City of Los Angeles

URBAN FOREST MANAGEMENT PLAN

LOS ANGELES CITY PLANNING



[This page left intentionally blank]

DRAFT

City of Los Angeles Urban Forest Management Plan

PUBLIC COMMENT DRAFT

DRAFT

City of Los Angeles
Public Comment Draft Urban Forest Management Plan dated November, 2026

Table of Contents

Executive Summary 6
Chapter 1: Overview of the Urban Forest Management Plan 15
1.1 What is the Urban Forest? 15
1.2 What is an Urban Forest Management Plan? 17
1.3 Four Pillars of Urban Forest Management 19
1.4 Considerations of Regional Forest Management 27
1.5 UFMP Community Engagement Campaign 28
Chapter 2: Trees in the Urban Ecosystem 33
2.1 Community Feedback on Trees and the Urban Ecosystem 33
2.2 Understanding the Urban Ecosystem 34
2.3 Managing the Urban Forest for Climate Resilience 38
2.4 Opportunities for Urban Ecosystem Stewardship 43
Summary of Recommendations 47
Chapter 3: History and Governance of Trees in Los Angeles 51
3.1 Community Feedback 51
3.2 Managing the Urban Forest Across the City 52
3.3 Urban Forest Governance 60
3.4 Previous Urban Forest Assessments and Reports 63
3.5 City Structure Challenges and Opportunities 64
Summary of Recommendations 70
Chapter 4: Equity and Canopy Expansion 73
4.1 History of Equity-focused Research in Los Angeles 75
4.2 Next Steps for the City 80
Summary of Recommendations 87
Chapter 5: Tree Canopy Cover and Inventory Analysis 89
5.1 Tree Canopy Cover 89
5.2 City-Managed Tree Inventories 95
Summary of Recommendations 100
Chapter 6: Tree Planting and Establishment Care 101
6.1 Why Plant Trees? 101
6.2 Community Feedback on Tree Planting 103
6.3 Who Funds and Plants Trees? 103
6.4 Challenges and Opportunities for Tree Planting 106
Summary of Recommendations 116

DRAFT

Chapter 7: Tree Maintenance **121**
7.1 Why Maintain Trees? 122
7.2 Community Feedback on Tree Maintenance 123
7.3 Who Maintains Trees? 124
7.4 Challenges and Opportunities for Tree Maintenance 127
Summary of Recommendations 140
Chapter 8: Tree Preservation **145**
8.1 Why Preserve Trees? 146
8.2 Community Feedback on Tree Preservation 147
8.3 How Are Trees Protected? 147
8.4 Challenges and Opportunities for Tree Preservation 154
Summary of Recommendations 169
Chapter 9: Community Engagement and Public Education **173**
9.1 Why Conduct Engagement and Education? 174
9.2 Community Feedback on Engagement and Education 175
9.3 Who Funds and Conducts Engagement and Education? 176
9.4 Challenges and Opportunities for Community Engagement and Public Education 178
Summary of Recommendations 183
Chapter 10: Funding the Urban Forest **185**
10.1 Funding Assessments 185
10.2 Progress Requires Consistent, Reliable Funding 187
Summary of Recommendations 191
50-Year Strategic Plan **193**
Five-Year Implementation Plan **225**
Appendices **226**

DRAFT

Funding for this project has been provided by California Climate Investments through the California Department of Forestry and Fire Protection (CAL FIRE), Urban and Community Forestry Program.

The Los Angeles Urban Forest Management Plan Project is part of California Climate Investments, which uses billions of Cap-and-Invest dollars to fund projects that reduce harmful emissions, protect public health, strengthen local economies, and support natural environments. With a strong focus on communities most impacted by pollution and limited access to resources, California Climate Investments helps build a more equitable and sustainable future. For more information, visit the California Climate Investments website at: www.caclimateinvestments.ca.gov.

DRAFT

Executive Summary

The trees of Los Angeles' urban forest are integral pieces of living public infrastructure, and must be considered and treated as such. This Urban Forest Management Plan (UFMP) addresses the full urban forest of the City of Los Angeles (the City), which is estimated to include approximately 10 million trees within the City boundary of nearly 500 square miles. This includes trees on all land use types, including both public and private property:

- **Trees managed by the City** include roughly 660,000 trees in the public right-of-way, largely on streets along sidewalks or in medians, 138,000 trees in City parks, and an unknown number on City-owned or managed properties, including City facilities (such as libraries or City Halls) and land managed by the Los Angeles Department of Water and Power, the Los Angeles Harbor Department, and the Los Angeles World Airports.
- **Trees managed by non-City government agencies or nonprofit groups** include those on school campuses, in freeway easements, in California State and Los Angeles County parks, and in other parks or open spaces that are managed by conservation or other environmental nonprofit groups.
- **Privately-managed trees** include those in yards next to houses and apartment buildings, in commercial areas next to business, in parking lots, around places of worship, and other privately-managed land.

