

## PERFORMANCE MEMORANDUM

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**Date:** March 10, 2014

**To:** Rashad M. Young, City Manager

**CC:** Debra Collins, Deputy City Manager; Tom Gates, Deputy City Manager / Chief of Staff; Laura Triggs, Chief Financial Officer; Jerome Fletcher, Special Assistant to City Manager; Craig Fifer, Acting Director of Communications; JoAnn Maldonado, Community Relations Division Chief; Jim Spengler, Director of Recreation, Parks, and Cultural Activities; Dinesh Tiwari, Deputy Director Park Operations (RPCA); John Noelle, City Arborist (RPCA); Robert Taylor, Natural Resources Division Chief (RPCA)

**Thru:** Greg Useem, Chief Performance Officer

**From:** Elizabeth Davies, Performance Analyst *ed*

**RE:** Why are trees one of the most requested services through Call. Click. Connect.?

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This memorandum answers the following performance question, raised by the City Manager in response to a recent finding that tree issues represent one of the top service requests entered through *Call. Click. Connect.*, the City's system for tracking and responding to citizen requests, comments, and questions:

*Why are trees one of the most requested services through Call. Click. Connect.?*

The analysis found that in lieu of a more costly pro-active preventative tree maintenance policy, we rely instead on citizens and staff to identify the trees that require services through *Call. Click. Connect* requests (**Finding 1**) – typically these trees require pruning or removal (**Finding 2**). The majority of services are completed on time (**Finding 3**), and for the most part, help us avoid tree damage to citizens' property (**Finding 4**).

We request that the City Manager review and state his approval of the following recommendations:

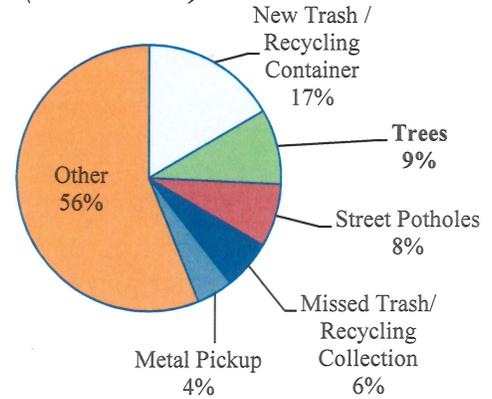
1. The Office of Communications & Public Information continue to promote the use of *Call. Click. Connect.* for requesting tree services.
2. The Office of Communications & Public Information provide citizens who request a service with (a) an expected completion date based on targeted and historical turnaround times and (b) an explanation for why this timeline is acceptable (e.g., tree damage to citizen property is rare).
3. RPCA's Natural Resources Division work toward resolving data entry errors that prevent precise estimation of completion times.

## ISSUE OVERVIEW

Alexandria has about 17,000 street trees and tens of thousands more trees located in parks, on school and library properties, and at other public facilities.<sup>1</sup> Its tree canopy is 34 percent (2010), about the same as the estimated national average for tree cover in urban areas at 35 percent.<sup>2</sup>

Each year, the City of Alexandria receives ~1,300-1,400 requests from citizens for tree services through *Call. Click. Connect.*<sup>3</sup> As shown in the pie chart at right, this service is the one of the most requested in the City.

**Top 5 Call. Click. Connect. Service Requests FY2014 (7/1/13-2/7/14)**



## MAJOR FINDINGS

### 1. Funding limitations have led to a need-based, request-driven tree maintenance policy

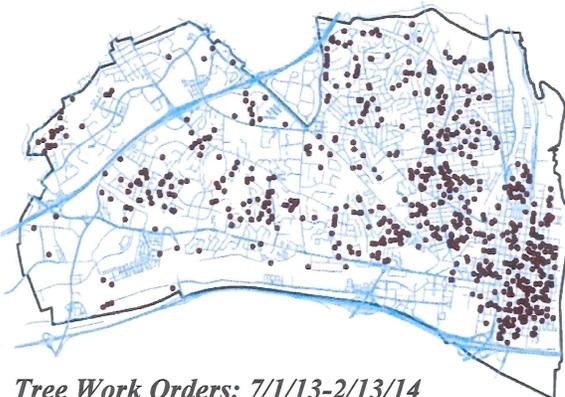
The City's Recreation, Parks, and Cultural Activities Department (RPCA) is responsible for the care of public trees through its Natural Resources Division, which employs 13 FTEs (who also maintain City horticultural sites and natural lands) as well as two contractors: Denison Landscaping (whose crews are assigned primarily to tree planting) and Care of Trees (whose crews are assigned primarily to tree removal and pruning). The Natural Resources Division is budgeted to spend \$2.4 million in FY 2014. These staffing and funding levels have been virtually unchanged over the past three years.

