

SAN FRANCISCO URBAN FORESTRY COUNCIL

ANNUAL REPORT, SEPTEMBER 2009

*Submitted to Mayor Gavin Newsom 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.

There are approximately 700,000 trees in San Francisco. The most recent major report, 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 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 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 neighborhoods, but more work and resources must be allocated.

This year marked the completion of the Mayor's Trees for Tomorrow campaign to plant 25,000 trees over a 5-year period. The successful program exceeded its goals by planting 26,408 trees in 5 years. Averaged over the course of the Mayor's Trees for Tomorrow initiative, the City has been meeting the Urban Forestry Council's goal of planting 5,000 trees per year for each of the past five years. Additionally, San Francisco Unified School District began its 2012 by 2012 campaign to plant 2012 trees by the end of 2012.

Of highest concern is that, of the organizations that participated in the research for this report, all except one stated that their number one challenge is an ongoing lack of adequate and consistent funding and staffing. This situation has worsened in the last fiscal year due to staff layoffs and budget reductions. Many organizations cited ongoing concerns about the health and safety of trees under their management and their lack of ability to address these concerns due to long-term funding and staffing issues. Some agencies indicated that they require an Urban Forest Plan, which they either currently do not have at all or have only in an unsatisfactory form. It's important to note that many city departments contract with the Department of Public Works and the Recreation and Parks Department to perform necessary tree care; this is significant as both of these agencies reported that they lack the resources and staff to manage trees within their jurisdiction, yet must choose to assign their existing staff to contracted work to prevent loss of staff positions due to inadequate funding.

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, a supplemental report will be drafted.

**Urban Forestry Management and Funding:
Opportunities and Challenges**

San Francisco’s urban forest is comprised of both publicly and privately owned trees, in open spaces, in privately maintained landscapes, and in the public right of way. Currently, street trees in San Francisco 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. Some property owners actively tend their trees and some work with Friends of the Urban Forest (FUF), although FUF only provides care for young trees. Many of San Francisco’s street trees are routinely neglected or damaged due to lack of understanding of proper tree care, misunderstandings about who is responsible for care, or through vandalism. 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. Trees on private property are the responsibility of the property owner.

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 for this report.

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The following agencies either did not respond to the reporting form or chose to not participate: City College of San Francisco, Golden Gate National Recreation Area, San Francisco Housing Authority, Presidio Trust, and San Francisco Redevelopment Agency.

There may be other agencies that manage portions of the urban forest that were not contacted for information.

Department of Public Works, Bureau of Urban Forestry (BUF)

Total bureau budget: \$19,686,495

Total urban forest budget: \$5,076,517

The Department of Public Works, Bureau of Urban Forestry, has jurisdiction over all trees in the public right of way. BUF actively manages about 40,000 trees and estimates that there are approximately 110,000 street trees in San Francisco, over which they have jurisdiction.

On San Francisco's Arbor Day, March 14, 2009, BUF announced the completion of the Trees for Tomorrow campaign to meet Mayor Gavin Newsom's promise of planting 25K trees in 5 years. The successful program exceeded this goal and resulted in the planting of 26,408. The completion of this program and significant staffing losses are the most significant changes reported by the Department since the 2008 Annual Urban Forest report.

BUF's major programmatic activities associated with urban forestry are:

- Tree planting and establishment
- Tree maintenance and emergency response
- Issuing tree planting and removal permits, and sidewalk landscaping permits
- Tree and sidewalk inspections and evaluations
- Landscape maintenance and planting
- Sidewalk maintenance around trees
- Curb ramp building
- Tile setting and various plaster building repairs

These programmatic activities are divided among three working groups: Trees, Landscape, and Cement. Each group has three class I supervisors and one class II supervisor who develop plans for the group with input from the urban forester, assistant superintendent, and superintendent. The Department has lost 15 staff positions since the last reporting cycle. Currently, DPW has a total of 130 staff working for the Bureau of Urban Forestry. However, this includes numerous part-time or temporary employees, as well as a significant number of staff in the cement shop; it is important to note that although the cement shop is housed within the Bureau of Urban Forestry, they also perform work that is not Urban Forestry related. There are only 12 full-time arborists for tree maintenance work, only 3 positions for inspections of trees and all permit issuance, and only 7 half-time and 1 full-time watering and young-tree establishment staff. Additionally, because watering crew schedules were cut in half in January, to compensate for this loss, the Department was forced to reallocate staffing time from other services to ensure young tree care needs were met.

Tree maintenance and planting

From Arbor Day 2007 through Arbor Day 2008, DPW planted 862 trees and contracted the planting of another 1,113 trees. About 40,000 street tree locations are maintained by DPW arborists, laborers, and environmental service workers. Maintenance includes pruning and removal. Planting includes weekly watering, weeding and adjusting stakes to ensure survival until trees are established. Tree crews also provide services to other agencies through interdepartmental work orders. It's important to note that although DPW lacks adequate funding and staffing levels to maintain the trees that they are responsible for, they must assign staff to perform work that is the jurisdictional responsibility of other agencies to ensure that they are able to maintain those staff positions.