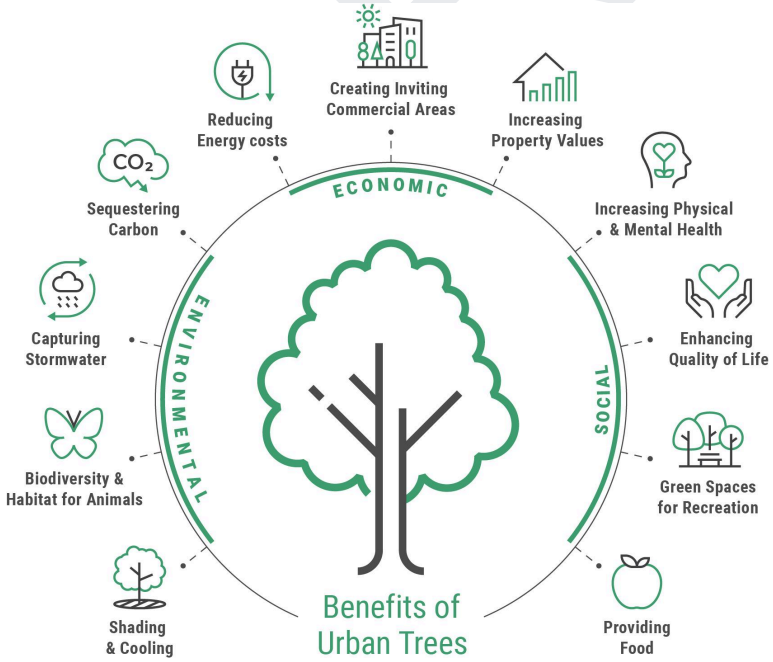
This UFMP is the first for the City, and has been supported over many years by individuals and groups both within and outside of the City. The UFMP is intended to act as a roadmap to guide how the City approaches design, oversight, and management of the urban forest. Four broad goals and 19 related outcomes are established in the UFMP's Strategic Plan, setting the City's ultimate aim for high-quality, equitable, and financially sustainable urban forest management. To achieve these goals and objectives, the recommended strategies and actions in the UFMP focus on planning for canopy and shade across City departments, growing new trees, maintaining and preserving existing trees, tracking progress and piloting innovation using data and metrics, developing and maintaining City policy, providing strong collaboration, education, and engagement, and establishing evergreen funding mechanisms.

