TORONTO

REPORT FOR ACTION

Getting to the Root of the Issues – 90 Day Action Plan Update and Performance of Urban Forestry Contractors and City Crews

Date: June 22, 2021
To: Audit Committee
From: General Manager, Parks, Forestry and Recreation
Wards: All

SUMMARY

On February 9, 2021, the Auditor General released a report entitled "Getting to the Root of the Issues: A Follow-Up to the 2019 Tree Maintenance Services Audit", which was tabled at the Audit Committee meeting on February 16, 2021.

The Audit Committee made recommendations, subsequently adopted by Council, aimed at strengthening Parks, Forestry and Recreation's (PFR) oversight, monitoring and contract management related to tree maintenance services.

PFR agreed with the assessment and recommendations and established a 30/60/90 Day Plan of Action to advance deliverables related to the report's recommendations to improve crew oversight, enhance contract management and improve productivity and operational efficiency.

Council provided direction to PFR to report to the May 31, 2021 meeting of the Audit Committee with an update on the progress made with respect to the 90 Day Plan of Action and further to report to each regular meeting of the Audit Committee on experiences and data collected on the performance of Urban Forestry Contractors and City crews. Due to the cancellation of the May 31, 2021 Audit Committee meeting, this report has been redirected to the July 7, 2021 Audit Committee meeting. Further, PFR provided a 30-day update at the City Council meeting on April 7 and 8, 2021 and a 60-day update at the City Council meeting on May 5 and 6, 2021.

The purpose of this report is to provide a progress update on the 90 Day Action Plan and introduce a framework which will be used for the regular reporting back to the Audit Committee on experiences and data collected on the performance of Urban Forestry Contractors and City crews.

RECOMMENDATIONS

The General Manager, Parks, Forestry and Recreation recommends that:

1. The Audit Committee receive this report for information.

FINANCIAL IMPACT

There are no financial impacts as a result of the recommendation in this report.

Any incremental costs and/or cost savings as a result of implementing the 30/60/90 Day Action Plans associated with the Tree Maintenance Services Audit will be included in the 2022 Operating Budget Submission for Parks, Forestry and Recreation through the annual budget process.

The Chief Financial Officer and Treasurer has reviewed this report and agrees with the Financial Impact section.

DECISION HISTORY

At the May 5 and 6, 2021 City Council meeting, PFR presented its 60-day action update report, as directed by Audit Committee.
https://www.toronto.ca/legdocs/mmis/2021/cc/bgrd/backgroundfile-166196.pdf

At the May 5 and 6, 2021 City Council meeting, City Council adopted "Award of Negotiated Request for Proposal Ariba Document 2305234907 to Various Suppliers for the Provision of Arboricultural Services at various City of Toronto locations."
http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2021.CC32.6

At the April 7 and 8, 2021 City Council meeting, PFR presented its 30-day action update report, as directed by Audit Committee.
https://www.toronto.ca/legdocs/mmis/2021/cc/bgrd/backgroundfile-165385.pdf

At the February 16, 2021 Audit Committee meeting, the Auditor General tabled the report "Getting to the Root of the Issues: A Follow-Up to the 2019 Tree Maintenance Services Audit"
http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2021.AU8.6

On July 9, 2020, the City Solicitor and General Manager, Parks, Forestry and Recreation reported to the Infrastructure and Environment Committee on PFR's review of work performed by tree maintenance Vendors and provided related legal advice. A supplementary report was presented when the matter was considered by City Council on July 29, 2020.
http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2020.IE14.8

On October 25, 2019, the Audit Committee considered an information report from the General Manager, Parks, Forestry and Recreation outlining the division's progress in responding to the May 2019 Council direction.
http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2019.AU4.14

On May 14 and 15, 2019 City Council considered the Auditor General's audit, "Review of Urban Forestry - Ensuring Value for Money for Tree Maintenance Services", focused on tree planting and maintenance services.
http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2019.AU2.4

COMMENTS

In response to and concurrent with the Auditor General's report, PFR has implemented its 90 Day Plan of Action. PFR has taken steps to improve oversight of the operational and contract management aspects of tree maintenance, including but not limited to, the appointment of an interim Director of Forestry Operations to provide ongoing dedicated oversight on Forestry Operations, which includes contract management and compliance with existing and future tree maintenance Vendors.