The portion of these resources available for pro-active preventative maintenance (e.g., pruning and removals) is small and focused on trees on major thoroughfares. While an ideal tree maintenance program (based on national best-practice models cited by RPCA) would include pro-active assessment and pruning on a five-year rotational cycle, we rely instead on citizens and staff to request services through *Call. Click. Connect.* Consequently, most of our tree maintenance is in reaction to an identified need.

As a result of this **need-based maintenance policy**, we would expect the number of service requests to be higher for trees than for other City assets that are maintained more frequently and regularly. A more proactive policy – such as five-year rotation tree maintenance – would likely reduce service requests but RPCA estimates the change would also cost 2-3 times the current budget.

### 2. The volume, type, and location of tree services has been fairly consistent over time

The total number of work orders initiated has increased marginally since FY2012, the first year for which data are reliable; in FY2012, we completed 2,500 work orders, then 2,700 in FY2013, and an estimated 2,800 in FY14 (assuming similar volume as the first seven months).



**Tree Work Orders: 7/1/13-2/13/14**

Data from the City Arborist indicate that pruning is consistently the top tree-related work order (25-33%), followed by tree removal (15-20%) and tree planting (9-12%). Although overall 60% of work orders are assigned to and completed by City staff crews, contracted crews are responsible for the majority of tree pruning and tree planting services. Contracted work orders also tend to be more complex and to require more technical skills / equipment; for example, trees removed by contracted crews are generally those with thicker trunks (6" or greater diameter) that require log removal equipment. Tree work orders are concentrated in the eastern half of the City where the density of roads and street trees is higher.

<sup>1</sup> FY2014 Adopted Budget

<sup>2</sup> USDA 2010. [http://www.fs.fed.us/openspace/fote/reports/nrs-62\\_sustaining\\_americas\\_urban.pdf](http://www.fs.fed.us/openspace/fote/reports/nrs-62_sustaining_americas_urban.pdf)

<sup>3</sup> Some requests are from citizens unhappy about a service that has already been performed at the request of another citizen (e.g., removing a tree that has just been planted, objecting the removal of a tree).

**Tree Work Orders: FY2012 – FY2014**

Type of Work Order*	FY2012		FY2013		FY2014**		Est. % work orders contracted out**
	#	%	#	%	#	%	
Pruning	806	33%	720	26%	512	31%	62%
Tree Removal	480	19%	536	20%	241	15%	49%
Plant Tree	302	12%	240	9%	204	12%	99%
Brush/Wood Pickup	210	8%	368	13%	157	10%	1%
Other	155	6%	270	10%	192	12%	8%
Hanging Limbs	137	6%	339	12%	138	8%	0%
Grind Stump	203	8%	152	6%	109	7%	2%
Elevate Low Limbs	140	6%	31	1%	48	3%	4%
Emergency Services	2	0%	40	1%	17	1%	0%
Clear Building	23	1%	21	1%	8	0%	100%
Clear Traffic / Street Signs	13	1%	6	0%	10	1%	0%
Clear Lights	7	0%	4	0%	9	1%	0%
Forestry / Trees	0	0%	2	0%	3	0%	0%
<b>Total Work Orders</b>	<b>2,478</b>		<b>2,729</b>		<b>1,648</b>		<b>40%</b>

\* Data represent work orders, not trees; the actual number of trees serviced exceeds the number of work orders, particularly in the cases of planting, large projects (e.g., public rights of way), and emergencies such as weather-related storm damage.

\*\* Fiscal Year 2014 submitted as of 2/3/2014 (seven months)

**3. The majority of tree services are completed on schedule**

If trees issues are not addressed in a timely manner, they may pose safety hazards, impede transit, and/or damage infrastructure. To avoid these problems, the City has set a target turnaround time of 45 days for completion of tree work orders, based upon the following considerations:

- **Investigation Time:** Arborists have 5 days to investigate the service request in the field and create a work order for assignment to a crew of in-house staff (RPCA) or contractors
- **Work Order Assignment:** Contractors typically receive work orders in two week intervals
- **Contractual Agreements:** Contractors have 30 days to complete the work, submit an invoice, and receive a final inspection by RPCA
- **Prioritization:** Tree work orders created as a result of identification through a liability claim are prioritized and completed in fewer than 30 days
- **Time of Year:** Tree planting may be delayed if work orders are received outside of regular planting seasons
- **Task Complexity:** Some work orders require more labor than others

As shown in the table below, the average tree work order was completed within 29 days in FY2014. The average completion time for pruning services exceeded the 45 day target.

**Tree Work Orders: FY2014(7/13-2/14)**

Type of Work Order	#	% of total	Avg. days to complete***
Pruning	512	31%	46
Tree Removal	241	15%	42
Plant Tree	204	12%	20
Brush/Wood Pickup	157	10%	5
Other	192	12%	-
Hanging Limbs	138	8%	5
Grind Stump	109	7%	14
Elevate Low Limbs	48	3%	24
Emergency Services	17	1%	-
Clear Building	8	0%	-
Clear Traffic / Street Signs	10	1%	-
Clear Lights	9	1%	-
Forestry / Trees	3	0%	-
<b>Total Work Orders</b>	<b>1,648</b>		<b>29</b>

\*\*\* Date initiated to date completed; FY2014 only. Estimated completion times may be unreliable due to data entry errors, such as initiating a work order after the work has been completed (particularly for small jobs when the work is assigned before a work order can be generated).