DRAFT

UFMP STRATEGIC PLAN GOALS

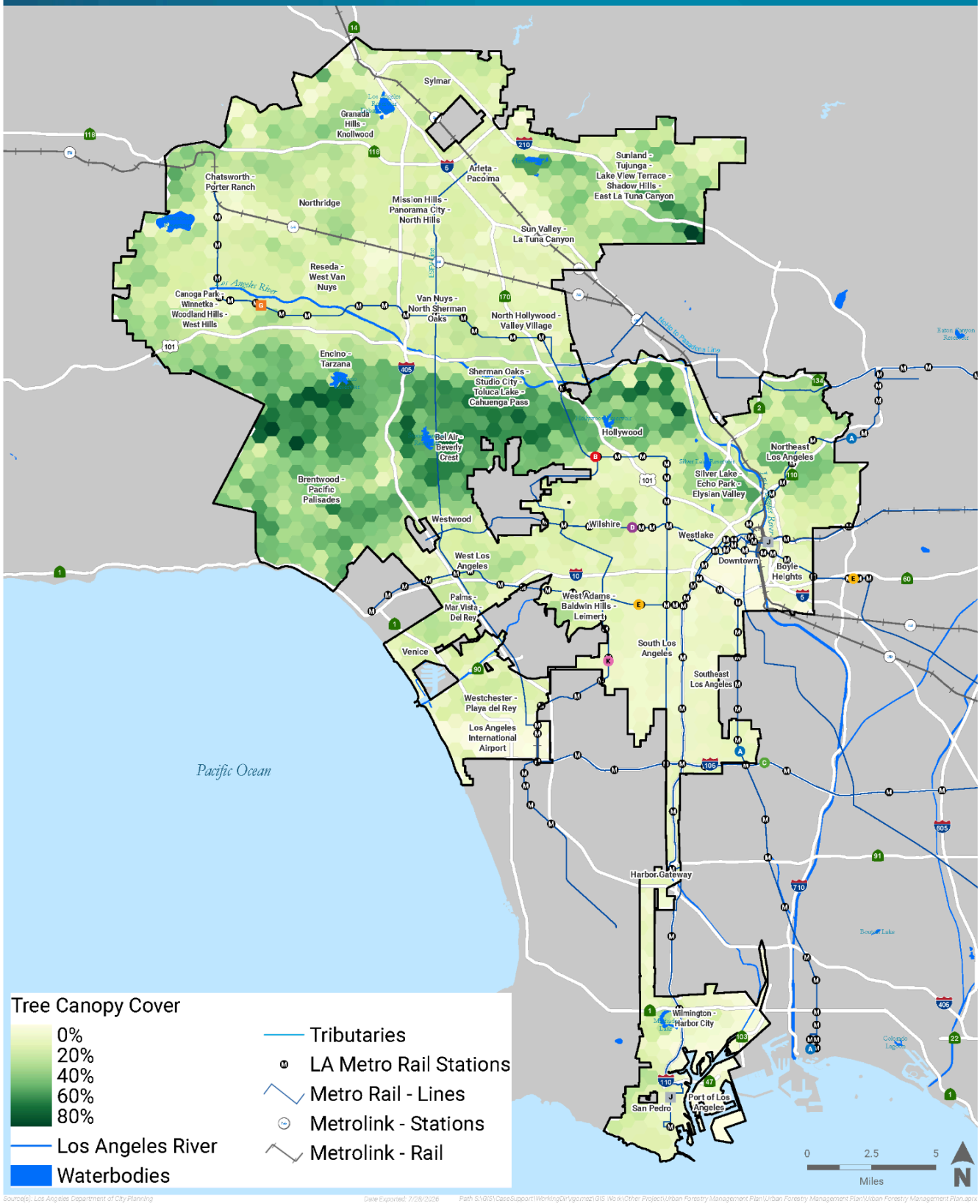
1. **Equity, Benefits, and Services** Our urban forest and the essential ecosystem services and life-supporting benefits it provides are equitably distributed throughout the City.
2. **Best Management** The City is a leader in urban forest management, using current science, data, and best management practices to shape policies, programs, and practices related to trees.
3. **Transparency, Education, and Engagement** Angelenos have a clear role in guiding urban forest priorities and design, can easily understand and access City processes related to trees, and understand the urban forest's importance and needs.
4. **Funding** City policies and programs related to our urban forest are sustainably funded and resourced.

The UFMP sets a target of 25% tree canopy cover citywide by 2035 and a minimum of 15% canopy cover at the neighborhood level. As of 2020, the City's tree canopy cover was 22.8%. However, focusing on this citywide metric does not illustrate the inequitable distribution of tree canopy that is present within Los Angeles. Of the City's 114 neighborhoods, 39% are below this threshold. Canopy cover ranges widely from a low of 4.5% in the Downtown area to a high of 50% in the Beverly Crest neighborhood. Without a minimum neighborhood target, the City could meet or surpass the citywide 25% canopy goal without addressing inequity, and thus leave many communities with insufficient tree canopy and a lack of its essential ecosystem services and life-supporting benefits.



Citywide Tree Canopy Cover (2020)

Urban Forest Management Plan



Source(s): Los Angeles Department of City Planning Date Exported: 7/28/2026 Path: S:\GIS\CaseSupport\Working\Virgomez\GIS Work\Other Project\Urban Forestry Management Plan\Urban Forestry Management Plan\Urban Forestry Management Plan.aprx

To foster a livable Los Angeles, tree canopy expansion and high-quality urban forest management are needed to support heat reduction, air quality mitigation, and increased presence of nature. Research from the University of California Los Angeles (UCLA) shows that shade can lower the outdoor "feels like" temperature by as much as 30° to 70° F.[1] UCLA also analyzed the amount of shade at noon, 3pm, and 6pm for 360 cities in the United States.[2] This research found that trees provide consistent shade throughout the day, with trees providing 99% of all shade at noon when buildings and other structures are providing almost no shade. The City's Climate Vulnerability Assessment (CVA) Prioritized Strategies for addressing extreme heat as a climate risk included both increasing the amount of green space and tree canopy and enhancing tree care through expanded tree maintenance programs and public education campaigns.

