PLANTING FOR WORKFORCE DEVELOPMENT

Participants in urban forestry workforce development programs are directly responsible for a significant percentage of the street trees planted, watered, and cared for in San Francisco each year.

Since 1981, the non-profit Friends of the Urban Forest (FUF) has planted about 60,000 trees, totaling almost half of the city's street tree canopy. FUF's Green Teens program provides paid urban forestry vocational skills training for youth in San Francisco, ages 14-18, from communities that are underrepresented or have historically been excluded from the environmental field. Over the course of two to three months, youth are trained in long-term employability and life skills, and they meet professionals in the field, such as certified arborists and landscapers. Several years ago, FUF launched the Green Crew program for young adults, ages 19-26, in partnership with San Francisco General Hospital's Wraparound Project, which focuses on helping survivors of violence. While in a part-time, paid positions for six months, participants learn best practices in the field of arboriculture with the opportunity to move to permanent full-time positions at FUF or other organizations in the environmental field.

The San Francisco Clean City Coalition (SF Clean City) is a non-profit that provides tree watering and landscape maintenance services to keep the City's public spaces safe and well-maintained, while providing comprehensive training and transitional employment to very low-income, formerly incarcerated, homeless and formerly homeless San Franciscans. Participants start in the Green Partnership Program receiving general greening training and can advance to the Green City Program where four trainees at a time work one-on-one with tree watering operators and receive paid weekly landscape training. In the last 15 years, these programs have employed more than 1,500 participants with the help of an extensive and established network of partners.

Tree planting continues to provide employment development opportunities even after the tree is in the ground. The workforce that is trained to plant a tree is also trained to water it until it's established and prune it so its structure is stable and suitable for City sidewalks. Since healhty trees live for many years, tree planting creates a demand for ongoing skilled labor to maintain and care for trees throughout their life cycle.

STREET TREE NURSERY

In order to significantly scale up street tree planting in San Francisco, the Bureau of Urban Forestry has developed plans to create a Street Tree Nursery. Located on a public parcel in the South of Market neighborhood, the nursery would allow for growing, storing and watering large numbers of young trees until they are ready for planting. Benefits of the nursery include job training, volunteer and educational opportunities as well as the chance to grow uncommon or unique tree species that are difficult to source from commercial nurseries, including some that promote biodiversity. BUF is currently working to identify funding for the initial nursery site improvements and ongoing operations.

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SAN FRANCISCO STREET TREE PLANTING STRATEGY

San Francisco Public Works' Bureau of Urban Forestry (BUF) is committed to preserving and growing the City's tree canopy. This strategy identifies the citywide street tree planting goal, planting priorities, resources and partners needed to increase street tree planting in San Francisco.

BACKGROUND

In 2016, San Francisco voters passed the Healthy Trees and Safe Sidewalks ballot measure (Proposition E) and significantly changed the way street trees are managed in San Francisco. Responsibility for street tree maintenance shifted from property owners to San Francisco Public Works. Since that time, Public Works' StreetTreeSF program has been working to ensure everyone in San Francisco can enjoy a safer, healthier and more beautiful urban forest.

To date, Public Works' StreetTreeSF crews have:

Pruned
40,000
street trees

Removed
6,800
structurally unsound, hazardous and dead street trees

Repaired & Replaced
535,000
square feet of sidewalks damaged by trees

Made Safe
40,000
sites that posed tripping hazards due to tree-related damage

STREET TREE PLANTING GOAL

The City of San Francisco's Urban Forest Plan set a goal of increasing the street tree population to 155,000 street trees over 20 years. 155,000 street trees would bring San Francisco to "full stocking" of street tree locations – filling existing empty basins and most new potential planting sites with trees.

To achieve this goal and grow our urban forest, we'll need to plant thousands of trees beyond our existing 125,000 street trees. These trees will be prioritized for planting in areas that need them most.

New street trees (30,000) are needed in neighborhoods with the lowest tree canopy cover and higher vulnerability to the extreme heat and air quality impacts of climate change.

Replacement street trees (50,000) must also be planted to prevent tree canopy loss in neighborhoods where trees are removed for maintenance reasons or die of natural mortality.

In total, 80,000 street trees – both new and replacement – will need to be planted over the next 20 years to reach our goal of 155,000 street trees.

Our goal is to have:
155,000
beautiful street trees by 2040

Current population of street trees:
125,000

+

Additional Trees Needed:
30,000 new trees
50,000 replacement trees*
*(estimated 2% mortality annually)

We can achieve our goal if we plant:
4,000
trees annually for the next 20 years

1,500 new trees
2,500 replacement trees

PRIORITIES & BENEFITS

Healthy tree-lined streets are a key component of San Francisco's larger urban forest, which includes parks and open spaces as well as private properties. Trees contribute to a more walkable, livable and sustainable city and play a vital role in the City's urban forest providing social, economic and environmental benefits. The priorities of this planting strategy and the resulting benefits are listed below.