Landscape maintenance and installation

There are over 200 acres of landscaped medians, other right-of-way locations, and civic plazas that are maintained by crews of gardeners, laborers and environmental service workers. Maintenance includes trash pickup, weeding, hedging and pruning, and irrigation as needed. Landscape installation includes planting and installation of irrigation systems, weed fabric and mulch. Landscape crews also provide services to other agencies through interdepartmental work orders.

Inspection, permitting and education

DPW is responsible for processing all permits for street tree planting and removal, and for significant and landmark tree removal and sidewalk landscaping, as well as inspections for tree maintenance and sidewalk repair needs. The urban forester and arborists inspect locations, update and track databases for tree work and permits, distribute educational materials, and attend community meetings to better inform the public and decision makers regarding street tree maintenance and planting.

DPW is required to implement and enforce multiple municipal, state and federal codes.

- Article 16 of the Public Works Code, which includes permitting for street tree planting and removal, and enforcing fines for tree damage and unauthorized removals
- California State Title 24 and the federal American with Disabilities Act (ADA) requirements regarding pedestrian accessibility of sidewalks with regard to street trees and tree-related sidewalk damage
- Planning Code Section 143 requiring a street tree for every 20 feet of sidewalk in certain land use and permit situations
- DPW Order 169,946 and ISCOTT guidelines for street tree placement and maintenance

Sidewalk repair

- DPW crews of cement masons and laborers repair sidewalks lifted by tree roots of DPW-maintained street trees. Cement crews also provide services to other agencies through interdepartmental work orders.

Funding

The DPW urban forestry budget comes from a variety of sources including the city's general fund, sales tax from Prop K, state gas tax, and fees and fines. In fiscal year 2008–2009, BUF received:

Income by Source	Funds
General Fund for planting and maintenance	\$1,214,726
Sales Tax (Prop K) for planting and maintenance	\$974,000
Sales Tax (Prop K) for sidewalk repairs	\$768,139
Permit fees	\$119,334
Adopt-A-Tree Fund (citations)	\$152,408

For fiscal year 2007–2008 urban forestry related activities:

Expenditure by Use	Funds
Tree planting and establishment	\$1,691,566
Mature tree maintenance	\$2,616,740
Sidewalk repairs	\$768,211

Challenges

BUF is extremely concerned with securing reliable and adequate funding sources for maintenance of street trees and landscaped medians to ensure proper levels of long-term maintenance. In order to plan for the increased maintenance burden of all the recently planted trees, there should be a significant increase in the number of full-time arborists (2.5x the current staffing or 30 total arborists), and an increase in the tree evaluation and inspection staff. In addition, there is a need for additional staff for watering and young-tree establishment.

In addition to their existing Street Parks program, BUF would like to establish an “Adopt-A-Tree” program to involve individuals in everyday watering and establishment needs of newly planted trees. BUF would like to reduce the time between routine maintenance to three years and would like to see the City assume care for all trees in the public right of way.

Recreation and Parks Department (RPD)

Total departmental budget: \$136,400,000

Total urban forest budget: \$3,247,000

Tree planting and management

RPD maintains an estimated 100,000 trees in San Francisco in 4,113 acres of public parklands. RPD currently has 30 dedicated tree care staff broken into six crews: four tree care crews and two reforestation crews, as compared to last year's 32 staff for five crews.

RPD has undertaken several site studies, although many are outdated. They have issued an RFP and secured a contractor, HortScience, to complete work for the Clean and Safe Neighborhood Parks Bond, passed by voters in 2008. The contractor will perform an overall review of RPD's trees to determine the areas with the highest needs, review these sites and create site assessments and work plans, and engage in long-term urban forestry planning. In addition to the bond, RPD has allocated supplementary funding for certain portions of the work performed by the contractor.

Funding

RPD's tree management budget is funded with \$1.976 million from the General Fund and \$1.271 million from the Open Space Fund. Additionally, the Clean and Safe Recreation and Parks General Obligation bond has a set aside of \$4 million for urban forest work. While the bond will help address some of RPD's most pressing urban forest needs, the level of funding supplied by these bond sales will not be able to fully address the existing and future needs created by chronic underfunding of RPD's urban forest programs.

Challenges

Recreation and Parks does not have adequate staffing to properly manage their trees and is challenged with both an over-aged forest and vandalism of newly planted trees. Staff reductions have exacerbated these challenges. As reported last year, each member of each tree care crew is needed for the crew to operate safely and effectively. If one member of a crew is unable to work due to sickness or other leave, the entire crew may not be able to work on trees that day at all. To address this, RPD would need to increase the size of each crew to ensure that they are able to adhere to their work schedules regardless of a staff member's absence. Additionally, RPD reported unmet equipment needs.

Department of Public Health

The Department of Public Health did not participate directly through the greater administrative body, although two individual facilities chose to participate.

Laguna Honda Hospital (LHH)

Total urban forest budget: \$20,000

The Laguna Honda Hospital is located at the approximate geographic center of San Francisco on 62 acres; roughly half of this area is open space. The 1200-bed hospital has provided long-term care for over 135 years and is surrounded by aesthetically appealing mature vegetation. At present, the vegetation at LHH is comprised of eucalyptus forest, grasslands, manicured lawns and horticultural plantings. The hospital maintains approximately 3,000 trees, 80% of which are located in open space areas. The hospital campus offers safe and beautiful trails to staff and the public, which are accessible by mass transit and private vehicles. The hospital is required to issue Environmental Impact Reports.