#### 4. Property damage from trees is rare in the City

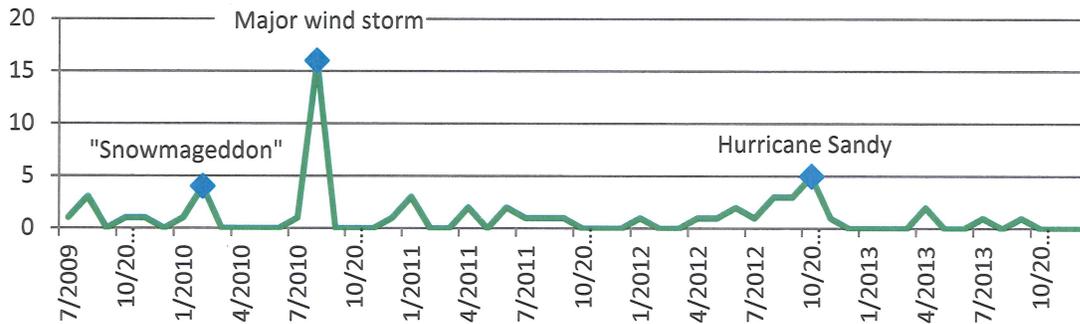
Data from the City Finance Department show that since July 2009, the City has received 61 claims from citizens about City trees damaging property; 28% of those claims were for damage caused by the August 2010 wind storm in which Alexandria declared a state of emergency<sup>4</sup>. Nine claims resulted in payment to citizens, costing the City \$20,933 for tree damage to citizen property over a four year period. It is unknown whether this damage, which is primarily weather-induced, could have been prevented through preventive maintenance or faster turnaround times.

	FY10	FY11	FY12	FY13	FY14	TOTAL
No. Claims	11	25	8	15	2	61
Value of Claims	\$5,498	\$11,490	\$1,578	\$2,368	\$0	\$20,933

\*\* Fiscal Year 2014 submitted as of 2/19/2014 (7.5 months)

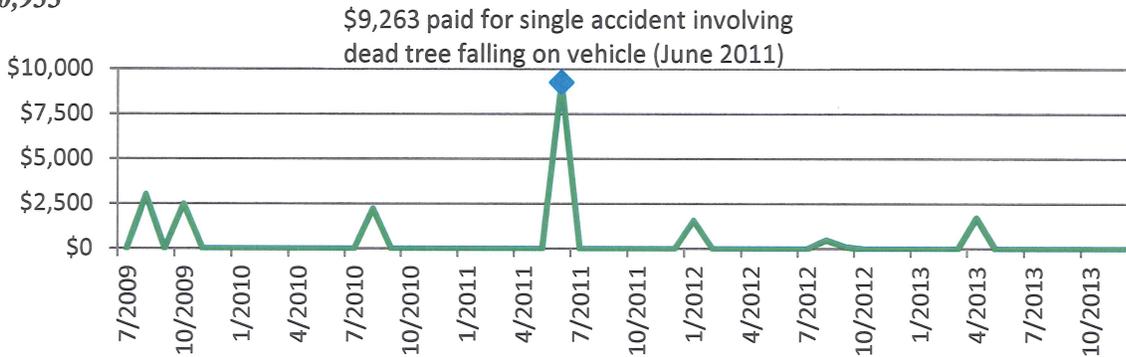
#### Monthly claims (incidents that occurred July 1, 2009 – February 19, 2014)

Total=61 claims



#### Dollars paid from claims (incidents that occurred July 1, 2009 – February 19, 2014)

Total=\$20,933



#### Conclusion and Recommendations

In lieu of a more costly pro-active preventative tree maintenance policy, we rely instead on citizens and staff to identify the trees that require services through *Call. Click. Connect* requests—typically these trees require pruning or removal. The majority of services are completed on time, and for the most part, help us avoid tree damage to citizens' property.

Because we want citizens to report tree problems, we recommend that:

1. The Office of Communications & Public Information continue to promote the use of *Call. Click. Connect.* for requesting tree services.
2. The Office of Communications & Public Information provide citizens who request a service with (a) an expected completion date based on targeted and historical turnaround times and (b) an explanation for why this timeline is acceptable (e.g., tree damage to citizen property is rare).
3. RPCA's Natural Resources Division work toward resolving data entry errors that prevent precise estimation of completion times.

<sup>4</sup> <https://www.alexandriava.gov/uploadedFiles/fire/info/Fall%202010.pdf>