

SAN FRANCISCO URBAN FORESTRY COUNCIL

ANNUAL REPORT, JULY 1, 2009-JUNE 30, 2010

Submitted to Edwin M. Lee and the Board of Supervisors by the Department of the Environment, pursuant to San Francisco Environment Code Chapter 12 Sec. 1209.

Executive Summary

This report of the Urban Forestry Council provides the Mayor and Board of Supervisors with information on the state of San Francisco's urban forest. Included is information on overall urban forest structure, overall urban forest value, street tree structure, street tree function and value, current management structure, and opportunities for improving our urban forest.

Of the twenty agencies and organizations asked to respond, fourteen provided information on their programmatic operations and suggestions on opportunities for improvement. These agencies reported 112 full-time staff plus 107 part-time staff or staff that dedicated a portion of their full-time work hours to urban forest programs, with additional services provided by contractors and volunteers. The combined agencies planted 3717 trees, cared for between 12,603 and 20,108 trees, and removed approximately 880 trees from July 1, 2009 through June 30, 2010. These totals include work performed on trees managed by the City, which accounts for less than half of the total urban forest. These agencies and organizations had a dedicated forestry-related budget totaling \$15.4M with an additional \$1.375M in broader landscaping contracts that included some forestry work.

The most recent comprehensive study of our urban forest, The San Francisco Bay Area State of the Urban Forest, published by the USDA Forest Service's Center for Urban Forest Research (CUFR) in December of 2007, estimates San Francisco's canopy coverage to be roughly 16% with a total of about 669K trees. This report finds the benefits provided by our urban forest to be worth \$103,475,877, with the greatest benefits derived from property value and hydrology-related issues. Hydrological benefits alone are worth an estimated \$4,444,309. While these two benefits comprise an estimated 99.3% of the direct environmental benefits provided by our city's trees, Mayor Newsom reported at the Mayor's Earth Day Breakfast this April that inclusion of the full value of the carbon sink of the urban forest in the City's Climate Action Plan for the first time this year is responsible for the City's achievement of not only meeting but exceeding the Kyoto protocol's emission reduction goals. While these resources are important, less easily quantifiable benefits may have a greater impact to the average city-dweller; for example, the ability of trees to enhance street life by creating more livable spaces through beautification, reducing the speed of vehicular traffic, and positively affecting area commerce.

While San Francisco's estimated 110,000 street trees are on par with the statewide street tree average, there are many opportunities to increase the resource extent. The 2003 City of San Francisco, CA, Street Tree Resource Analysis, also published by CUFR, estimates that of these sites, the most densely planted neighborhoods have an average rate of 28% unused potential planting locations, while underserved neighborhoods typically see unused possible planting location rates of up to 74%. This inconsistent distribution of the urban forest is potentially an important environmental justice issue. Recent tree planting efforts have focused on these underserved neighborhoods, but more work and resources must be allocated.

San Francisco's urban forest management is divided among many managing agencies and stakeholders. Based on reported information from these stakeholders, we can assume that approximately 40% of the city's trees are on public lands, with additional trees that are privately owned but regulated by the City through the Significant tree and Landmark tree designations.

Many organizations cited ongoing concerns regarding lack of ability to provide adequate care to trees within their jurisdiction due to long-term funding and staffing issues. This is important to note, as this lack of funding has led to the requirement that private property owners care for publicly owned trees, which results in canopy loss due to illegal removal and improper pruning. The illegal removal of public trees is a serious concern. The Department of Public Works issued 105 citations for illegal removal and pruning this year; these figures are not included in the numbers presented above, and represent only a fraction of actual illegal removals. Urban forest managers continue to be concerned with the lack of coordination among urban forest stakeholders and managers and with their ability to communicate effectively with the general public to highlight the importance of projects, obtain community support of forestry-related projects, and ensure proper management of urban trees.

This report is compiled based on agency response and does not include all information on all urban forestry work within the City and County of San Francisco. If any agencies and organizations that did not meet the deadline for inclusion in this report submit program data in the future, a supplemental report will be drafted.