Funding

Tree work is generally focused on emergency tree care. LHH contracts with the Recreation and Parks Department to perform the majority of the care provided to their trees; typically contracting one week of full-time work for one RPD crew per year costs LHH approximately \$20,000.

Capital funding for hospital replacement project includes one-time funding for landscaping, including some tree work.

Challenges

The greatest need is manpower and funding to maintain existing trees and improve open space. Mature trees, particularly the large eucalyptus tree groves, are approaching the end of their average life spans. Basic forest management, such as selective thinning and hazardous tree removal, would enhance and protect the existing forest and wildlife communities, as well as the recreational experience on the site. In addition, there are many ecological restoration possibilities for the woodland, grassland and creek areas. Historically, this area (Florida Valley) supported a creek and riparian habitat. Possible projects range from small and inexpensive to large and costly. Finally, trail improvements could include linkages between disconnected trails, additional landscaping, signs and/or paved surfaces. LHH trees require professional evaluation and future planning efforts, although the hospital lacks the expertise and financial resources to do so. LHH estimates that they would need \$200,000-\$300,000 to properly manage their trees.

General Hospital (SFGH)

No dedicated urban forestry budget

General Hospital comprises a total of 23 acres, with trees located throughout.

Tree planting and maintenance

SFGH has two full-time garden staff and four as-needed garden staff; necessary care and removal of large, mature trees is contracted through DPW when funds are available. Annual pruning of 60+ sycamore trees has been abandoned as these trees will be removed as part of the hospital retrofit project. Additionally, the hospital retrofit is affecting two coast live oaks and one palm; the hospital is attempting to move these trees to new locations on the campus, instead of removing the trees entirely. Currently, tree work is focused on issues related to public safety.

Funding

The hospital has no dedicated urban forestry funding. When funds are approved for tree work, the work is contracted through DPW.

Challenges

Gardener staffing levels have been inadequate for some time and there are no arborists on staff. In the past, the hospital had seven gardening personnel. Although the management area has not decreased, the number of staff has. Additional concerns center around the many trees that will be lost during the hospital retrofit project.

The Port of San Francisco

Total departmental budget not provided

Total urban forest budget: \$14,000

The Port of San Francisco is responsible for managing 7½ miles of the San Francisco shoreline stretching from Hyde Street Pier in the north to India Basin in the south. There are around 2,300 trees in the combined open and landscaped area of approximately 50 acres of parks, wetlands, and open space, and about 10 miles of streets. Within the Port's management framework, the Maintenance Department is responsible for the care of approximately 1,600 street and park trees while the Department of Public Works has maintenance responsibility for approximately 700 trees within the Port's jurisdiction, mainly along the Embarcadero sidewalk and median.

Tree planting and maintenance

While The Port's urban forest, in and of itself, is not a major program area within their landscape maintenance program, they do have two full-time gardeners who are both certified arborists. The Port's two gardeners are responsible for landscape maintenance at seven parks, the portion of the BlueGreen Way within the Port's jurisdiction, the Pier 96 Wetlands, approximately 10 miles of streets, and all Port facilities. The Port utilizes the Department of Public Works, Bureau of Urban Forestry, to evaluate tree condition, recommend tree removals, recommend tree species for planting, and to provide tree maintenance services when a crew of arborists is required, while minor maintenance is performed in-house.

The Port adheres to the following policies:

- City and County of San Francisco, Department of the Environment - Integrated Pest Management Program (Legislation Chapter 39, Section 39.6)
- Bay Conservation Development Commission Guidelines – Objective number 3
- Department of Public Works Bureau of Urban Forestry – Tree planting and removal Policies 169 and 946.

Also note: Bay Conservation Development Commission Regulation Number 3 mandates that large trees (over 20 ft tall) cannot obstruct the view of park waterfront.

Funding

This year, the Port began funding an interdepartmental work order to DPW to support the care of their trees. Previously, work with DPW was contracted on an as-needed basis. The Port indicated that they believe the new work order will help ensure a more timely response in emergencies.

Challenges

Port of San Francisco trees and vegetation face severe health challenges. Staffing and funding levels prevent having a tree maintenance program that provides for regular scheduled maintenance versus reactive maintenance. Many of the trees show signs of poor care and maintenance during infancy, such as leaning owing to improper staking and constant wind. The main limitation is competing maintenance needs that continually push the trees down the priority list. Considering the harsh environment, especially along the south waterfront, most trees planted cannot survive the winds, sea salt, pollution, lack of irrigation, and vandalism. The development of an urban forest plan for the Port would be ideal. The gardeners have begun the task of conducting a block-by-block analysis of trees

(species, condition, recommended maintenance cycle, special needs, etc) with the intent to utilize the data to develop a maintenance plan. Another limitation is that the Port does not have someone with urban forest expertise on staff. This expertise would be very constructive during tree evaluations and in developing an urban forest plan.

