

**Subject: DPR-Tree Canopy Summary**

**FY 2018 Proposed Budget  
Budget Work Session Follow-up**

**4/10/2017**

The following information is provided in response to a request made by Ms. Libby Garvey and Mr. Jay Fisette at the work session on 3/28/2017. Regarding the Urban Forestry Commission's request for the County to conduct a tree study, please provide an update on the cost of a Tree Canopy Study, how often a study should be performed and how DPR would fund a study with existing funds. Additionally, please provide a summary of how DPR currently measures the Tree Canopy and the advantages of measuring the Canopy in alternative ways.

The Department of Parks and Recreation (DPR) tracks the County's tree canopy through on-the-ground survey samples; periodic aerial tree studies; data collection on DPR street tree planting, removal, and maintenance; and on development plans reviewed by DPR. The last two aerial tree studies were performed in 2008 and 2011, with the latter funded by the Casey Foundation.

An aerial study of the tree canopy should be performed every three – five years. DPR plans to perform a new aerial tree study in FY 2018. Based on recent costs incurred in Fairfax County, DPR expects this study to cost about \$10,000. DPR will fund the study in FY 2018 with existing funds.

Per the last aerial tree study in 2011, the County had a tree canopy covering about 40% of land area. This equates to approximately 755,000 trees overall. Of these trees, DPR directly maintains approximately 119,500 trees (19,500 street trees and 100,000 parkland trees). The remaining 84% of the canopy is on private, federal, and Arlington Public Schools property. DPR also distributes approximately 670 trees annually through the tree distribution and tree canopy programs and reviews an average of 800 development plans (including resubmissions) each year for assessment of tree impact during construction and development.

The 2008 aerial tree study showed approximately 43% tree canopy coverage in the County and the 2011 study showed approximately 40%. To understand what is happening with the canopy and the overall health of trees in the County, DPR has focused resources in the last year to an on-the-ground sample study called the iTree Eco survey. This survey model uses tree measurements and other data to estimate the relative health, value, and benefits of the urban forest by quantifying air quality improvement, carbon dioxide reduction, and stormwater control. This survey is performed using a statistical sampling method that provides information on the volume (size and diameter), canopy, species, and other factors that help estimate the structural make-up of the Arlington "forest." By combining this data with an aerial tree study, DPR can quantify the overall tree canopy coverage in the County along with the health and value of the canopy.

**Subject: DPR – Tree Canopy Summary**

Since DPR has direct influence over only a small portion of the Arlington tree canopy, both the aerial imagery and regular ground-based surveys are necessary to inform County strategy on what is happening with trees. DPR’s goal is to maintain at least a 40% tree canopy coverage. In order to gauge where we are with this goal, an additional aerial tree study will be performed to update our understanding and test the results of the iTree eco survey.

Below is a summary of tree canopy related measures provided in the FY 2018 Proposed Budget:

<b>Critical Measures</b>	<b>FY 2013 Actual</b>	<b>FY 2014 Actual</b>	<b>FY 2015 Actual</b>	<b>FY 2016 Actual</b>	<b>FY 2017 Estimate</b>	<b>FY 2018 Estimate</b>
Street Trees Planted by the County/ Trees Removed/ Net Gain (Loss)	762/ 720/ 42	672/ 620/ 53	804/ 545/ 259	565/ 710/ (145)	820/ 663/ 157	820/ 663/ 157
Number of Trees Distributed to Public through Tree Distribution and Tree Canopy Fund Programs	N/A	812	577	515	700	750
Number of Site Plans Reviewed for Tree Impacts during Construction and Development	785	765	761	957	760	816