



# 2013 Young Tree Care Survey Report

Compiled by Michael Hawkins, Program Director

*Because trees are a critical element of a livable, sustainable urban environment, Canopy's mission is to educate, inspire, and engage residents, businesses, and government agencies to protect and enhance local urban forests.*

## **1. Introduction**

**Canopy is a nonprofit organization working to promote a healthy urban forest by educating, inspiring and engaging the community in the stewardship of young and mature trees.** The Young Tree Care Program was created to address these goals. The Young Tree Care Survey is a component of this program, and seeks to educate homeowners on the proper care of young trees, to notify the City of Palo Alto of any problems with young street trees that need to be addressed, and to engage community volunteers in the process. Young street trees are on the front line of our urban forest. They must tolerate the harshest urban conditions and yet, once established, provide some of the greatest benefits to our city and residents.

**The Canopy Young Tree Care Survey takes place in the summer months and surveys most street trees planted in Palo Alto in the past five planting seasons.** At each tree surveyed, information is left with homeowners or business owners on the proper care for young trees along with information collected about their particular tree(s). Results from the survey are compiled and shared in a detailed report to the City's Public Works Department to alert the staff about trees in need of care. Results of the survey are also posted on Canopy's website, [www.canopy.org](http://www.canopy.org).

## **2. Survey Results**

On the next page is a table summarizing the results of the survey. Each of the questions from the survey are on the left with the total number of trees for which the answer was yes and percentage of the total on the far right. In the middle are the percentages from the previous 5 surveys for comparison. An explanation and evaluation of many of the individual questions follows.

## Canopy 2013 Young Tree Care Survey

<b>General</b>						<b>2013</b>		
	<b><u>2008</u></b>	<b><u>2009</u></b>	<b><u>2010</u></b>	<b><u>2011</u></b>	<b><u>2012</u></b>	<b>#</b>	<b>%</b>	
Trees Surveyed	932	905	890	735	702	<b>672</b>		
Trees planted in previous 5 yrs	843	1090	1209	1099	1007	<b>960</b>		
Health Rating of 0	-	-	-	-	1%	<b>11</b>	<b>2%</b>	
Health Rating of 1	-	-	-	-	6%	<b>52</b>	<b>8%</b>	
Health Rating of 2	-	-	-	-	21%	<b>233</b>	<b>35%</b>	
Health Rating of 3	-	-	-	-	64%	<b>371</b>	<b>55%</b>	
“Red Flag”	-	-	-	-	19%	<b>68</b>	<b>10%</b>	
Positive comment left about tree	36%	43%	38%	56%	NA	<b>NA</b>	<b>NA</b>	
Tree is dead or dying	1%	1%	1%	1%	1%	<b>12</b>	<b>2%</b>	
Tree Not Found	-	-	1%	0%	2%	<b>6</b>	<b>1%</b>	
<b>2013</b>								
<b>Home Owner Concerns</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>#</b>	<b>%</b>	
Needs water	43%	35%	41%	32%	43%	<b>307</b>	<b>46%</b>	
Needs mulch	28%	35%	26%	24%	40%	<b>218</b>	<b>32%</b>	
Needs weeding	13%	15%	12%	12%	12%	<b>71</b>	<b>11%</b>	
Weeded Today	4%	5%	2%	4%	6%	<b>35</b>	<b>5%</b>	
Lawn or other competing plants	15%	13%	15%	16%	18%	<b>106</b>	<b>16%</b>	
Mechanical damage or injury	2%	3%	1%	4%	4%	<b>33</b>	<b>5%</b>	
<b>2013</b>								
<b>City Concerns</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>#</b>	<b>%</b>	
Needs basin re-building	4%	6%	10%	10%	22%	<b>143</b>	<b>21%</b>	
Suckers need to be pruned	9%	6%	7%	2%	5%	<b>50</b>	<b>7%</b>	
Suckers Pruned Today	7%	5%	1%	1%	5%	<b>63</b>	<b>9%</b>	
Needs to be re-staked	3%	2%	4%	3%	NA	<b>NA</b>	<b>NA</b>	
Needs to be re-strapped	1%	2%	2%	3%	NA	<b>NA</b>	<b>NA</b>	
Needs to be restaked/restrapped	-	-	-	-	10%	<b>58</b>	<b>9%</b>	
Stakes need to be removed	18%	18%	19%	8%	29%	<b>158</b>	<b>24%</b>	
Root flare no longer visible	5%	5%	5%	9%	6%	<b>35</b>	<b>5%</b>	
Root flare cleared today	3%	3%	1%	2%	2%	<b>31</b>	<b>5%</b>	
Needs pruning (major)	2%	2%	3%	3%	6%	<b>25</b>	<b>4%</b>	