The Port's two gardeners are not adequate staffing to maintain 1,600 trees. The acquisition of additional staff, materials and supplies is necessary to support urban forestry and greening activities. Without an urban forestry plan, it is very difficult to estimate the staffing and funding requirements. However, if it cost \$200 dollars per tree to perform routine maintenance, the total needed would be \$320,000.

Treasure Island Development Authority

Total departmental budget: \$10,000,000

Total landscaping budget: \$900,000

Treasure Island Development Authority (TIDA) is responsible for maintaining Treasure Island and Yerba Buena Island. TIDA cares for approximately 2,000 total trees, with approximately 1,500 trees located on the 400 acres of Treasure Island and 200 trees on the 50 acres of Yerba Buena Island.

Tree planting and maintenance

TIDA has approximately one full-time staff member dedicated to urban forestry work, whose responsibilities include reviewing requests from the public and responding as budget allows. TIDA also works informally with the Native Plant Society. Their primary concern is ensuring public safety and managing fire risks.

Funding

TIDA identified that they have a \$900,000 landscaping budget, which includes urban forestry work.

Challenges

TIDA indicated that they have no challenges at this time.

San Francisco Planning Department

Total departmental budget not provided
No dedicated urban forest budget

The San Francisco Planning Department's mission is "To guide the orderly and prudent use of land, in both the natural and built environments, with the purpose of improving the quality of life and embracing the diverse perspectives of those who live in, work in, and visit San Francisco." While the department does not directly plant or maintain the urban forest, this resource is key to much of their work.

General Plan and Policy Development

The Planning Department maintains and administers the city's General Plan, which identifies community objectives for which some level of consensus has been reached. This document not only outlines the community objectives, but also provides a framework for decision making when goals' conflict. The Urban Design Element and the Recreation and Open Space Element contain policy direction specifically concerning the city's urban forest. Many specific Area Plans in the General Plan and Implementation Plans (such as the Downtown Streetscape Plan) articulate the high value of trees in the San Francisco.

The Better Streets Plan continues to move forward; however, the Urban Forest Master Plan was put on hold given funding obstacles. Efforts could be resumed as soon as funds are identified. The Commission on the Environment and the Urban Forestry Council have expressed the great need for the completion of the Urban Forest Plan and have urged the Planning Department and City policy makers to place a high level of priority on this work.

Funding

The Planning Department has no budget for street tree planting or for maintenance, although they are currently involved with two city-wide planning efforts that will affect the urban forest. A draft of the Better Streets Plan was recently completed and is now open for public review and comment; work on the Urban Forest Plan, as mentioned above, is on hold pending future funding.

Challenges

Lack of interagency coordination and lack of clear objectives limit the overall planting opportunities for San Francisco. Existing maintenance strategy is fragmented, which limits the city's ability to have a truly world-class urban forest. While these issues are not necessarily within the Planning Department's jurisdiction to remedy, the Urban Forest Plan, once resumed, will provide recommendations for addressing these concerns.

Public Utilities Commission's City Distribution Division (PUC-CDD)

No dedicated departmental budget

No dedicated urban forest budget; \$154K was work ordered to RPD in fiscal '08-'09

San Francisco's Public Utilities Commission's City Distribution Division (PUC-CDD) maintains, conservatively, 5,000 trees on about 1,000 acres of land in San Francisco at reservoirs, pump stations, in the public right of way, along sidewalks, in maintenance yards and in open spaces. Other SF PUC Divisions reported that they do not have active urban forest programs within City boundaries.

Tree planting and maintenance

The PUC-CDD has one staff dedicated to urban forestry work, the Forester, who works with one Buildings and Grounds Superintendent and a Pest Control Specialist, with additional support from gardening staff. In addition, PUC-CDD contracts with RPD for tree pruning and removals, with Friends of the Urban Forest for street tree planting and young tree pruning, as well as with various contract vendors for tree pruning, removal and planting. The PUC-CDD works with the private company HortScience to complete tree assessment reports when needed and when funding allows.

PUC-CDD trees have been severely affected by pine pitch canker. The PUC-CDD has been forced to focus the bulk of its resources on mitigating the effects of this disease and on other hazard abatement efforts such as trimming and removal. The PUC-CDD has also focused attention on tree work related to the Water Supply and Improvement Plan. The PUC-CDD has been limited this year in the level of pruning and removal it has been able to contract out due to purchasing restrictions, but has worked with DPW on street tree planting and maintenance at the University Mound Reservoir.

Funding

In fiscal year 2007–2008, the PUC-CDD reported a total urban forest program budget of \$329,800 plus one forester position, and supervisory staff and gardening staff as needed. For fiscal year 2008–2009, they report an undefined budget for urban forestry programs.

Challenges

The PUC-CDD is extremely concerned with the death of Monterey pines infected with pine pitch canker as well as the overall senescence of their forested areas in general, and the liability and costs associated with these conditions.

The PUC-CDD emphatically stated that they do not have the staff to address these concerns. Because PUC-CDD staffing is extremely limited, they are forced to contract work with other agencies and private companies; however the process to hire either the Recreation and Parks Department or a private company is cumbersome. To ensure public safety through properly managed trees, the PUC-CDD requires a larger budget for contract work with RPD. To address long-term needs, the PUC-CDD requires additional staffing of a dedicated three-person tree crew along with equipment and vehicles to care for existing trees and an additional gardener dedicated to planting, watering, and maintenance of new trees.

