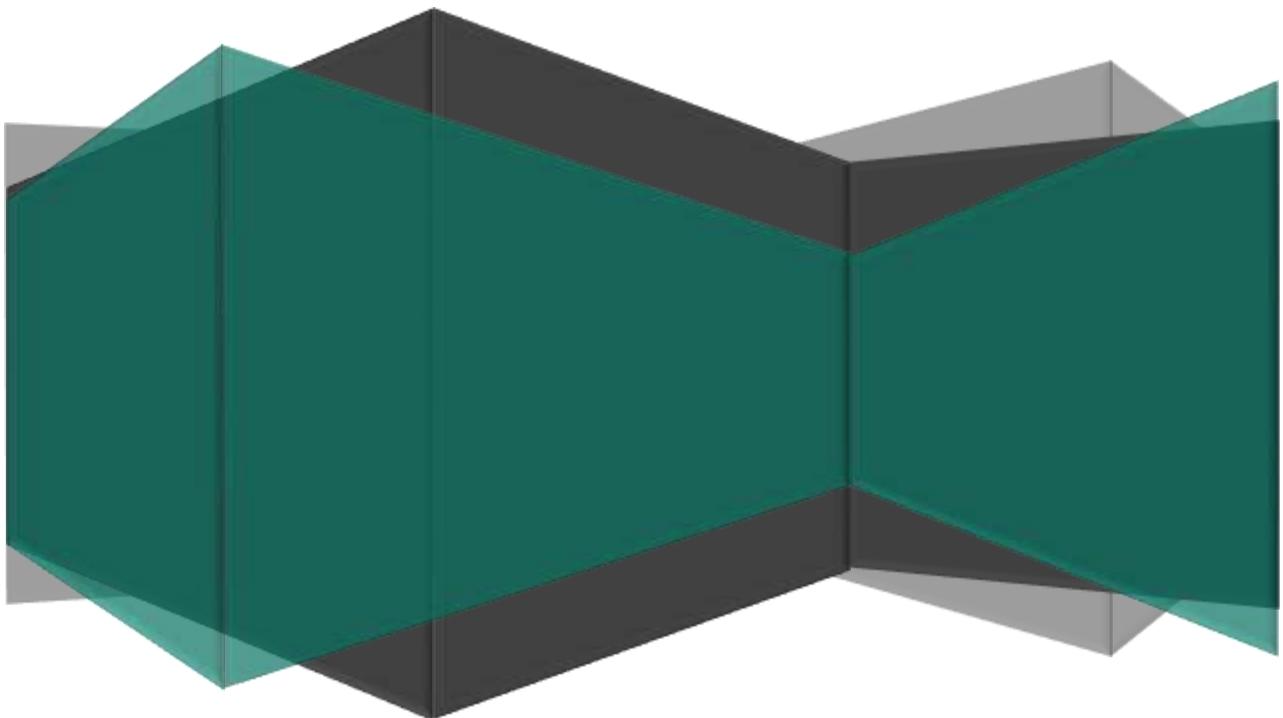


City of Saskatoon

Urban Forestry Civic Service Review

Executive Summary

June 2017



Urban Forestry CSR

INTRODUCTION

The Continuous Improvement (CI) Strategy was launched and approved by City Council in late 2013.

The CI Strategy has three main components:

- Annual Civic Service Reviews (CSR) are an operational review process to find ways to control expenditures and to seek efficiencies in the delivery of municipal programs and services
- Internal Process Reviews (IPR) are smaller in scale and focus on existing processes.
- Building capacity in the corporation through empowering employees to bring innovations and ideas forward and implement change within their work unit.

The CSRs and IPRs use a collaborative approach to bring together staff at all levels of the organization, usually from multiple divisions who play a role in the delivery of a particular program or service.

The teams focus on how the service or program is currently delivered, define what success looks like from both the citizen's and administration's perspective, analyze available data and trends related to the service or program and then finally design a future state for delivery of the program or service

The Urban Forestry Civic Service Review focused on tree inventory and maintenance.