To support tree canopy increase and ensure a healthy and stable urban forest, the UFMP includes strategies and recommendations related to best practices for management of trees. These focus primarily on trees directly managed by the City, but also include City requirements related to private property trees as it is estimated that 80-90% of tree canopy within the City grows on private property. This UFMP splits urban forest management into four pillars - planting, maintenance, preservation, and engagement. **Neglecting thoughtful action in any of these areas compromises the entire system, leaving the urban forest vulnerable to declining health, reduced size, and diminished co-benefits, while simultaneously increasing risk.**

Four Pillars of Urban Forest Management



[1] Turner VK, Middel A, Vanos JK. Shade is an essential solution for hotter cities. Nature. 2023 Jul;619(7971):694-697. doi: 10.1038/d41586-023-02311-3. PMID: 37495873.
[2] UCLA. Mapping Shade: A New Lens on Heat Equity.

Actions related to each pillar should follow best practice and include long-term strategic planning that incorporates established and emerging science alongside robust community engagement. This necessitates the consistent evaluation and refinement of City programs, practices, and policies as well as the maintenance of a robust workforce possessing appropriate technical qualifications. In order to track the system health of the City-managed urban forest, the UFMP recommends maintaining updated tree inventories for all City-managed trees and incorporating urban forest stability metrics into tree planting and maintenance practices. Comprehensive public education and engagement initiatives are critical, ensuring that those who benefit from and influence the urban forest are well-informed and that community feedback is incorporated into management decisions.

Tree canopy expansion within the City also requires neighborhood level planning and transparent City processes. Participants in the UFMP's community engagement campaign made clear that, while citywide themes do exist, community priorities, opportunities, and concerns for trees vary by neighborhood. Spatial analysis also shows that some communities do not have sufficient room in public streets and spaces to achieve the City's tree canopy goals through planting in these locations, thus requiring a change to these spaces. Robust local planning will be key to increasing tree canopy effectively over time.

In order to successfully implement the strategies and recommendations of the UFMP increased funding is required. **The Urban Forest Financing Study (UFFS) found that the City was spending roughly one quarter of what was needed to implement the basic best management practices for street and park tree maintenance and preservation.** The UFFS reports the total annual funding for the Department of Public Works Bureau of Street Services Urban Forestry Division and the Department of Recreation and Parks Forestry Division at $30 million and estimates that $118 million is needed annually (in 2022 dollars). This does not include funding for public education and engagement nor a focus on equitable canopy expansion, both of which must be assessed.

The UFMP concurs with the UFFS recommendations of filling this funding gap through a combination of sources. This includes conducting polling and developing a bond measure for a special assessment, increasing urban forest General Fund allocations, and continuing to assess and update fees and fines related to oversight and support provided by the City for urban forest activities. The City should also consider how to best leverage external funding opportunities and innovative funding mechanisms.

DRAFT

The UFMP's robust community engagement campaign occurred during 2023 and 2024 in partnership with Los Angeles County. The community engagement campaign focused on gathering feedback on concerns and priorities for trees and the urban forest. It included an in-depth workshop series with community experts, a countywide questionnaire, in-person workshops, and over 260 events reaching over 150,000 individuals with information about the project. Local community-based organizations were the campaign's backbone, delivering outreach events, connecting with constituents, and expanding the overall reach and accessibility of the engagement campaign.

The large number of people and entities making decisions that impact the urban forest results in significantly varied levels of care and management. While this UFMP provides a comprehensive overview of, guidance on, and recommendations for all trees within the City, it includes a specific focus on recommendations for actions to be addressed by City departments and decision-makers. Street and park trees receive extra focus alongside other City-managed trees because of this. The UFMP also, necessarily, includes consideration of non-City entities and their impacts on the urban forest. This includes key partners for Los Angeles' urban forest, such as nonprofit organizations, industry partners, Los Angeles County and California State agencies, and everyday Angelenos - all of which provide vital contributions in creating and sustaining a healthy, equitable, and well-managed urban forest.

Vision and Values for Our Urban Forest

Vision Statement

Los Angeles' urban forest is healthy, diverse, resilient, and expanding. It sustains vibrant, livable, and unique communities, and promotes health and well-being equitably for all of the City's residents and visitors.