Urban Forestry Management and Funding: *Opportunities and Challenges*

This report provides an overview of the activities, accomplishments and challenges of government agencies and nonprofit organizations working on urban forestry in San Francisco, based on information that participating agencies and organizations provided.

San Francisco's urban forest comprises both publicly and privately owned trees, in open spaces, in privately maintained landscapes, and in the public right of way. The maintenance responsibility for city trees is divided amongst multiple stakeholders, which have their own governing regulations, practices, and operations.

The Urban Forestry Council (UFC) identified and contacted twenty urban forest managers and stakeholders, including public, private, and nonprofit partners, with potentially significant roles in the care of San Francisco's urban forest. They were asked for information regarding their programmatic operations between July 1, 2009 and June 30, 2010 (See Tables 1–4).

The following entities responded:

The Recreation and Parks Department (RPD)
San Francisco's Public Utilities Commission (PUC)
The Port Authority (PORT)
San Francisco International Airport (SFO)
Treasure Island Development Authority (TIDA)
San Francisco Unified School District (SFUSD)
The University of California in San Francisco (UCSF)
The Planning Department (Planning)
The California Department of Forestry and Fire (CalFire)
General Hospital for the Department of Public Health (DPH)
A Living Library
Friends of the Urban Forest (FUF).
Department of Public Works (DPW)
San Francisco State University (SFSU)

The following entities did not respond:

The Municipal Transit Authority (MTA)
The Botanical Gardens at Strybing Arboretum (Strybing)
Golden Gate National Recreation Area (GGNRA)
The Presidio Trust
City College of San Francisco (CCSF)
Pacific Gas and Electric Company (PGE)

The many stakeholders listed above should not be considered a comprehensive list of all city foresters. The divided approach has led to uncoordinated management of the urban forest. Some believe this lack of coordination has led to inconsistent management that, in turn, has led to the loss of large numbers of trees through improper care and removal. Others counter that the individual entities' ability to focus on their defined portion of responsibility ensures all parts of the urban forest are receiving some care. All stakeholders agree, however, that there are not enough resources applied to the management of our public trees for urban forest managers to be able to provide an adequate level of care to ensure a healthy and sustainable urban forest.

The responding agencies reported a combined budget committed to urban forest programming of \$15.4M for fiscal year 2009-2010.

Reducing the time between prunings of urban trees increases their lifespan. At current funding levels, RPD estimates that they can visit each tree within their jurisdiction only once every 54 years. To reach an adequate tree care cycle, RPD would need four times their current staffing and program levels. With a current operating budget of \$3.25M, this means they could require an annual budget

of almost \$13M to properly manage their trees. DPW is similarly stretched with the loss of 15 full time dedicated urban forest staff positions, despite their need of three times their current staffing levels to provide the level of care they deem necessary. Further, this staffing need does not reflect DPW's desire to assume the care of all trees within their jurisdiction. While DPW regulates the care of all street trees, the department provides direct maintenance for only 40,000 of the city's estimated 110K street trees. As our urban forest provides us with a structural value of approximately \$95M, it is clearly a valuable resource that is being neglected to the detriment of all city residents, through the reduction in the financial gains, improvement of physical and mental health, and the social benefits that our trees could provide.

Based on the reported information provided by urban forest stakeholders, of the 669K trees that comprise our urban forest, the Recreation and Parks Department maintains 131K trees, DPW regulates 110K, and various other agencies reported management of an approximate additional 30K trees. Trees in San Francisco's open spaces are managed by several other agencies, including Recreation and Parks Department, Golden Gate National Recreation Area, The Port of San Francisco, San Francisco Municipal Railway (MUNI), City College of San Francisco (CCSF), University of California (UCSF), SF Public Utilities Commission, and others. The San Francisco Bay Area State of the Urban Forest found that nearly 400K trees are located on privately owned, residentially zoned land. This means that more than half of our urban forest is privately owned and managed.

Additionally, street trees are divided into two distinct populations, those managed by the Department of Public Works (DPW) and those managed by private property owners. A significant majority of street trees are the responsibility of private property owners, but the level of care varies greatly. Though all street trees are publically owned and regulated, 70K of these trees are considered to be the responsibility of adjacent property owners. As a result, 64% of the San Francisco's street trees are maintained by private entities.