THE PARKS DIVISION

The Parks Division is responsible for developing, preserving, and enhancing the City of Saskatoon's investment of its parks system and civic open spaces.

The division actively manages over 2,500 ha of parks and open spaces through the following programs:

- Parks and Open Space Maintenance;
- Sport Fields;
- Irrigation;
- Greenhouse and Conservatory;
- Pest Management;
- Parks and Open Space Design;
- Woodlawn Cemetery;
- Naturalized Area Management; and
- Urban Forestry.

THE URBAN FORESTRY PROGRAM

The Urban Forestry (UF) Program operates in order to protect, preserve and perpetuate the health, beauty and safety of the City of Saskatoon's urban forest for the enjoyment of its citizens.

The components of this program include:

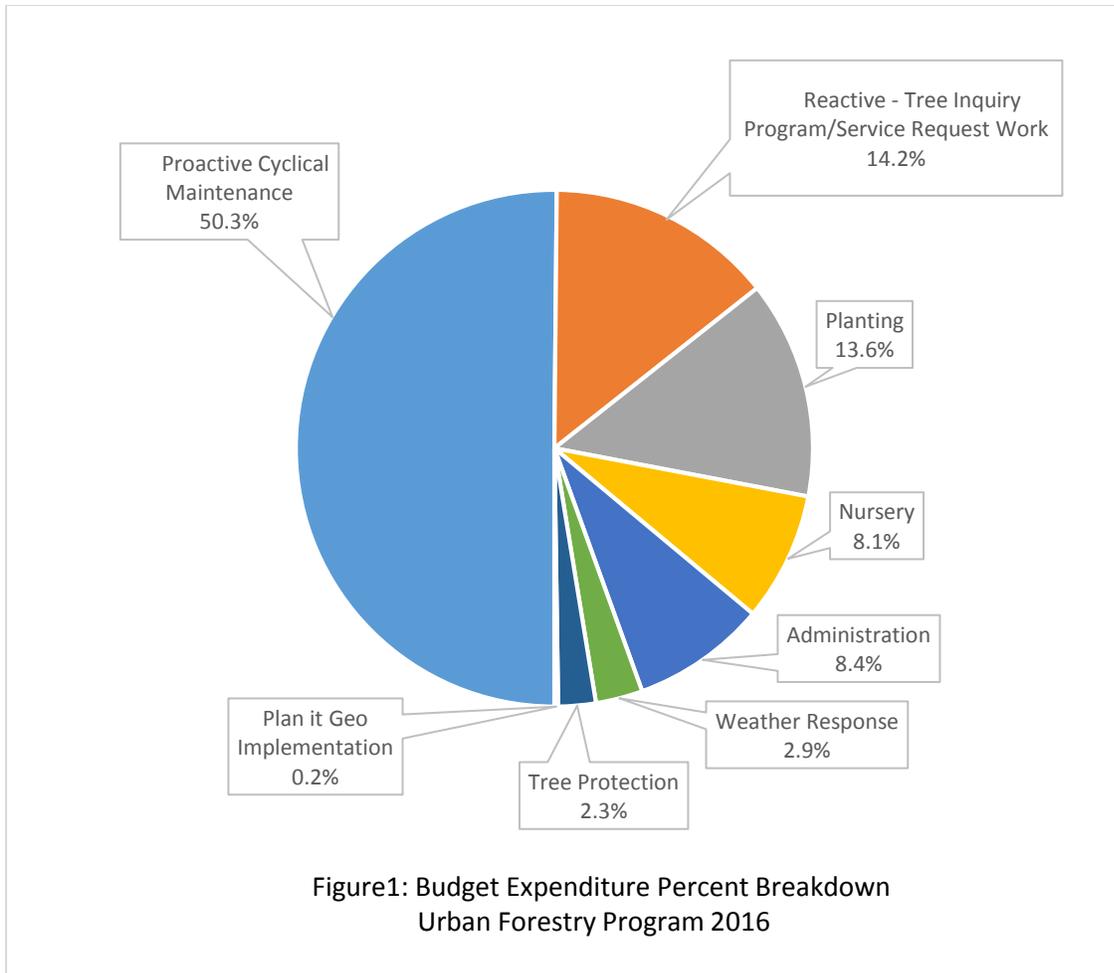
- Tree maintenance;
- Tree planting and; and
- Nursery production.