Values

Centering the City's urban forestry decision-making around these values will guide the City in successfully achieving the goals of high-quality urban forest management - maximizing the essential ecosystem services and life-supporting human benefits trees provide to Angelenos, while minimizing the risk posed by those trees.

- **Preserve healthy trees**, both on public and private land, to support existing and future canopy.

- **Prioritize creating large spaces for trees** with high canopy and shade capacity in order to create inviting, safe, and healthy public spaces for Angelenos and visitors to improve access, experience, and usability for community connections, passive recreation activities, alternative transportation options, and robust business districts.
- **Enhance the health of the urban forest** through high-quality, proactive, and adaptive management.
- **Fund and authorize City departments to hire the necessary spectrum of experts and specialists** and to maintain sufficient staffing levels so that urban forest decisions are made in a way that is efficient, in the public benefit, and minimizes future risk to the City.
- **Engage and educate Angelenos and decision-makers** on the urban forest's needs and importance of the quality of life function provided by each urban tree.
- **Support local and regional ecological function and connectivity** through context-sensitive design and land stewardship activities.
- **Align urban forest decision-making with other City plans and goals**, such as those related to infrastructure and transportation, housing and urban planning, and climate resiliency.

UFMP Structure and Implementation

The UFMP is divided into three sections. It includes descriptive chapters providing background, analysis, discussion of best practices, and the current urban forest context. These chapters are followed by the 50-year Strategic Plan and an initial five-year Implementation Plan.

CHAPTER TITLES:

1. Overview of the Urban Forest Management Plan
2. Trees in the Urban Ecosystem
3. History and Governance of Trees in Los Angeles
4. Equity and Canopy Expansion
5. Tree Canopy Cover and Inventory Analysis
6. Tree Planting and Establishment Care
7. Tree Maintenance
8. Tree Preservation
9. Community Engagement and Public Education
10. Funding the Urban Forest

STRATEGIC PLAN CATEGORIES:

1. Plan for Canopy and Shade Across City Departments
2. Grow New Trees
3. Maintain and Preserve Existing Trees
4. Track Progress and Pilot Innovation Using Data and Metrics
5. Develop and Maintain City Policies
6. Collaborate, Educate, and Engage
7. Establish Evergreen Funding Mechanisms

DRAFT

In order to guide the City to improve urban forest practice over time, the UFMP includes a 50-year Strategic Plan and five-year Implementation Plan. Subsequent Implementation Plans will be created at five-year intervals, continuing to reference strategies pulled from the Strategic Plan. These future Implementation Plans will include an overview of progress and successes in implementing the previously adopted Plans, a brief review of emergent science and practice that occurred during that time frame, and recommendations for the next five-year set of actions.

This structure of adopting five-year Implementation Plans allows the City to continue to be accountable and transparent about progress on the concepts and values laid out in the UFMP and its Strategic Plan, while having flexibility that better mirrors an adaptive management approach. This is critical, as conditions are likely to continue to change as the City implements new procedures and as the natural environment and weather patterns are further impacted by climate change. Furthermore, this approach is best suited to managing living infrastructure.

Conclusion

In summary, the City benefits from having healthy trees that provide benefits and access to nature in all communities. These trees need sufficient space to grow and protection from careless damage or premature removal. Trees must be cared for by trained, technical staff with appropriate equipment and at cadences that minimize risk to residents and liability for the City. Communities need to be engaged and included in urban forest design and growth, supported in stewardship activities, and able to access City processes and resources. City structures for design decisions on public and private land must balance the various needs of the urban environment and the goals of a specific project alongside the need for ecological function.

DRAFT

PRIORITY RECOMMENDATIONS FOR URBAN FOREST MANAGEMENT

While there are many recommendations on necessary improvements to Los Angeles urban forest management throughout the UFMP and the Strategic and Implementation Plans, the recommendations below represent the most critical actions for decision-makers to consider and address.

