocated wholly to the Park Maintenance and Design service line although some of the resources may be used by other service lines within the Division.
- Transfer to Parks Capital Reserves (CC 01-141) is included in the budget and forecast totals and unit cost calculation but has not been allocated to the programs.
- Due to the drought conditions experienced in 2017, \$196,000 from the Parks Division Grounds Maintenance Stabilization Reserve is applied to the 2017 forecast costs for the Irrigation program, as it is based on an estimate of water costs for this year it may increase or decrease once final billing is received..
- Growth in inventory is generally one to two years behind, as new park and open space maintenance does not immediately become the responsibility of Parks in developing neighbourhoods.

Supporting Information



The frequency that regular care and maintenance services are delivered in our Park and Open Spaces have a profound effect on their appearance, functionality and longevity. The optimum level of maintenance for each space can vary depending a number of factors such as location, sun exposure, subsurface soils and drainage patterns, amount of rainfall, pedestrian traffic volumes, frequency of intensive use for special events and sporting activities and other intended and unintended uses.

The maintenance of trees and parks in the Annual Civic Services Survey has scored between 6.9 and 7.3 since 2013 with a small positive trend in satisfaction, indicating a general high level of satisfaction with current service levels.

Constraints

Bylaws and Policies that dictate a required level of service and/or amenities:

- Park Development Guidelines A10-017;
- The Sidewalk Clearing Bylaw No. 8463; and
- The Waterworks Bylaw No. 7567.

Risk factors that may impact the City's ability to deliver the services as described above include:

- Weather and climate change impacts;
- Annual precipitation levels;
- Open space design that does not pro-actively consider long-term maintenance cost;
- The amount and types of inventory added each year; and
- The availability of labour and equipment.

Supporting References

- Anti-dumping Bylaw No. 5713;
- The Recreational Facilities and Park Usage Bylaw No. 7767;
- Wetland Policy C09-041; and
- The Drainage Bylaw No. 8379.

Current Service Levels:

The table below provides current service levels and associated costs. All costing information presented is based on data from the current year (2017). Proposed 2018 cost reductions are also shown:

No.	Current Service Level Option	Change in Service Level	Service Line Budget 2017	Est. Annual Cost	Overall Funding Result
1	Status Quo	<ul style="list-style-type: none"> • No change to Service Level • Additional funds are required to maintain current service level; more staff required to meet expectations. • Staff continue work to identify specific improvements and efficiencies. 	\$13,418,000	\$13,818,000	Potentially up to \$400,000 required to meet current service level.

No.	Current Service Level Option	Change in Service Level	Service Line Budget 2017	Est. Annual Cost	Overall Funding Result
2	Savings while maintaining current Service Level: Work to eliminate additional \$160,000 of annual expenses	<ul style="list-style-type: none"> Focus continuous Improvement efforts on the reduction of overtime utilization. Continuous improvement savings of \$120,000 due to new satellite maintenance buildings. 	\$13,418,000	\$13,658,000	Eliminate \$40,000 of current overtime by applying continuous improvement methods. Realize \$120,000 estimated savings from satellite maintenance buildings.

What Else is Possible?

Options to the Current Service Level for Park Maintenance and Design

No.	Service Level Options	Change in Service Level	Overall Funding Result
3	Reduce Service level: Eliminate side boulevard mowing (\$50,000)	<ul style="list-style-type: none"> Eliminate mowing of side boulevards Expectations for property owners will be consistent with front boulevards. This option would eliminate 2 seasonal park operator 1 positions. 	Decrease of \$50,000
4	Reduce Service Level: Eliminate centre median flower pots (\$50,000)	<ul style="list-style-type: none"> Eliminate the 256 flower pots deployed in centre medians. 734 flower pots in BID areas would remain. 65 reservoir pots located along the Transit Mall on 23rd Ave, at River Landing and along 22nd St. would remain. Cost include materials and deployment and end of season return costs. There is not a dedicated staff resource for this program. 	Decrease of \$50,000

No.	Service Level Options	Change in Service Level	Overall Funding Result
5	Reduce Service Level: Use less water in selected park turf areas (\$100,000)	<ul style="list-style-type: none"> Reduce water delivery target by 20% for all non-sport field park areas, these spaces currently receive 25mm/week, which would be reduced to 20mm/week No change to service charge fixed costs which comprise over 50% of irrigation costs, savings are in water usage fees only. 	Decrease of \$100,000
6	Increase Service Level: Improved turf cultural practices (+\$55,000)	<ul style="list-style-type: none"> Consistent annual application of fertilizer and other cultural turf practices like aeration and topdressing. Increased turf health and decreased levels of weed infestation will be visible. Requires 2 seasonal park operator 2 positions. 	Increase of \$55,000
7	Increase in Service Level: Weed surveillance and control in Natural Areas Management (+\$35,000)	<ul style="list-style-type: none"> Increase weed surveillance to a consistent scheduled frequency in Naturalized Park spaces to mitigate weeds before they become entrenched. Would require an additional 0.5 FTE Park Tech 9 position. 	Increase of \$35,000
8	Increase to Service Level: Park access additional resource (+\$33,000)	<ul style="list-style-type: none"> Shift the park access program from reactive based to proactive based. Dedicated resource will manage external and internal relationships with stakeholders such as developers, homeowners, landscape contractors and utilities. Increase the amount of restoration work done by the access requester or increase the costs recovered to do this work internally (savings of \$30,000). Increasing levels of year round special event park use requests could be managed by this position as the winter city strategy is implemented as well. Would require an additional 0.7 FTE Permanent Tech 12 (\$63,000) 	Increase of \$63,000 mitigated by \$30,000 in cost savings. Increase of \$33,000

No.	Service Level Options	Change in Service Level	Overall Funding Result
9	<p>Increase Service Level: Additional Mow of Grass adjacent to highway connectors</p>	<ul style="list-style-type: none"> • Double the frequency of mowing and litter pickups to the 140 ha. of highway connectors within city limits for an annual total of 2 mows and 4 litter picks in these areas. 	<p>Increase of \$65,000</p>