### **3. Evaluation**

This is the fourth year that Program Director Michael Hawkins has led the survey effort and trainings. Consistency of message, a new video available for volunteers to view prior to conducting a survey, and other minor tweaks, are resulting in a more reliable survey.

**We surveyed a total of 672 trees this year.** It should be noted that not every street tree planted in the last 5 years is included in the survey. Approximate addresses, for example in front of parks, and trees planted in medians, are not surveyed. Added to the survey report this year is the number of all public trees planted by the city in the previous 5 years. **At 960, this number has been on the decline since 2010, but is higher than the 843 trees that were planted in 2008.**

**“Health Rating”** was added as a criterion in 2012. This allows the surveyor to record at least one piece of information for every tree. In previous years, volunteers would write free text comments regarding the overall health of the tree and this was compiled into the **“Positive comment left about tree”** category, which was not compiled this year. While we were encouraged that the number of positive comments about trees continued to rise from previous surveys, these comments were anecdotal. We created a simple and reliable rating system to obtain an overall assessment of how well these young trees are doing. A simple 0-3 scale was used. A “0” rating means the tree is dead or dying. A “1” means the tree shows obvious signs of decline”, “2” means the tree is healthy, but shows few signs of growth for its species. A rating of “3” means the tree is healthy and shows signs of vigorous growth for its species. Though the rating system is subjective to a degree, we believe the simplicity of the rating system allows us to assess the health of a tree much more easily than before. **35% of trees this year received a rating of 2, while 55% received a rating of 3. This is a decrease in the highest rating and an increase in a moderate rating which could be a sign in a slight decrease in the general health of our young trees or a sign of a more critical surveyor population. Either way, only 10% of the trees surveyed received a 1 or 0, which is a sign that the majority of our young street trees are doing well.**

**“Red Flag”** This category was also added in 2012. After all of the survey data has been compiled, every survey record is reviewed by Canopy Program Coordinator, Natalia Schooli. Trees with a health rating of 1 or 0, and trees with anything listed in the notes signifying any immediate attention needed is given the label of “Red Flag.” A separate report of just these trees will be printed and delivered with this summary report to the City of Palo Alto. **68 trees, or 10% received this label. This is a decrease from 19% in 2012. The rubric was modified slightly this year which may explain the change. The rubric has been added to the Survey Protocol and will be strictly followed in future surveys.**

**“Needs Water” remained high at 46%.** Lack of water has always been the biggest challenge facing young trees in the urban environment. Residents often don’t realize that the City counts on them to water street trees at their residence. Canopy’s “Is Your Thirsty Tree” campaign raises awareness about tree care and specifically the need to water during the first few summers following planting. The campaign includes postcards mailed to residents, the tree care brochure left on the homeowner’s porch during the survey and the “Is Your Tree Thirsty?” banner. The increase over the last two years may be partially due to many of the surveys not being conducted until later in the summer. It may also be due to the exceptionally dry weather this year. Either way, this high percentage is troubling.

**“Needs basin re-building” remained high, at 21%.** Watering basins are most important during the first dry season after planting. It would be advisable to rebuild any basins that are not intact early in the spring or summer following planting.

**“Stakes need to be removed” remained very high at 24%.** Stakes should be removed when no longer needed. Damage to branches and trunks that have outgrown stakes and straps can be detrimental to future growth and lead to wounds that can be vectors for disease and pest issues.

**“Suckers pruned today” and “Root flare cleared today” both increased from 5% to 9% and 2% to 5% respectively.** This highlights how the survey is a valuable tool for getting immediate care to trees using volunteer support. Canopy trained volunteers are rightfully confident in their ability to help young trees in need.