1. **Maintenance:** Allocate resources to achieve a five to seven year inspection and trim cycle for all City-managed trees, particularly park and street trees.
2. **Evergreen funding:** Identify and allocate resources to explore the development of a ballot measure for urban forest management funding.
3. **Tree Preservation:** Update the Protected Tree and Shrub Ordinance to address known issues affecting clear and efficient implementation and recommend expanding protections that have been identified by policy-makers, staff, and the public.
4. **Plan for Increased Canopy Cover:**
    a. Develop a framework for neighborhood-level tree canopy expansion planning - determine datasets for analyzing neighborhood traits and opportunity areas, consider potential incorporation into existing City programs, define mechanisms and structure for community feedback on priority activities and areas, and develop a suite of potential activities covering all urban forestry pillars.
    b. Set canopy minimums for City capital improvement projects and the public right-of-way that provide guidance and requirements for tree canopy and also support flexibility in design for different project types. Ensure there are staffing authorities and funding for the urban forestry expertise needed to advise these project types.
5. **City Structure:**
    a. Adopt new classifications, such as Urban Forester and Urban Ecologist, to aid in recruiting and hiring the necessary City staff to manage the urban forest and other natural resources.
    b. Upon establishment of the new civil service classifications, begin evaluating the oversight of private property trees to determine the City department best suited to manage their permitting and enforcement. This should consider opportunities for alignment with other private property decision-making and ensure that adequate staff resources are assigned for these functions.
    c. Consider structural changes to City departments that manage tree assets to better support all tree management activities.
6. **Public Education and Engagement:** Fund, design, and deliver a city-wide public education campaign on the importance and needs of the urban forest.

DRAFT

Chapter 1: Overview of the Urban Forest Management Plan

1.1 What is the Urban Forest?

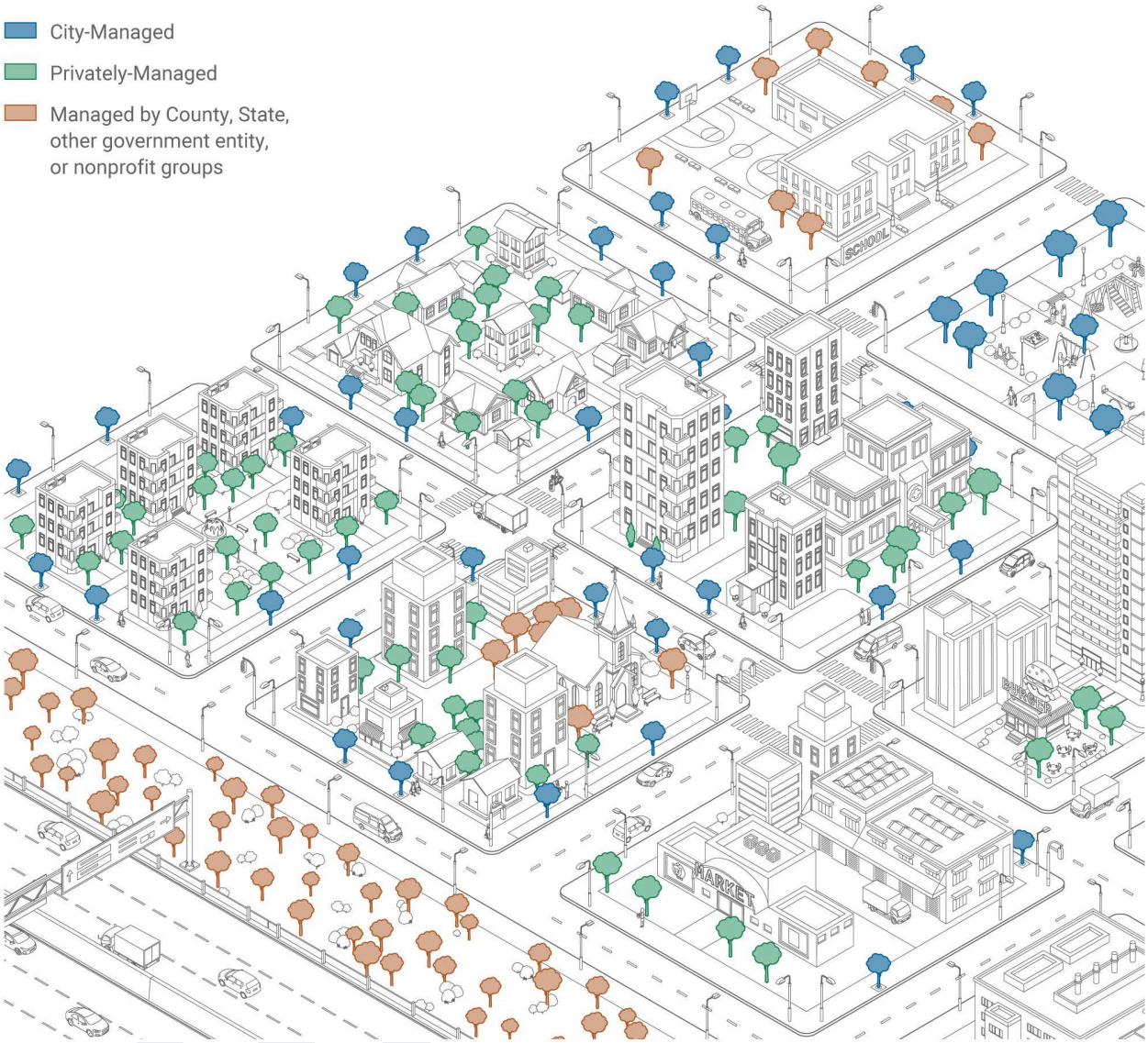
The **urban forest** within the City of Los Angeles (City) is made up of all **trees** within the City's nearly 500 square mile boundary. This includes trees on all land use types, including both public and private property - trees that are managed by the City, those that are managed by other government agencies or nonprofit groups focused on environmental and conservation efforts, and those managed by private individuals or organizations. Trees under City management fall under the responsibility of a number of City departments, with street and park trees making up the largest groups of actively managed assets. Trees not under direct City management are found in a wide range of places and, therefore, are managed by many different entities.