San Francisco Municipal Transportation Agency (SFMTA)

No budget information was provided

SFMTA did not respond to this year's report. The following information is from the last reporting cycle.

SFMTA maintains street trees and landscaped areas adjacent to Muni facilities and associated rights of way, including Forest Hill station, Woods Division Metro, Metro annex, West Portal, Keith Sub-station, Potrero yard, Quintara, Presidio yard, Kirkland yard, Illinois Sub-station, La Playa terminal, Flynn facility, Scotts garage, 700 Pennsylvania Ave, 1580 Burke Ave, Cable car landscape, Carl & Cole landscape area, Geneva–Munich landscape area, J-line landscape area, Russia-landscape sub-station, Metro Maintenance East (MME) LRV yard, Embarcadero LRV and F-line rights of way.

Challenges

SFMTA is currently understaffed; in the past they had four staff performing the same workload that two staff positions are now required to do. They are concerned with safety in maintaining clearance of catenary power lines and with providing young tree care. They are also concerned with coordinating maintenance with other city departments and agencies. They require additional staff and supervisors.

San Francisco Unified School District (SFUSD)

Total departmental budget not provided
Total urban forest budget: \$50,000

The San Francisco Unified School District maintains approximately 430 acres and 3,000 trees in locations throughout the city.

Tree planting and maintenance

SFUSD's primary tree care goal is to care for their trees in an aesthetically pleasing way that also addresses the needs of safety, accessibility, and visibility, with safety as their highest priority. SFUSD currently has a staff of 14 gardeners, one truck driver and one landscape manager to maintain all school district campus sites. Campuses with football fields have permanently assigned gardeners, while those without have a rotating garden crew. Gardening staff lack the equipment to properly maintain the District's large trees, and only work on young, newly planted trees. In addition to gardening staff, the District works with volunteers and Friends of the Urban Forest, as well as contractors for larger pruning and removal needs.

This year, the District launched the 2012 by 2012 tree planting campaign to plant 2,012 trees by the end of 2012. SFUSD is partnering with Friends of the Urban Forest, the green Schoolyard Alliance, and the Mayor's Office of Greening to accomplish this goal. There are three possible funding sources for this program including bond funding, MOCI grants, and donations, although all funding until now has been through PTA fundraising and donations to the 2012 website. Some corporate donations of matching funds are anticipated. A total of \$5,545 has been raised so far. More information on this program can be found at www.2012by2012.com.

Funding

SFUSD has a static budget of \$50,000 dedicated to urban forestry work, which has not been adjusted, even for inflation, in about 5 years. Before that, the urban forestry budget was \$35,000.

Challenges

SFUSD is highly concerned with the safety of trees in their jurisdiction. As noted above, they face great funding challenges in their drive to achieve proper management. Beyond their current staff, they require an additional 16 gardeners, a four-person tree care crew, tree crew equipment, an increase in their annual urban forestry budget to \$100,000, and \$50,000 in other equipment needs.

In addition to these ongoing needs, the District has an immediate need to address over 200 diseased Monterey pine trees that are an imminent danger to students. Of the 383 Monterey pines on District campuses, roughly 262 are infected with pine pitch canker. Of the infected trees, 207 have the potential to fall on the yards, buildings, and other areas where students gather. The District requires immediate funding of no less than \$400,000 to mitigate the impending effects of these hazard trees and to ensure student safety.

University of California, San Francisco

Total departmental budget not provided
Total urban forest budget: \$100,000

UCSF manages approximately 7,500 trees on roughly 200 acres of land. Of the trees they manage, an estimated 5,000 are located within the Mount Sutro Reserve, with the rest on other campus sites.

Tree planting and maintenance

The Facility Management Department is responsible for planting new trees and for pruning and removing hazardous trees and limbs. This is done for public street trees in and adjacent to campus sites, campus open spaces, and Mount Sutro Open Space Reserve. In addition to staff, UCSF has a Community Advisory Group (CAG) and CAG action teams (CATs) at their Parnassus Heights and Mission Bay campuses, which are comprised of community members and are open to the public. UCSF also sponsors public meetings, as needed, to inform the public and obtain feedback on proposals.

Similarly to last year, UCSF reported that their primary concern is with the overall health of the eucalyptus forest and with potential for wildfire in this area.

UCSF adheres to three separate policies and guidelines:

- 1) The Mount Sutro Open Space Management Plan
- 2) A street tree removal public notice policy
- 3) Mission Bay Campus Master Plan and Design Guidelines in which landscaping for the new campus is addressed.

Funding

Last year UCSF reported that they receive money from the State of California under the Operations and Maintenance Funding for Grounds Budget and part of this funding is used for tree maintenance. They did not provide any funding information in this year's survey.

Challenges

UCSF has no dedicated urban forestry staff and is highly concerned with securing adequate resources to address hazards both from falling trees and wildfire.

UCSF is in the processing of seeking grants and other funding sources to address these concerns. They estimate that they require \$250,000 per year for maintenance, tree and shrub removal, and new plantings.

