



2010 Young Tree Care Survey Report

Compiled by Michael Hawkins, Program Director

Because we believe 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 both 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. Young street trees are on the front line of our urban forest. They must tolerate the harshest urban conditions and yet provide some of the greatest benefits to our city and residents.

The Young Tree Care survey takes place in the summer months and surveys all street trees planted in Palo Alto by the City and by Canopy 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 so they can take action on trees in need of care. Results of the survey will also be posted on Canopy's website, www.canopy.org.

2. Evaluation

The total number of young street trees has decreased even further than last year and is 42 trees lower since the 2008 survey. There are many factors contributing to this decline. A more useful figure would be the number of sites that have been retired and the number of new planting sites that have been found and planted during the year.

"Needs mulch" dropped significantly since last year's survey from 35% to 26% This may be explained by a change in emphasis put on this survey item by the person giving survey demonstrations, however, I have also noted a good number of City planted street trees that are well mulched.

Stake Removal. The percentage of trees with stakes that need to be removed has not significantly gone up or down. This data, however, could be of great use to the City's Tree Department. And with the separate report created this year, I hope this information will be put to us, as removing stakes that are no longer needed is a relatively easy way have a major impact on young trees including damage to tree trucks due to rubbing stakes and ties.

38% of trees received positive comments in this year's survey. This figure was derived by searching for all comments that contained the words "good" "healthy" "fine" and "great". Surveyors were encouraged once again to leave this sort of comment if the tree surveyed looked generally healthy. Many trees are generally healthy even though soil moisture may have been low at the time of the survey. While not scientific, this helps us gain a sense of each tree. Future surveys may contain a question on general tree health. With this in place we will have a better understanding of how our young trees are doing, and with increased outreach and education, hopefully we increase this number above 38%.

"Needs Water" increased significantly since last year's survey from 35% to 41%. This jump is likely due to more surveys done later in the summer than in previous years. 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 specifically the need to water during the first few summers.

The percentages of trees that need to be re-staked/re-strapped, need structural pruning remains low. The information provided by Canopy to the city’s tree crews through the volunteer survey and the increased diligence of Palo Alto’s Tree Dept. have greatly improved the maintenance of street trees. This improved care will help encourage strong tree trunks and better form in the young trees. The tree care brochure and general community awareness also encourages residents to take a proactive approach in the care of their street trees.

Tree Not Found. While not included in the table, there was an increase in trees not found. There was also an increase in complaints of information provided that was not correct. We hope that the new City Inventory will be the end to these complaints.

Canopy continues to look at ways to improve the tree care survey. We will continue to work with the Tree Dept 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.com.

3. Methodology:

The Young Tree Care Survey is a volunteer-based effort. This year we recruited 75 volunteers (an increase of 24) for our surveys. Over 220 volunteer hours and 65 paid youth 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 including the Menlo-Atherton High School Outreach Club, and the Key Clubs from both Palo Alto and Gun High Schools. I think the increased number of people involved in looking after our trees is a major benefit of the yearly survey for the urban forest of Palo Alto.

Canopy’s youth employment program plays a key role in completing the survey. Our summer intern and youth employees (ages 16-19) were given leadership roles and teamed up as mentors with the younger student volunteers.

The City of Palo Alto Geographic Information System (GIS) was employed with TreeKeeper data to create route maps, info tables and 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 65 routes.

Canopy’s summer intern, Darryl Sepulveda, worked with Marta Seone in the City’s GIS dept. to draw and label polygons around the trees of 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 the trees on each route.

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

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 890 trees were surveyed.** Half of the surveys were completed during our scheduled survey dates of July 14, July 17 and September 11th. Experienced survey volunteers and youth staff completed the remaining surveys in teams throughout the summer. All surveys were completed between mid-July and early 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 hands-on tree care, contributes immediately to the health of the trees and by spending a little extra time at some trees, saves the city from a large cumulative maintenance project.

The “Is Your Tree Thirsty?” campaign accompanied the survey, including our 20’ banners posted prominently throughout the summer at El Camino Field and at the train overpasses of University Ave and Embarcadero Rd. 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 needs and our web address for more information.

4. Significant Results

The two most frequent problems that volunteers found with young street trees were again “needs water” and “needs mulch”. The other three most common issues were “stakes need to be removed”, “lawn or other competing plants” and “needs weeding”. Below in Table 1 is the survey data with the number of trees reported for each problem (Note: Many trees exhibited more than one problem.)

Table 1: Canopy 2010 Young Tree Care Survey – Problems reported

Total trees surveyed	890
Needs water	362
Needs mulch	232
Needs weeding	106
Lawn or other competing plants	133
Mechanical damage or injury	13
Needs basin re-building	90
Suckers need to be pruned	61
Needs to be re-staked	36
Needs to be re-strapped	22
Stakes need to be removed	172
Root flare no longer visible	46
Needs pruning (major)	27
Tree dying or dead	12

A listing of trees and their corresponding problems has been provided separately to the Public Works Department so that the department may schedule maintenance accordingly and attend to the trees most in need. Table 2 (following on page 6) compares this year's results to previous years. For each year, both the total number of trees and the percentage with each problem is shown.

5. 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 that we face with our city trees through the Young Tree Care Survey will help us shape our programs in the future to better meet tree needs. Again, if you have any questions or recommendations on how the Survey can be improved send an email to michael@canopy.org.