2012 Young Tree Care Survey Report

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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 and 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 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. The Canopy Young Tree Care Survey began as a pilot project in the summer of 2001 and expanded into a citywide program in 2002. At each address surveyed, information is left with homeowners on the proper care for young trees. 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 will also be posted on Canopy's website, www.canopy.org.

2. *Evaluation*

We surveyed a total of 702 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, or in medians, are not surveyed. This is the third 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.

"Health Rating" was added as a criterion for this year's survey. 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, we realized that these comments were anecdotal. With this in mind, 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 relative to species. A rating of "3" means the tree is healthy and shows signs of vigorous growth relative to species. Though the rating system is also 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. **24% of trees this year received a rating of 2, while 64% received a rating of 3 which is a sign that the majority of our young street trees are doing well**.

"Red Flag" This category is also new this year, and was added after all of the survey data had been compiled in the database. It is an attempt to highlight those trees that are in most need of attention, and was requested by City staff after last year's survey was finished. Every tree that has a health rating of 1 or 0, has a rating of 2 and several identified issues, or has anything in the notes that signifies that the tree needs immediate attention was given the label of "Red Flag" by a single volunteer who reviewed each survey. A separate report of just these trees will be printed and delivered with this summary report. **133 trees, or 19% were labeled as Red Flag, and should receive attention immediately.**

"Needs Water" jumped from 32% to 43%. 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 "Thirsty Tree" postcards, the tree care brochure left on the homeowner's porch during the survey and the "Is Your Tree Thirsty?" banner are raising awareness about tree care and specifically the need to water during the first few summers. An increase this year may be partially due to many of the surveys not being conducted until later in the summer.

"Needs Mulch" increased significantly from 24% and 26% in the two previous years to 43% in 2012. Applying mulch is one of the easiest ways to increase tree survival and health rates. While a heavy layer of mulch is added by the City at the time of planting, Canopy and the City's Urban Forestry Division. should discuss ways to ensure mulch coverage is retained or reapplied.

"Needs basin re-building" jumped from 10% in the previous two years to 22% in 2012. A greater emphasis on the importance of the berm during the 2 major survey trainings this year is one possible reason for this increase. 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.

"Needs to be re-staked" and "Needs to be re-strapped" were combined this year. 10% of trees were identified as needing one of these actions.

"Stakes need to be removed" jumped significantly from 8% to 29 %. 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 .

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 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 tree maintenance they may need, 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.

3. ***Methodology:***

The Young Tree Care Survey is a volunteer-based effort. This year we recruited **56 volunteers for our surveys. Over 135 volunteer hours** and many staff and paid youth staff hours were required to complete the survey. Our volunteers represented a broad cross-section of the community, including high school students, college students, retired community members and local community or corporate groups. This year we were thrilled to engage folks involved in the planning of the California Avenue re-planting in the surveying and care those trees. Actively involving residents in the care ~~of~~ 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.

Canopy's Youth Staff employment program plays a key role in completing the survey. Our summer interns and youth employees (ages 16-20) were given leadership roles and teamed up as mentors with the younger student volunteers.

The City of Palo Alto Geographic Information System (GIS) used TreeKeeper data – which was organized by volunteer~~,~~ Scott Wells – 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. Thank you once again to Dave Matson and Marta Seone. A GIS layer was created with the trees marked by tree symbols and a large map was printed. Survey routes were hand-drawn on the large map with for a total of 45 routes.

Canopy's summer intern~~,~~ Russell Langston, worked with Marta Seone in the City's GIS dept. to draw and label polygons around the trees in each route and print individual route maps. The polygons were also used to create tables with the address, location, tree species and date planted for each route.

Canopy volunteer Scott Wells used the TreeKeeper data to create pre-printed survey forms and personalized brochure labels for each route. These steps increase efficiency and reduce the possibility for errors by our volunteer surveyors The survey form divides the possible problems a tree may have into responsibilities of the homeowner and responsibilities of the City..

Our color "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, was distributed to each residence surveyed. 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 trees or the survey.