San Francisco Airport (SFO)

Total departmental budget not provided
Total urban forest budget: \$30,000

SFO maintains approximately 2,500 trees on about 500 acres of land including parklands, freeway rights-of-way, and wild and protected areas and airfields.

The current landscape at the airport includes the area directly west of the International Terminal, an area that is composed mainly of *Sequoia sempervirens*, *Cercis canadensis*, *Podocarpus gracilior* and various shrubs such as *Rhododendron* varieties and *Carpenteria californica*. Additional areas include the east side of Route 101 between the airport entrance roadways and the San Bruno Avenue interchange, the entire cloverleaf area of the interchange and the new Bay Trail landscaping north of San Bruno Avenue.

Other urban forest areas are spread throughout the airport property including a residential area in Millbrae, the 6-acre Bayfront Park in Millbrae and a 180-acre site west of Bayshore, which is forested with eucalyptus, cottonwood, willow and various other species. This is an environmentally sensitive area that is home to the San Francisco garter snake and the red-legged frog.

Tree planting and maintenance

The airport's urban forest-related activities vary, since the landscaping ranges from designed, high maintenance locations with irrigation, to natural areas that only require monitoring and responding to disease or hazards. In general the airport oversees its urban forest using pruning and maintenance standards set by the San Francisco Urban Forestry Council. SFO currently has 18 full-time garden staff, one fewer than last year, who include urban forestry related activities in their daily work schedules.

Operations are divided into three groups: landscape maintenance, design and construction and integrated pest management. Each group has an operations manager with support staff assigned work daily derived from general planning based upon seasonal forecasts and senior management directives.

SFO adheres to many state and local mandates including the following:

- Caltrans landscape guidelines that detail specific planting and maintenance requirements along California freeways
- California Department of Fish and Game Endangered Species Act, which defines general responsibilities when working in the habitats of endangered species
- Agreement between San Francisco International Airport and the California Department of Fish and Game relating to the area west of Bayshore, which addresses specific requirements when working around the known habitat of the San Francisco garter snake and red-legged frog
- California Code of Regulations Division 6., Pesticides and Pest Control
- Chapter 39, San Francisco Administrative Code concerning IPM
- San Mateo County Department of Agriculture mandate to supply monthly pesticide use reports
- San Mateo County Mosquito Abatement District requirements and controls

SFO reports that all plants are appropriate for their environment, that they receive optimum care and that the principles of Integrated Pest Management are applied, limiting the amount

of toxic chemicals and pollutants used and released into the air and groundwater in the airport environment.

Further, the Landscaping Department has the full support of senior management and the surrounding communities, which insures there are no limitations to accomplishing their mission to provide an efficiently operated landscape, which provides a pleasurable and safe experience for the traveling public, employees, and neighbors through personal contact and by enhancing the appearance of the airport; and meeting their commitment to reducing the amount of toxic chemicals and pollutants used and released into the air and groundwater in the airport environment.

Challenges

SFO is the only participating organization or agency who reported that they have the resources they need to properly manage the trees and landscaping under their jurisdiction.

Friends of the Urban Forest (FUF)

Total organizational budget: \$1,070,437

Total urban forest budget: \$791,800

Friends of the Urban Forest is a nonprofit volunteer-oriented organization that coordinates neighborhood plantings and provides young tree maintenance, as well as various training and educational programs. Since the organization's inception, FUF has planted approximately 43,000 trees in the public right of way including public sidewalks, public schools, public parks and public stairways and undeveloped streets of San Francisco. FUF's mission is: *To promote a larger, healthier urban forest as part of the urban ecosystem, through community planting, maintenance, education and advocacy.*

Tree maintenance and planting

FUF's major program areas are as follows:

- Community-based tree plantings
- Scheduled and emergency tree care through trained volunteers and a paid Youth Tree Care Program
- Educational opportunities including pruning workshops, tree tours, Citizen Forester Program and internship program

Work plans for FUF's 11 staff members are determined in September. While FUF may not have a complete picture of its funding for the following year, all scheduled tree care is planned out. Emergency or on-call tree care can be anticipated year-round and, to some degree, will be in higher demand between Christmas and the New Year. Neighborhood tree plantings are planned to occur two to three times per month throughout the year. Certain grants may obligate FUF plantings to specific neighborhoods, but the determining factor for choosing a neighborhood to plant is typically resident interest – a critical mass of around 30 property owners. FUF's Youth Tree Care Program operates four sessions per year focusing their work typically in the southeastern portion of the City.

FUF is a member of the national non-profit group Alliance for Community Trees (ACT). ACT provides support to organizations such as FUF through small grant opportunities and educational workshops. California ReLeaf serves a similar role to ACT on the state level.

Cal Fire (California Department of Forestry and Fire Protection) provides information on urban forestry and is a granting agency that supports urban forestry efforts, while requiring that projects that receive the granted moneys do not supplant/replace previously funded urban forest projects.

FUF works closely with the Department of Public Works, Bureau of Urban Forestry, in situations where the sidewalk conditions are inconsistent with the current tree placement requirements and require review. In years past BUF has presented RFPs that have on occasion resulted in funding for FUF to plant trees, provide tree care and educate the public on the value and benefits of trees.