UF staff and contractors maintain just under 104,000 trees in Saskatoon, 60% of this tree inventory line city streets and boulevards and the remaining 40% are located within civic parks. There is a backlog of trees planted in new areas of the city that has not yet been entered into the tree inventory system, with this additional inventory the total is estimated at approximately 110,000 trees. It should be noted that the UF section does not maintain all civic trees. Additional trees at civic golf courses other facilities like fire halls and the Gordie Howe Complex and campground, the afforestation area, back lanes, cemeteries, and Meewasin Valley Authority river valley are all excluded from UF's service area. This division of responsibility for trees on civic property has been mentioned in previous audits as a potential issue when other City of Saskatoon divisions provide a different level of service than UF, for the trees in their areas of responsibility.

The economic value of trees varies according to size, location, species and condition. A large healthy tree can be valued at more than \$16,000. The total estimated value of the elm trees in Saskatoon on both public and private property is estimated conservatively at \$500 million.

Program Budget

Within the Urban Forestry program, the total budget is just over \$3.5 million. Costs related to providing tree maintenance both proactively and reactively account for 64.5% of total budget expenditures, planting and nursery service comprise an additional 21.7% of expenditures, with the remaining 13.8% being administration, weather event response, tree protection and tree inventory updates and system maintenance.



THE URBAN FORESTRY CIVIC SERVICE REVIEW

The UF CSR focused on tree inventory and maintenance related work. The CSR team included a diverse group of frontline and management staff from UF as well as a representative from the Pest Management Section. The following processes were reviewed:

- Tree Inventory:
 - Pruning Service Requests (reactive work);
 - Adding a New Street Tree to the Inventory; and
 - Adding a New Park Tree to the Inventory.
- Tree Maintenance:
 - Cyclical Park Tree Investigation, Pruning, and Removal/Stumping;
 - Cyclical Street Tree Investigation, Pruning, and Removal/Stumping; and
- Weather Event Response. Striking a balance between protection of the urban forest and responding to individual requests for tree removals or out of cycle maintenance; and

- The lack of clarity with City Council Policy C09-011 Trees on City Property.

The Urban Forestry team identified the following as key factors in their success of the program:

- Earlier input into neighbourhood/park design and development processes as well as capital infrastructure upgrade projects;
- The creation of an Urban Forestry Management Plan; and
- Software that can support analytics to inform decision making.

Creating the Desired Future State

The final stage of the CSR process focuses on creating sustainable organizational change by identifying the ideal future state for tracking tree inventory and for the tree maintenance program. These are the recommended actions to be taken to achieve the desired future state:

1. Review City Council Policy C09-011 “Trees on City Property” and provide a report and recommendations to Committee and City Council. Review should focus on service to citizens and include updates to potentially add options and flexibility to services provided while continuing to protect our Urban Forest. These optional service levels may include a “user pay for expedited services model”.
2. Work with internal partners to ensure that Parks Division has an early voice in planning processes to have influence over items that impact the life cycle of the Urban Forest from planting, pruning, inspection, removal, and stumping. In particular senior staff from Parks need to be key team members in the Right of Way, Tree Trimming, and Backlanes CSR’s.
3. Focus on Service Levels and define them by what is currently funded and how that impacts the health and well being of the Urban Forest and provides the greatest overall benefit to the public. Provide service level options to council for funding decisions based on the impact they will have on service provision to citizens.

One key finding of the CSR process that has already been put into action addresses the issue of the lag time between work completed and tree inventory data updating. The UF team has worked with Information Technology (IT) to develop requirements for a new tree inventory software system. Using these requirements a vendor was sourced and contract signed to deliver and implement a new tree management system in 2017. The system is tablet compatible and able to integrate mapping which will enable UF and contractor personnel to effectively manage the large scale inventories for effective work history and provide an opportunity to streamline data gathering and input processes within the UF program.