- **City-managed trees** include those in parks and open spaces, on streets along sidewalks or in medians, and on City-owned or managed properties, including City facilities (such as libraries or City Halls) and land managed by the Los Angeles Department of Water and Power (LADWP), the Los Angeles Harbor Department, and the Los Angeles World Airports (LAWA).
- **Trees managed by non-City government agencies or nonprofit groups** include those on school campuses, in freeway easements, in State and County parks, and in other parks or open spaces that are managed by conservation or other environmental nonprofit groups.
- **Privately-managed trees** include those found in yards around homes and apartment buildings, in commercial areas around business, in parking lots, and around places of worship.

Urban Forest - the collection of all trees within a given urban boundary.

Tree - a woody perennial plant that usually has (but is not limited to) a single dominant trunk and has a mature height of fifteen feet or more.

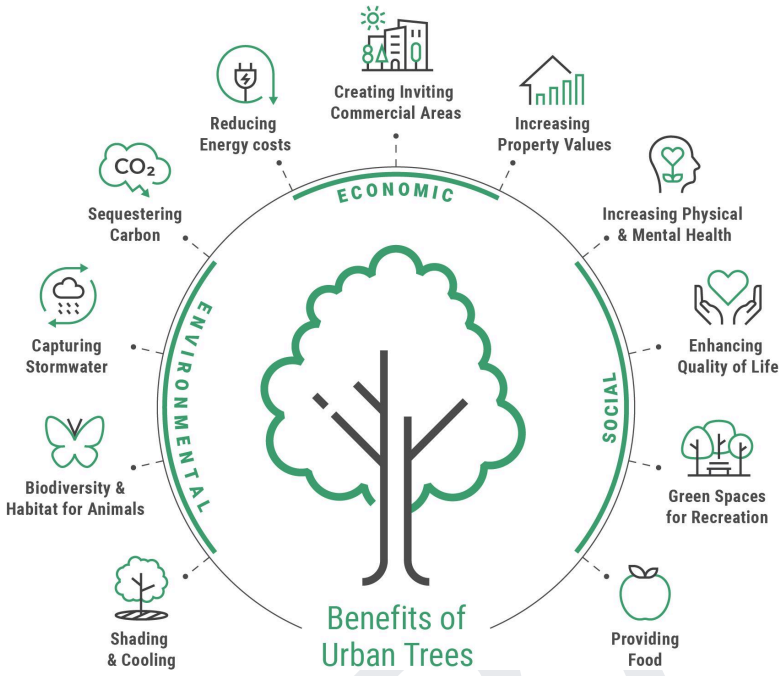
DRAFT



Importance of the Urban Forest

The urban forest is not simply a collection of individual trees distributed throughout Los Angeles. It is a part of the larger ecosystem - a living network composed of trees, understory plants, soils, water, air, wildlife, and the people that collectively support the ecological processes upon which healthy communities depend. Across forests, parks, streets, yards, school campuses, waterways, hillsides, utility corridors, vacant lands, and natural areas, trees interact with the surrounding environment to regulate water, build healthy soils, support biodiversity, moderate climate, improve public health, and shape the character and resilience of neighborhoods. Trees are therefore best understood not only as public assets and amenities, but as living infrastructure that both shapes and is sustained by the broader urban ecosystem.