30 and 60 Day Plan of Action Recap

The 90 Day Plan of Action comprised of 13 actions. Actions 1 through 11 were reported out in the 30 and 60 day reports and included:

- Action #1: Conduct physical surveillance of all tree maintenance crews for an indefinite period of time and incorporate findings in review to determine compliance.
- Action #2: Issue and enforce direction to Vendors concerning expectations for conduct while working for the City of Toronto, including the verification that Vendors fulfill their responsibilities for health and safety compliance.
- Action #3: Investigate tree maintenance staff (Vendor and City) in the 2021 Audit examples and undertake immediate and appropriate action.
- Action #4: Increase the number and scope of reviews, which now includes using daily logs, GPS records, photo documentation and surveillance data.
- Action #5: Implement a centralized call log and photo documentation for parked cars in real time to ensure evidence is provided concerning downtime at the work site. Crews expected to identify additional work that can be completed while waiting. Work with MLS and Toronto Police Service on additional actions to expedite the process.
- Action #6: Provide immediate written notice that the City (PFR) will no longer pay for breaks, to ensure that payment for services is consistent with the express terms of the contract.
- Action #7: Put tree maintenance Vendors on notice of improvements in performance necessary for contract compliance including increased supervision by the Vendors of their staff, and actions the City (PFR) will take if Vendors fail to improve performance.
- Action #8: Move final approval of invoices and contract compliance out of the Urban Forestry Branch and into PFR's Management Services Branch which provides an

additional assurance of oversight.

- Action #9: Provide new signage on tree maintenance vehicles, specifically adding "Call 311 in case of complaints."
- Action #10: Centralize all complaints for Urban Forestry into database and use data to inform where closer monitoring is required, including regular reporting and review with senior management.
- Action #11: Minimize unproductive time through the improvement of parked car and hydro hold-off downtime, and idle time before returning to yards and actively monitor to ensure compliance.

90 Day Plan of Action

The 90-day Action Plan, a focus of this report, is comprised of two actions

Action #12 - 2021 Arboricultural Contracts

The implementation of the 2021 Arboricultural Contract will address the Auditor General's recommendations that speak to how PFR can enhance contract management measures to improve tree maintenance crew oversight and improve productivity and operational efficiency. To inform a much improved and more accessible contract, PFR conducted marketplace surveys through PMMD and their external category management consultant.

Status Update: Complete

The 2021 Arboricultural Services Contracts were approved by City Council on May 5, 6, 2021, and awarded to five Vendors. The new contracts resulted from a strategic sourcing negotiated request for proposal (nRFP) process and followed current industry best practices incorporating the recommendations from both the 2019 and 2021 Auditor General's reports to facilitate better contract management, improve tree maintenance crew oversight and improve productivity and operational efficiency, including:

Additional proponents
The nRFP was designed such that Proponents could bid on all the work or on specific types of services or in specific geographical locations. This flexibility in the bidding process resulted in doubling the Proponent proposals received and the award of arboricultural services contracts to five successful Vendors.

New pricing structure with addition of unit rate contracts
The new contracts with five Vendors are 81 per cent hourly rate (awarded by crew type) and 19 per cent unit rate (awarded by geographical area). The hybrid approach (hourly rate versus unit rate) was in part to gather data on the productivity of each model and will assist in creating benchmarks, service levels and productivity expectations for the future. The arboricultural services sector does not have current benchmarks for how long tree maintenance services should take, and the City is using this opportunity to help create these benchmarks. Urban Forestry will rely on the new Enterprise Work Management System (EWMS) to collect data to analyze trends and productivity.