FUF works with the volunteers to plant and maintain trees as well as provide support and advocacy to neighborhood groups.

Funding

Funding for the year's activities is only partially known at the beginning of the year. Grant writing, membership drives, and high donor support along with some corporate and foundation sponsorship become available throughout the year to support the minimum work plans that are initially developed. Strong board and staff efforts often enable FUF to go beyond minimum levels to plant and care for more trees.

Friends of the Urban Forest's annual budget is based on the calendar year. The following charts are a breakdown of income and expenditures for the 2009 calendar year.

Income	
City of San Francisco	\$266,998
State of California	\$178,000
Foundation Grants	\$286,603
Private Donations	\$338,836

Expenditures	
Tree Planting	\$506,800
Tree Care	\$175,500
Education	\$109,500
Other Expenses	\$278,637

Challenges

Because funding is not stable, the extent of activities in each area of FUF's planting, tree care and educational programs vary.

In the past fiscal year, FUF has reduced staff salaries, hired part-time temporary employees to replace full-time staff, increased focus on community organizing, and reduced public promotion event appearances to focus on income-producing activities.

With the loss of funding, Friends of the Urban Forest has had to continually increase the property owner's cost to plant a tree. The organization is seeking ways to increase their funding to make it possible for them to reduce the property owner's planting cost to \$75.00 per tree; lowering the individual per-tree cost of planting may enable expansion of the program in lower-income areas. Additional funding would also allow for improved tree maintenance efforts, an important concern considering the increased planting efforts of the past two years.

FUF's largest concern currently is the protection of our existing urban forest. FUF reports that fewer trees are being planted than are being lost through the natural attrition of the urban forest, illegal tree removals and illegal pruning and that improper pruning of city trees is becoming a larger problem. Often, trees are not able to recover from poor pruning, as rehabilitation requires attention and care that many tree care stewards do not possess. A public education campaign for proper tree care is very important at this time. In addition, BUF and FUF are currently planning and beginning to address illegal pruning. However, for these programs to take effect and be effective, FUF will require increasing available staff hours.

FUF would like to assist the City with pruning all of their recently planted trees. This would increase FUF's current scope, and they would require funding for materials, vehicles, and staffing to successfully train and equip tree care teams.

FUF is not adequately funded to provide the level of care required for the portion of the urban forest they manage. FUF believes that the low cost of pruning young trees will produce a healthier tree that will require less maintenance in the long term, as the cost to prune a small tree is relatively inexpensive and reduces the need for major corrective pruning later. To be able to provide a standard tree care visit to all trees at 3 years after planting, FUF requires consistent funding sources. FUF would also like to standardize a final tree care visit 5 years after planting. FUF currently provides a visit to all the trees it plants 2 months after planting to ensure a level of quality control, as well as a follow-up visit between 12 and 18 months after planting.

FUF needs to hire at least 1 and ½ full-time employees in addition to the two full-time positions providing tree care. With these additional staff, FUF can double its tree care activities. In addition to staffing requirements, there would be equipment needs to meet. A draft budget for this work, which would be additional to the existing tree care budget, is provided below.

Draft Budget for Enhanced FUF Tree Care Program

1.5 FTE Tree Care Coordinator + fringe at 23%	\$84,000
1.5 Truck + insur. + fuel + annual maintenance	\$26,000
Tools (incl. loppers, ladders, reach pruners, etc.)	\$10,000
<u>Materials [incl. stakes (1@\$9ea. X 3,000), tree ties, etc.]</u>	<u>\$30,000</u>
Preliminary Program Expense:	\$150,000

California Department of Forestry and Fire (Cal Fire)

No budget information was provided

The California Department of Forestry and Fire Protection administers grants associated with Propositions 12, 40, and 84 funds. Cal Fire does not directly plant or maintain any trees in San Francisco, although the agency does provide grant funding for tree planting programs, urban forest research programs and projects to local organizations and stakeholders.

Tree maintenance and planting

Cal Fire's nine staff positions include one state urban forester, seven regional urban foresters (one of which is assigned to San Francisco), and one program analyst. The state urban forester coordinates work plans that are created by the program staff for each of their own geographic areas of responsibility.

Cal Fire's major program areas are:

- Fire protection
- Fire prevention
- Forest practice regulation
- Forestry assistance
- Environmental quality review
- Urban forestry

Cal Fire plants at least 11,000 trees via grant agreements annually statewide.

In addition to grant giving, Cal Fire serves as a resource for technical expertise and education at various levels.

Funding

Cal Fire has three active grants in San Francisco that total \$806,480. Two of these grants are with Friends of the Urban Forest: \$500,000 for the Urban Forest Mapping Project and \$221,500 for tree planting. The final grant is with Life Frames Inc., also known as A Living Library, for \$84,980 for tree planting.

Challenges

Cal Fire's greatest concerns address statewide issues and are not necessarily particular to San Francisco: that urban trees are not always considered to be part of a city's infrastructure and that plans to protect trees during development may be inadequate. They are also concerned with the level of care public trees receive, confusion over who is responsible for providing care for public trees, and whether or not the trees within each department's jurisdiction are being properly cared for by that department. Cal Fire does not believe these issues can be adequately resolved at the local level, but the organization lacks funding to institute projects that could resolve these concerns. While Cal Fire believes they do have adequate staffing to meet their current work requirements, they require more funding; a total of \$20 million per year.