SOCIAL BENEFITS

- Create memorable and beautiful places
- Connect people to nature
- Improve physical and mental health
- Reduce violence and crime
- Calm traffic and promote pedestrian/bicyclists safety

ECONOMIC BENEFITS

- Boost activity in commercial areas
- Increase worker productivity
- Reduce building heating & cooling costs

ENVIRONMENTAL BENEFITS

- Improve air quality & absorb pollution
- Slow climate change
- Decrease noise pollution
- Reduce stormwater runoff
- Provide wildlife habitat

PRESERVE & GROW

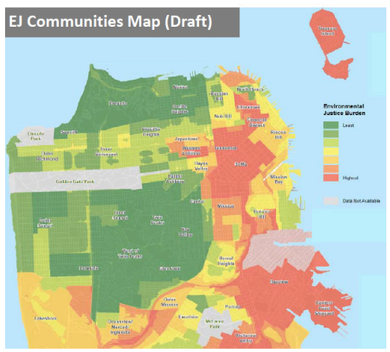
URBAN TREE CANOPY

San Francisco's tree canopy coverage - the amount of area covered by trees - lags behind most large U.S. cities at 13.7%. Planting street trees serves to preserve the existing canopy (replacing trees that must be removed) and to increase the City's overall tree canopy.

PROMOTE

CLIMATE RESILIENCE & ADAPTATION

San Francisco is projected to experience a variety of impacts associated with climate change including an increase in extreme heat days and air quality hazards. The most impacted communities are those that already carry the heaviest health burdens. Planting in neighborhoods with fewer trees and most prone to climate impacts will help create shade, reduce temperatures in "urban heat islands," and clean the air by absorbing pollutants and capturing particulate matter on leaves. Trees also capture and store carbon dioxide (CO_2) – the primary greenhouse gas responsible for climate change.



The San Francisco Planning Department's draft Environmental Justice Communities Map identifies areas of the City that have higher pollution rates and are predominately low-income. These communities face environmental justice concerns while also having some of the lowest tree canopy cover as well.

ADVANCE

RACIAL & SOCIAL EQUITY

Planting more trees connects residents in every community to the many benefits street trees and greener neighborhoods provide. Street tree equity will be prioritized by planting new trees in neighborhoods with the lowest tree canopy and fewest street trees. In San Francisco, this often correlates to communities of color and low-income communities that experience disparities in public health and historic patterns of resource disinvestment. San Francisco Public Works also seeks to benefit residents with limited access to job opportunities by providing employment and training in tree planting and watering.

COMMUNITY PARTNERS & FUNDING

Planting large numbers of new and replacement street trees as identified in this Strategy will require doubling the number of street trees planted annually over historic trends. An estimated 4,000 trees will need to be planted each year over 20 years to reach our tree planting goal of 155,000 street trees. Historically, San Francisco Public Works and its community partners have planted closer to 1,500 - 2,000 street trees annually.

Since the voter-approved funding for StreetTreeSF is intended for tree maintenance and can only be used for tree planting in a very limited way, Public Works is collaborating with community partners such as Friends of the Urban Forest and Climate Action Now! identify additional funding sources to carry out this expanded vision for street tree planting citywide.

HOW MUCH FUNDING DO WE NEED?

$8 million annually for the next 20 years to plant 4,000 street trees

HOW MUCH FUNDING DO WE CURRENTLY RECEIVE?

$2.15 million (total)

- **$1.2 million** Transportation Taxes
- **$500,000** Capital Improvement Fund*
- **$450,000** Adopt-A-Tree Fund

WHAT IS THE FUNDING GAP?

$5.85 million = $8 million - $2.15 million

in additional funding needed to carry out the Planting Strategy

AVERAGE COST TO PLANT & ESTABLISH A TREE

$2,200

- $550 to plant a tree
- $1,650 to water tree until established

*Budget uncertainties during the pandemic impacted BUF's internal crews and resources, contract work and financing of non-profit tree planting organizations. Additionally, funding cuts have impacted planting projections and goals and may continue to do so. Current financial resources for planting include $500,000 in capital improvement funding, down $300,000 from the average amount BUF has received in past years. To enable BUF to catch up on planting that did not occur during and after the COVID-19 crisis and be on pace with our long-term planting goal, BUF has requested the full amount of capital improvement funding possible for the next few fiscal years. Once we are on pace with the planting plan as outlined, the fluctuation in capital improvement funding requested and received will level out to the average amount typically dedicated to planting each year (approximately $850,000).

TREE PLANTING:

NEW JOBS AND SHOVEL-READY PROJECTS

The City's Street Tree Census (2017) identified up to 40,000 vacant street tree planting sites. These include vacant basins and potential planting sites that require clearance from underground utilities or other conflicts to be cleared for planting. The Bureau of Urban Forestry and Friends of the Urban Forest have been planting for decades and have the planting process down to an art. We are ready to plant any of the 40,000 potential sites at a moment's notice. All that is missing is funding. Funding will supply more trees from nurseries, help source more soil, tools, and trucks, and support the hiring of local people to plant, water and maintain trees across our City.