This change to support digital data entry will allow a refocusing of the Forestry Analyst and Forestry Technician’s time on data review and analysis increasing the ability for strategic planning within the workgroup.

Current State	Future State
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\$26/hour average salary (Forestry Analyst/ Forestry Technician)	\$26/hour average salary (Forestry Analyst/ Forestry Technician)
Several weeks potential lag time between work completed and tree inventory data updating	No lag time between work completion and tree inventory data updating; updated immediately upon completion of the work.
7,739 internally maintained trees	7,739 internally maintained trees
1,935 hours of staff time per year to manage inventory data entry (15 minutes manual data entry and paper file movement per tree)	930 hours of staff time per year to manage inventory data entry (5 minutes per tree to enter data in the field and review in office to determine follow up actions required)
Approximate cost to manage tree inventory data entry - \$50,300 annually	Approximate cost to manage tree inventory data entry - \$24,200 annually

In Summary, the \$25,000 estimated cost of upgrading the software system and work processes described above to support an increased use of technology will be absorbed through cost savings related to data entry and report generation in less than a season. This cost savings will be redeployed to add staff time to catching up on the data entry backlog as well as performing additional analysis work on the data set once it is up to date.

Next Steps

To continue to working towards the identified future state and address findings outlined in this report, the UF team and operational staff are working on the following:

- Investigate the appropriateness of updating the current City Council Policy C09-011 “Trees on City Property” or creating a formal urban forestry management plan and/or bylaw to encompass all aspects of tree protection and management;
- Recognizing the impacts climate change is likely to have on urban forest management and outlining support strategies (i.e. equipment sharing between municipalities) for the Weather Event Response Plan;
- Gather improved data on public and private trees inventories to improve disease and pest management and response;
- Participation in the Backlanes CSR in 2017;
- Establish a partnership with a Performance Improvement Coordinator from Employee Experience and Performance Division to guide Parks in the development of service level standards for tree maintenance service request priorities and timelines for work completion; and

- Implement the new tree management software and align it to support the streamlined processes created by the CSR team, as well as organizing training to support these new processes and the use of technology through 2017.

Future reports discussing service level options and costing will be presented to the Standing Policy Committee on Planning, Development and Community Services and City Council prior to 2018 Budget deliberations.

Other Continuous Improvement Efforts Underway within the Urban Forestry Program

Throughout the CSR team discussions, team members would bring forward on-going and recent changes being made in operations to create efficiencies. The team's dedication to CI is illustrated in a list of their current trials and initiatives:

- Improvements to work planning and citizen communication to reduce the number of service requests that require out-of-cycle tree maintenance work.
- Operational refocus to increase the number of park trees pruned by 25% in 2015-2016.
 - The initiative added more detail to pruning specifications for contractor work on young trees. This allowed contractors to complete pruning work in entire neighborhoods at one time and to the same standard internal staff were using. This improvement eliminated the need for internal staff to follow contractors through neighborhoods to do structural pruning on young trees and as such allowed internal staff to be redeployed to dedicated park pruning work.
- Increasing the use of contracts to reduce stumping backlog and reduce the time customers are waiting to have stumps removed.
 - Stumping refers to the removal of the stump and sub-surface root material after tree has been cut down and removed for health or other reasons.
- Increased communication and work coordination between Saskatoon Light & Power and the UF team where tree pruning is near high voltage lines.
- Implementation of a new tree inventory and pruning preparation system prior to having arborists enter a park or neighborhood to ensure maximization of productive work hours.
- Increased focus on structural pruning on young trees to limit pruning work later in the trees life and increase tree resiliency to wind and weather events.
- Transition to the use of tree watering bags to establish new plantings more effectively, the bags slowly soak the root zone for less water waste and are quicker to fill than watering with a garden hose.

The Parks Division and Urban Forestry Section continue to include CI in their annual business planning process and works to foster an open culture of continuous improvement efforts in order to provide the most efficient services to the citizens of Saskatoon as they work to manage our Urban Forest and keep it healthy and strong for generations to come.