Over the next two years, PFR will evaluate the new contract models. The advantages and disadvantages of unit rate contracts versus hourly rate contracts will be evaluated with a goal of increasing the amount of work done on a unit rate basis, which will reduce paying for supportive and non-productive time, if the data gathered supports this. In addition, the functionality of services awarded by geographical areas will be evaluated.

Full access to live GPS, requirement to provide geo-tagged photos
The new contracts require the Vendors to provide full access to live GPS systems with enhanced reporting, for hourly rate contracts, which will be used to improve tree maintenance crew oversight.

The new contracts also require crews to submit geo-tagged photos of each tree, before and after work has been completed, which will be used by Urban Forestry when reviewing daily logs.

Action #13 - Launch of Enterprise Work Management System

The launch of Maximo, the City's Electronic Work Management System (EWMS) will replace the current manual work management process and address the Auditor General's Recommendations that speak to how PFR can enhance contract management measures to improve tree maintenance crew oversight and improve productivity and operational efficiency including:

- Use of mobile devices in the field and applications that record work in real time
- Electronic allocation of work to reduce yard time
- Dashboard feature to display real time KPIs to support crew oversight and effective work management
- Ability to collect and use data to monitor trends, and inform expected outcomes, performance measures and work allocation

Status Update: Underway

The City of Toronto needs an Enterprise Work Management System (EWMS) to plan and schedule their work, help foster sharing of information and best practices, improve connectivity between Divisions and among sections in PFR, and reduce maintenance costs. It will replace the aging Toronto Maintenance Management System (TMMS) with a centralized asset and work order management system, as well as improve business processes and practices. Parks, Forestry and Recreation, is one of four divisions implementing the IBM Maximo EWMS in stages. The current stage includes the implementation of the Urban Forestry branch of PFR.

It is anticipated that launch of IBM Maximo will occur in Q1 2022 for Urban Forestry, with the completion of the implementation for this branch by the end of 2022. To enable the launch of IBM Maximo for Urban Forestry in Q1 2022, final stages of planning and development are underway. Urban Forestry staff will be involved in final business requirements workshops starting in May and concluding in July.

The implementation and rollout of IBM Maximo will enhance contract management measures to improve tree maintenance crew oversight and improve productivity and operational efficiency. Specifically, it will result in the current paper-based Daily Work

Activity Reports (DWAR) records being completed electronically in real time. Capturing the daily work information electronically will enable Urban Forestry to run reports and analyze data to assess time spent performing tree maintenance work and time spent on supporting activities which will inform performance measures, allocation of work and expected outcomes. The data analysis will also allow for the development of benchmarks that will be included in future arboricultural services procurements.

Finally, PFR staff are also investigating potential interim solutions to improve operations, crew oversight and work management that could be implemented prior to IBM Maximo going live. The purpose of this review is to assess whether a viable interim solution, that doesn't impact the implementation timelines of IBM Maximo, can advance the benefits of electronic work management as soon as possible and act as a valid stepping stone to the desired goal of the corporate enterprise work management solution.

Performance of Urban Forestry Contractors and City crews

PFR is tracking and monitoring the following to measure performance of Contractor and City Crews on an ongoing basis and will be reporting back to every Audit Committee meeting on the performance status:

1. Physical Observation

Physical observation of Urban Forestry Contractors began April 1, 2021 and is being conducted by an external surveillance firm with the goal of identifying daily log inconsistencies and unproductive activities. PFR's Management Services team is analyzing the surveillance logs and video evidence on a weekly basis and ensuring that identified issues are escalated.

The contract requires that photos and continuous time stamped video footage be captured for the assigned crews. Crews to be observed are identified on a weekly basis based on needs which can include random selection, crews that have had complaints lodged against them, crews identified through inspections that require follow-up, or other criteria. Reports are submitted weekly with objective accounting of facts and time/date stamped photo evidence to assist with description of observations and include street addresses and GPS coordinates.