**Canopy continues to look at ways to improve the tree care survey.** This year we used the recently produced Young Tree Care Survey Video to train volunteers uniformly. We will continue to work with the City of Palo Alto's Urban Forestry Division to make sure we are meeting their needs. We hope to organize follow-up volunteer work events to assist the City with any needed tree maintenance, particularly mulching young trees. We will continue to work on improving and streamlining the Young Tree Care Survey. Any comments or suggestions by Surveyors, City Staff, or the community at large are much appreciated. Please contact me at [michael@canopy.org](mailto:michael@canopy.org).

#### **4. Methodology:**

**The Young Tree Care Survey is a volunteer-based effort.** This year we recruited **52 volunteers for our surveys who together logged over 180 hours.** Our volunteers represent a broad cross-section of the community, including high school students, college students, retired community members and local community groups. This year we were thrilled to again engage folks involved in the planning of the California Avenue re-planting in the surveying and care of those trees. Actively involving residents in the care and enjoyment of Palo Alto's Urban Forest is a major part of our mission and the Annual Young Tree Care Survey is a major element in reaching this goal.

**The City of Palo Alto Geographic Information System (GIS) team and Canopy volunteers used the city's street tree inventory (TreeKeeper) to create route maps, info tables and to print large-scale maps of all trees and routes.** This step helps streamline volunteer survey time. The list of young street trees was downloaded from the City's TreeKeeper database into a spreadsheet and sent to City GIS specialists. Special thanks go to Marta Seone at the city's GIS team and intern Andrea Tuttle, who were a huge help in preparing this year's survey

**Volunteers distributed our “Young Tree Care” brochure with tips on watering and protecting young trees, information about the value of the urban forest and a personalized survey form to educate residents.** Volunteer surveyors completed brochures with survey information related to the young trees' urgent needs and included notes to encourage resident attention to the trees. The personalized brochure was left at the door of each residence and additional blank brochures were handed out to residents that approached volunteers with questions about the survey or Canopy.

**Each survey team was equipped with a clipboard, red pen, individual map of their route, a table with tree info details, pre-printed survey forms, pre-labeled brochures for each residence or business, and a soil moisture probe.** Volunteers were trained, divided into teams and assigned routes that could be completed within a 2-3 hour span. Many surveys were completed during our scheduled survey trainings on July 17<sup>th</sup> and July 20<sup>th</sup>. Other volunteers were recruited and instructed to watch our 6 minute training video before conducting surveys. Most of the surveys were completed in the months of July and August, with a handful finished in September.

**Volunteers performed first care on young street trees again this year.** In addition to marking the survey form, whenever possible, volunteers weeded around the tree base, removed suckers and cleared the root flare of young trees. This step gives volunteers a chance to do some basic hands-on tree care, contributes immediately to the health of the trees and spares the City of a large cumulative maintenance project.

**Our “Is Your Tree Thirsty?” campaign accompanies the survey each year.** Large banners reading “Is Your Tree Thirsty” are prominently displayed at the train overpasses of University Ave and Embarcadero Rd. This year we also hung a banner in East Palo Alto along University Avenue on a fence near HWY 101 where it was seen by many people traveling into Palo Alto from the Dumbarton Bridge. We also sent a watering reminder postcard to each residence where a tree had been planted in the last 5 years. Postcards contain information on proper watering practice and our web address for more information.

## **5. Conclusion**

**The health and vitality of the City of Palo Alto as a whole depends on maintaining a healthy urban forest. Our urban forest canopy draws people to our community and contributes to our quality of life.** Canopy’s Young Tree Care Survey involves the community to make sure that young trees survive and our urban forest will be maintained into the future. This has become increasingly important as our urban forest matures. Annual removals as a necessity have risen beyond annual plantings and our city tree crews are stretched thin. Educational outreach, brings increased awareness and appreciation of our city trees. Understanding the biggest problems we face with our city trees through the Young Tree Care Survey will help us shape our programs in the future to meet tree needs better. If you have any questions or recommendations on how the Survey can be improved send an email to [michael@canopy.org](mailto:michael@canopy.org).

An electronic listing of trees and their corresponding problems has been provided separately to the Urban Forest Division. As well as printed and electronic copies of the separate “Red Flag” report and trees surveyed that were not listed on TreeKeeper. This has been done in hopes that the department will schedule maintenance accordingly and attend to the trees most in need.