Each survey team was provided with a clipboard, red pen, individual map of their route, a table with tree info details, pre-printed survey forms for the trees on the route, pre-labeled brochures for each residence and soil moisture probes. Volunteers were trained, divided into teams and assigned routes that could be completed within a 2-3 hour span. **A total of 702 trees were surveyed**. Most of the surveys were completed during our scheduled survey dates of **July 14, July 18, August 7, and our California Avenue survey on August 15.** Experienced survey volunteers and youth staff completed the remaining surveys in teams throughout the summer. 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 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.

The "Is Your Tree Thirsty?" campaign accompanied the survey, including our 20' banners posted prominently at El Camino Field from July 15 until August 29 and at the train overpasses of University Ave and Embarcadero Rd. from July 1 to July 15. We also sent a watering reminder postcard to each residence where a tree has been planted in the last 5 years. We received multiple comments and questions regarding our banner with web address and link to summer watering and tree care tips. The banner was highly visible to residents of Palo Alto, Stanford, Menlo Park and all travelers along each busy street. Postcards were sent in June, before the summer survey, to all addresses with young street trees. Postcards also contain information on proper watering practice and our web address for more information.

1. Conclusion

The health and vitality of the City of Palo Alto depends on maintaining a healthy urban forest. Our urban forest canopy draws people to our community and contributes to our quality of life. Trees are looking very good according to the increased number of positive comments by tree surveyors. This is another testament to the awareness that has increased as a result of the survey and resident outreach, as well as the City's ongoing attention to street trees. 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 of increasing importance as our street tree canopy matures, annual removals rise beyond annual plantings and our city tree crews are stretched thin. Educational outreach, which brings increased awareness and appreciation of our city trees, is a very important component of this program and we are seeing the results. 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. Again, if you have any questions or recommendations on how the Survey can be improved send an email to 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. This has been done in hopes that the department will schedule maintenance accordingly and attend to the trees most in need. The table below compares this year’s compiled results to previous years. For easier reference, the number of trees surveyed and the percentages of each category are listed under previous years.

Canopy 2012 Young Tree Care Survey – Problems Reported

General

	2008 %	2009%	2010%	2011%	2012 #	2012 %
Trees Surveyed	932	905	890	735	702	
Health Rating of 0	-	-	-	-	9	**1%**
Health Rating of 1	-	-	-	-	44	**6%**
Health Rating of 2	-	-	-	-	149	**21%**
Health Rating of 3	-	-	-	-	448	**64%**
"Red Flag"	-	-	-	-	133	**19%**
Positive comment left about tree	36%	43%	38%	56%	NA	**NA**
Tree is dead or dying	1%	1%	1%	1%	10	**1%**
Tree Not Found	-	-	1%	0%	12	**2%**

Home Owner Concerns

	2008 %	2009%	2010%	2011%	2012 #	2012 %
Needs water	43%	35%	41%	32%	304	**43%**
Needs mulch	28%	35%	26%	24%	281	**40%**
Needs weeding	13%	15%	12%	12%	83	**12%**
Weeded Today	4%	5%	2%	4%	44	**6%**
Lawn or other competing plants	15%	13%	15%	16%	126	**18%**
Mechanical damage or injury	2%	3%	1%	4%	25	**4%**

City Concerns

	2008 %	2009%	2010%	2011%	2012 #	2012 %
Needs basin re-building	4%	6%	10%	10%	156	**22%**
Suckers need to be pruned	9%	6%	7%	2%	32	**5%**
Suckers Pruned Today	7%	5%	1%	1%	35	**5%**
Needs to be re-staked	3%	2%	4%	3%	NA	**NA**
Needs to be re-strapped	1%	2%	2%	3%	NA	**NA**
Needs to be restaked/restrapped	-	-	-	-	72	**10%**
Stakes need to be removed	18%	18%	19%	8%	202	**29%**
Root flare no longer visible	5%	5%	5%	9%	41	**6%**
Root flare cleared today	3%	3%	1%	2%	14	**2%**
Needs pruning (major)	2%	2%	3%	3%	59	**6%**