Issues identified are managed as follows:

- Issues related to invoice reconciliation are corrected through the Management Services Branch, also overseeing the physical observation contract, through communication to the Forestry Operations Branch and requests for contractors to resubmit invoices, as required.
- Issues related to observed unproductive times are discussed with Forestry Operations Branch and, if confirmed, appropriate action is taken, as applicable per contract terms.

PFR has reviewed the physical observation reports from the past 90 days and our findings and subsequent action taken primarily focus on the accuracy and quality of information reported in the daily logs. While the quality of daily log recording has increased significantly, this is an area where ongoing improvements will be needed.

2. GPS discrepancies

GPS discrepancies are reviewed through the Forestry Performance Inspection program and the number of reviews has doubled as a result of the Auditor General's 2019 and 2021 reports and an increase to the staff complement responsible for tree maintenance crew oversight. GPS records are compared to the daily activity logs and discrepancies are brought to the Vendor's attention and adjusted accordingly on the daily log. If discrepancies are discovered prior to invoicing, invoices will be paid based on the adjusted daily log. PFR requests credits and replacement invoices if the invoice was paid prior to the discovery of a discrepancy. Discrepancies are documented in the Forestry Performance Inspection database and crew leaders may be removed from the contract depending on the severity and frequency of the discrepancy.

	*GPS Reviews 2020	GPS Reviews (Jan-May, 2021)
Number of Reviews	1170	1034
Number of Discrepancies	60	165

*GPS reviews became a requirement for quality control inspections for Vendors on May 2, 2019 and for City crews on August 31, 2020.

3. Efficient use of time

Efficient Use of time is reviewed through the Forestry Performance Inspection program and is determined by performing on-site inspections and quality control inspections combined with a review of daily logs and work order requirements, complaints received and any other supporting documentation if applicable such as a parked car log or GPS report. The size, condition and access to the trees being maintained is taken into consideration when evaluating the tree maintenance required. Issues of efficient use of time are discussed with the Vendors and City crew leaders and may result in invoice reconciliation, removal of Vendor crew leaders from the contract and discipline of City crew leaders in accordance with the collective agreement.

	Efficient Use of Time Reviews 2020	Efficient Use of Time Reviews (Jan-May, 2021)
Number of Reviews	5318	2956
Number of Issues Found	88	125

4. Complaints

Complaints are logged into the Forestry Performance Inspection program. All complaints are reviewed by staff and reviewed by the Interim Director of Forestry Operations on a monthly basis and followed up on, as required. Complaints that are perceived to be related to wrongdoing are forwarded to the Auditor General. Complaints related to contractor performance issues are discussed with Vendors and documented in Vendor compliance reports and may be escalated to the physical observation contract, if warranted. Twenty complaints related to City crew or contractor performance issues were logged as valid from January 1 through May 31, 2021. Eighteen of the twenty validated complaints have been resolved through adjusted hours on invoices, rework at no cost to the City or through the claims/damage process. Two of the validated complaints are still under investigation.

	January 2021	February 2021	March 2021	April 2021	May 2021
Validated Complaints	1	1	4	7	7
Resolved	1	1	4	6	6

* Validated complaints refers to complaints that were determined to need follow-up action, after investigation. Follow-up actions can include requiring crews to return to perform additional work, invoice modifications, referrals to the physical observation contract.

5. Daily Work Activity Report Review

Batch samplings of daily activity logs are manually sampled and reviewed in extensive detail to capture detail on the various activities of Contractor and City crews. Currently this is a manual process; however, once EWMS is rolled out, daily logs will be electronically completed which will allow for a much more detailed, comprehensive and City-wide review of daily logs.