Some property owners actively tend the public trees that are their responsibility to care for. Many property owners work with Friends of the Urban Forest (FUF), although FUF only provides care for young trees. San Francisco's street trees are often routinely neglected or damaged due to lack of understanding of proper tree care, misunderstandings about who is responsible for care, or through vandalism. Trees on private property are the responsibility of the property owner.

Although there are significant hurdles to the proper care of the urban forest, it is important to note the milestones achieved in the past year for urban forestry programming.

The Recreation and Parks Department successfully included an urban forest component in the voter-approved general obligation bond funding mechanism, the Clean and Safe Neighborhood Parks Bond. In addition to the bond funding, which will be applied to pruning, hazard mitigation, and replanting, RPD has dedicated additional funding for an overall review of RPD's urban forestry work plans and for creation of a set of guiding recommendations to improve their operations by moving to a care program split equally between reactive and programmed care.

The Planning Department was able to secure a grant through the Sustainable Growth Council for completion of the Urban Forest Green Structure Master Plan, which was put on hold due to funding constraints. This long awaited plan, which will help to coordinate citywide efforts, will be incorporated into the San Francisco's General Plan.

These two successes have begun addressing some of the major barriers for urban forest stakeholders, although the highest priority concerns continue to be, year after year, loss of trees due to age and disease and the lack of ability to provide adequate care to newly planted as well as established trees. These obstacles to achieving a healthy and sustainable urban forest can only be addressed by eliminating the increasing concerns surrounding funding, staffing, and coordination efforts through prioritization of urban forestry programs.

Responses charts from the 2010 Annual Urban Forest Report Survey

Table 1: Respondents were asked about staffing and budget:

Agency/Organization	Urban forest-related staff positions	What is your total organization/agency budget?	What is your urban forestry related budget?
DPH	One full-time Gardener and three part-time Gardeners.		
Port	Two gardeners who perform tree inspections and maintenance as needed, but are not specifically urban forest related positions.	\$66M	\$14K work ordered to DPW
SF PUC	0		No specific budget
RPD	27		"I believe the same as last year?" (\$3.2M'08-'09)
SFO	12 gardeners, two park section supervisors and one environmental specialist		45K for internal operations. 5K a year for contractor.
Treasure Island Development Authority (TIDA)	Approximately 5 landscape workers	\$10, 164,265	\$175K work order to DPW. \$675K contract with Rubicon Landscaping.
Living Library	9 part time staff	\$410K	\$80K
School District		\$1,000,682 for SFUSD landscaping division	\$50K
UCSF	1	\$3.3 billion, including the Medical Center budget	No specific forestry budget. Funding part of Parnassus Landscape budget which is approximately \$700k per year
Cal Fire	6 Regional Field Foresters, 1 State Urban Forester & 1 Program Analyst	Approximately \$1 million from the US Forest Service and \$5 million from Propositions 40 & 84, bonds.	
Planning	0	\$23,860,000	No dedicated urban forestry budget beyond grants obtained.
FUF	10 full-time plus 5 half- time	\$1,372,793	\$1,372,793
DPW	63 full-time plus 67 staff who spend a portion of their time on urban forest activities, including understory and median work.	\$17,193,772	\$10,402,771
San Francisco State University	2 Climbers and Grounds manager is a Certified Arborist	Not supplied	Not supplied
TOTALS	112 full-time staff;107 part-time staff or staff that dedicate a portion of their time to UF programs	Dedicated urban forest budgets of reporting agencies:\$15,391,564 Additional funding that partially supports urban forest programs:\$1,375,000	

Table 2: Respondents were asked about work plans:

Agency/Organization	How many trees within your agency have been:			Did your agency work for another agency?	Did another agency work for your agency?
	Planted	Cared for	Removed		
DPH – General Hosp.	None		Approx. 170	No	BUF and WEBCOR
Port of San Francisco	1	30	4	No	DPW- Bureau of Urban Forestry pruned the trees on the sidewalk and the median along the Embarcadero.
SF PUC	19		About 83	No	DPW, FUF, Living Library, Volunteers, WSIP, RPD, Costello's
RPD	855	738	393	Yes. PUC, City College.	
SFO	Approx. 150	220-225	7	No	S and C Environmental Solutions
TIDA	"We haven't been planting new trees or removing old trees, but we prune the existing trees to maintain their health, appearance and safety."			No.	Rubicon Landscape Services
Living Library	about 510	about 1000	about 15-20	400 trees for RPD 25 trees for DPW 38 trees for SFUSD 47 trees for Housing Authority	SFUSD Landscape Division, Merrit College Tree Pruners
School District		"Cared for as needed"	30	No.	Peninsula Tree, Friends of the Urban Forest; parents and community groups
UCSF	15	~7500	~20	No.	Planting with Friends of the Urban Forest; Removal/Maintenance by Bartlett Tree Experts.

Work plans continued:

Cal Fire	Grants funded approx 15,000 - 25,000 tree plantings & care in the last year.		"We don't fund removals."	No.	Cities and non-profits planted trees with our funds on their own lands.
Planning	Planning doesn't directly plant or maintain any trees.			No.	No.
FUF	1,097	4,367	0	Planting and tree care services for SFUSD. Plants and maintains trees under DPW jurisdiction	No.
DPW	1050	5998	103	DPW performs tree work for many city agencies on an as-needed basis, for example, SF Fire Department, San Francisco General Hospital, San Francisco Municipal Transit Authority, the PUC, the Port of San Francisco, San Francisco Housing Authority, and others.	A contractor has been maintaining 3655 trees previously planted. DPW issues permits to property owners to plant and/or remove trees. DPW issued permits to remove 532 trees, and permits to plant 806 trees. DPW also issued 233 Sidewalk landscaping permits.
SFSU	20	250	50	No	250K for contractors that performed trimming and removals.
TOTALS	3717	12,603-20,108	875-880	4 agencies/orgs worked for other agencies/org	10 agencies/orgs performed work for other agencies/orgs

Table 3: Respondents were asked to rank the urban forest-related concerns on a 1-5 scale, with 1 being “not significant” and 5 being “extremely significant”

Agency	Inability to provide adequate care to newly planted trees	Inability to provide adequate care to established trees	Inefficiencies in the way forestry programs operate on a city-wide basis	Loss of significant numbers of trees due to age and/or disease	Loss of significant numbers of trees due to vandalism, illegal pruning, and/or illegal removal	Loss of significant numbers of trees due to development
DPH	1	4	5	3	1	5
Port	3	4	1	5	2	2
SF PUC	5	4	5	5	4	5
RPD	5	5	3	5	4	2
SFO	2	1	“N/A”	1	1	1
TIDA	“N/A”	“N/A”	“N/A”	“N/A”	“N/A”	“N/A”
Living Library	3	4	5	3	4	4
School District	5	5	4	5	3	1
UCSF	2	2	3	5	4	2
Cal Fire	3	4	5	2	4	3
Planning	5	4	1	4	2	3
FUF	5	1	3	4	2	6
DPW	5	4	4	3	4	4
SFSU	1	5	2	5	1	3

Table 4: Respondents were asked to rank the areas of concern that were limiting their ability to excel on a 1-5 scale, with 1 being “not significant” and 5 being “extremely significant”

Agency	Funding constraints	Staffing constraints	Prioritization of urban forestry programs within your agency/the city at large	Lack of coordinated efforts to protect and manage the overall urban forest	Lack of tree inventory	Lack of management plan
DPH	3	4	5	4	3	4
Port	3	5	5	4	1	3
SF PUC	5	5	5	5	5	5
RPD	5	5	4	3	2	2
SFO	1	2	2	1	1	1
TIDA						
Living Library	5	5	4	5	4	4
School District	5	5	1	4	1	5
UCSF	5	5	2	4	2	2
Cal Fire	5	3	5	3	3	4
Planning	5	4	3	5	3	3
FUF	4	3	1	5	5	4
DPW	5	5	3	4	3	3
SFSU	5	5	3	3	1	1