Additional SF Urban Forest Policies and Initiatives

Landmark Tree Ordinance

In 2006, the Board of Supervisors passed the Landmark Tree policy and the Significant Tree policy amendments to the Urban Forestry Ordinance. In 2008, the Landmark Tree Ordinance was revised to include notification requirements, and then again revised later in the year to improve the criteria for selection.

Significant trees are automatically protected trees on private property that are within 10 feet of the public right of way and have reached one of three size requirements:

- At least 15' tall
- A canopy of 20' or greater
- A DBH of at least 12"

Because these trees are of a notable size and are close to the street or sidewalk, even though they are on private property, they require permits to remove.

The Landmark Tree Ordinance allows for the greatest level of protection enjoyed by any tree in the city. An individual ordinance is passed for each tree after an extensive process that ensures the tree's high value and benefits for the city. Trees can be nominated by five different parties: the Board of Supervisors, the owner of the property where the tree is growing, the Landmarks Preservation Advisory Board, the Planning Commission, and the heads of city departments and agencies. After a nomination is made, the Urban Forestry Council holds two public hearings. If the tree is accepted, the Board of Supervisors also holds a series of public hearings before the ordinance is given to the Mayor to sign. This year, the Landmark Tree Ordinance was amended to create noticing requirements and lengthen the temporary protection period that the trees benefit from during the nomination process. These protections allow civil, criminal, and judicial penalties for non-compliance.

Permeable Landscaping

The Board of Supervisors passed the Permeable Sidewalk Landscaping Permit process in 2006. The ordinance created a method by which property owners can increase the green space around their homes by allowing garden installations in sidewalk areas. The Urban Forestry Council recognizes the potential benefits these spaces have for the health and size of the urban forest and have sponsored a demonstration sidewalk garden project that was completed on Arbor Day 2009 at Sunset Elementary School.

Pruning Standards

The adopted professional pruning standards for San Francisco are based on tree care standards developed by the American National Standards Institute (ANSI) and the International Society of Arboriculture (ISA). Research on pruning standards in other cities yielded examples and templates that were applied to the San Francisco standards. Certain concepts are highlighted due to their importance and practicality; for example, 25% is the maximum amount of live foliage that can be removed from a tree each year.

An easy-to-use public pruning brochure with adopted pruning standards information was first published in 2005. Department of the Environment staff created the booklet in consultation with Urban Forestry Council members and Friends of the Urban Forest staff. It includes pruning concepts and instructions, pruning equipment, and the importance of hiring a professional arborist. The document underwent revisions in fiscal year 2007–2008, was reprinted in August of 2008, and is now available in hard copy or online through the Department of the Environment.

In the last fiscal year, the Urban Forestry Council has explored options to increase enforcement of illegally pruned trees. This work continues.

PG&E Utility Undergrounding

Pacific Gas & Electric (PG&E) is in the process of moving aboveground utility wires to below street level. One consequence of this process has been the loss of tree planting sites. The installation of sidewalk boxes and underground utility wires has resulted in the loss of potential planting locations due to the minimum distance requirements for street tree planting locations, which were designed to reduce tree/infrastructure conflicts. The addition of these utilities also displaces soil volume for trees. These conflicts are avoidable. To address this, the Urban Forestry Council and the Board of Supervisors passed resolutions recommending that tree planting sites be preserved during the undergrounding process. There were no enforcement details in the Board of Supervisors resolution, but the Department of Public Works (DPW) has the legal authority to direct PG&E on where to place its utilities.

Since the resolutions passed, PG&E has preserved some street tree planting sites and displaced others. The resolution was successful in that many contractors and subcontractors have contacted DPW's Bureau of Urban Forestry for walkthroughs and advice on retaining planting sites; prior to the BOS resolution, few contractors consulted DPW on tree planting sites. Unfortunately, there is no comprehensive information on the number of planting sites preserved and lost.

Recommended Street Tree List

In 2006, the Urban Forestry Council worked with DPW, FUF and private arborists to develop a list of recommended trees for San Francisco, which they then adopted at the end of that year.

This list is broken into three sections:

- The "A" list of proven species choices
- The "B" list of trees, which are good for some locations in the city but not appropriate for all microclimates
- The "C" list of trees, which are experimental and require further study before a judgment on whether or not they will be good species can be made.

The Urban Forestry Council reviews this list annually and updates it as new information and research becomes available.

Better Streets Plan

A draft of the Better Streets Plan is now available for review and comment. This plan recognizes the importance of including natural elements into the built environment for aesthetic, economic, and safety reasons. As such, the plan recommends many uses for right-of-way tree planting and landscaping. The plan does not detail or discuss species choices related to site specifics.

Urban Forest Plan

As noted earlier in this document, the Planning Department has put this important work on hold due to funding restrictions. The Urban Forestry Council urges that this project be considered a highest priority and funding reinstated so work may restart immediately.

For more information on regulations regarding street trees, see [Article 16 of the Public Works Code](#)

For more information regarding trees in areas under development or construction, see [Section 143 of the Planning Code](#).