The 30 Day Action Plan Update that was before City Council on April 7 and 8, 2021, committed to reviewing daily logs from the previous month to confirm an improvement in accuracy of documentation and improvements in productivity and operational efficiency. PFR reviewed 148 daily logs for the period from March 1 to March 31, 2021 for one yard where the majority of productivity issues exist. The results of this review are included in the table below. The arithmetic mean, calculated by dividing the sum of a collection of numbers by the count of the numbers, reflects the central tendency of that collection and therefore is not always the best number to use to report findings as it can be skewed by outliers. As such, the median (middle value) and mode (most frequent value) are also included below for a fulsome review of the data:

Activity	Time spent working on trees	Driving & Fueling	Yard & Dumping	Parked Cars	Hydro hold-offs	Non-productive breaks	Non-productive other
Arithmetic Mean	4h35m	1h27m	52m	25m	9m	1m	7m
Median	4h41m	1h28m	50m	15m	0m	0m	0m
Mode	5h0m	1h15m	45m	0m	0m	0m	0m

* results are based on a paper review only, not on physical observation.

6. Invoice Verification

Invoice discrepancies identified by PFR are documented in the Forestry Performance Inspection database. The number of unbillable hours are either not paid to the Vendor, if discovered prior to invoice payment, or a credit is requested from the Vendor if the discrepancy was discovered after invoice payment. When a deficiency related to the completion of a tree maintenance activity is discovered, Vendors are directed to return to the work location, at their cost, to take corrective action and complete the assigned tree maintenance activity. In addition a second level of invoice verification is undertaken by Management Services. Any discrepancies are reported back through Forestry Operations Management staff to identify issues and update processes, as required.

	2020	Jan-May 2021
Number of Invoices	52	101
Number of hours unbillable due to deficiencies	135	175
Number of locations crews revisited to complete work at their cost	37	20

7. Vendor Compliance Reports

PFR will be conducting regular Vendor compliance meetings and issuing compliance reports to the Vendors under the new contracts starting July 1, 2021. The meetings and compliance reports will be used as part of PFRs ongoing contract management tools to review and evaluate performance, compliance and adherence to contract terms and will be used to inform appropriate follow up actions.

The new arboricultural contracts are comprised of the Legal Agreement, Request for Proposal (nRFP), Addendums, all schedules tied to the nRFP, Vendors proposal and final price form agreed to. Contract compliance is based on holding conformance with all the terms set out in all the documents by all parties to the contract.

Vendors will be measured against the terms of the contract using the following tools:

- Reviewing the forestry performance inspection program reports which includes quality control inspections, on-site inspections and complaint investigations
- Contract compliance reports which list key terms against their contract references and measurements on how the term was met, or not. Some key terms will include deficiencies identified through performance inspection reports, invoice review/reconciliation issues (submitted on time and correctly), insurance requirements, report requirements (submitted on time and correctly), crew complements, GPS access, personnel issues, signs on vehicles, adherence to health and safety requirements.
- Information obtained from the physical observation contract.

Vendors will be held to terms of the contract using the following tools:

- Meetings with Vendors to review the compliance reports, advise required action for not meeting terms.
- Issuance of letters to file, where warranted, to advise required action by Vendor.
- Utilizing additional tools available in the contract where required action is not taken by Vendor to correct compliance issues.

The actions taken in the 30-60-90-Day Plan of Action have provided immediate improvements on tree maintenance crew oversight, enhanced contract management measures and operational productivity and efficiency. PFR will continue the implementation of the Auditor General's recommendations in order to enhance Urban Forestry's tree maintenance crew oversight, contract management, productivity and operational efficiency and will continue to report back on the experiences and data collected on the performance of Urban Forestry Contractors and City crews with the goal of continuous improvement.

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SIGNATURE

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ATTACHMENTS

Attachment 1: Presentation from the General Manager, Parks, Forestry and Recreation at the February 16, 2021 Audit Committee Meeting