The City's urban forest provides essential ecosystem services and life-supporting benefits to the people and animals that live, work, and play within the City. As a foundational piece of green infrastructure, trees are the only asset where age and value are positively correlated. As trees age and grow their benefit output also increases.



To provide these services and benefits, trees and the ecosystems they live in need to be healthy and resilient. Climate changes are impacting the health of trees, which in turn impacts the urban forest's ability to protect Angelenos.

1.2 What is an Urban Forest Management Plan?

Urban Forest Management

Urban forest management is a multidisciplinary practice that integrates arboriculture, urban planning, community engagement, public health, engineering, ecology, and more. Restoring and enhancing natural systems within a heavily altered urban environment is a complex task. This document serves to guide the City in effectively prioritizing, utilizing, and managing the tree population across the vast urban landscape.

The long-term success of Los Angeles' urban forest depends not only on managing individual trees and groups of trees, but also on stewarding the ecological systems that allow trees to survive, adapt, and thrive. Tree health, longevity, and the ecosystem

services provided by the urban forest emerge from complex interactions among soils, water, biodiversity, climate, land management practices, and the built environment. Likewise, many of the City's priorities - including climate resilience, stormwater management, biodiversity conservation, public health, heat mitigation, air quality, and neighborhood livability - cannot be achieved through trees alone. These outcomes result from healthy, functioning ecosystems in which trees interact with other vegetation, wildlife, microorganisms, water, and people.

Urban Forest Management Plan

An Urban Forest Management Plan (UFMP) is a strategic tool used by many cities to help the City define its priorities and desired outcomes for the urban forest while providing a roadmap to reach those goals. The UFMP includes an overview and assessments of the City's urban forestry practices, policies, programs, City-managed tree inventories, and land cover data, a long-term strategic plan (50-year time frame), and shorter-term implementation plans (five-year timeframes) with metrics for monitoring success.

An Evolving Roadmap for Los Angeles

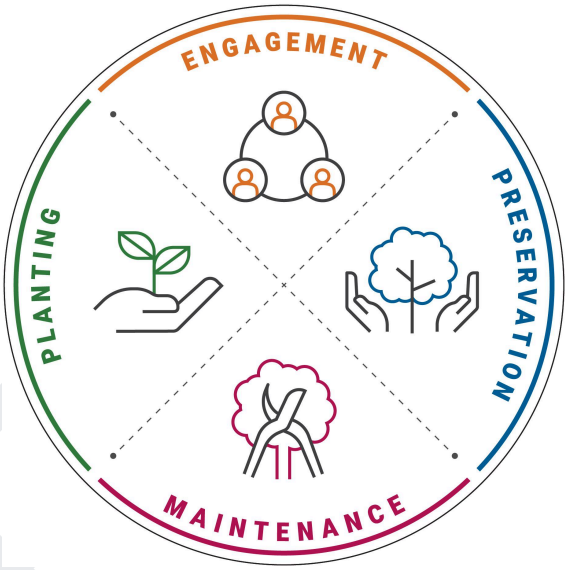
The UFMP builds upon previous foundational efforts and represents the next step toward a sustainable and healthy urban forest in Los Angeles. While the 50-year Strategic Plan outlines broad strategies, the use of five-year Implementation Plans to report on progress and define actions ensures the document remains dynamic. By utilizing five-year cycles, the City can adopt an adaptive management approach for its living infrastructure, allowing for regular adjustments based on new research, shifting urban conditions, and progress evaluations. As the group tasked with creating and maintaining the UFMP, the Office of Forest Management (OFM) will update these plans on a five year cycle. This will include an overview of changing conditions and needs in the urban forest, reports on metrics and progress from the previous Implementation Plan, and actions for the upcoming five years. This will also be an opportunity to incorporate new relevant research into the City's urban forestry practices.

Alignment with Other City Initiatives

The UFMP is designed to align with broader City goals and initiatives, specifically those related to climate resilience, public health, mobility, and urban planning. Because the urban forest is impacted by numerous City departments, the UFMP has implications for many City entities. It is therefore crucial that the UFMP's strategies are consistent with and work in conjunction with the established goals of other existing City plans. The UFMP's development process included a focused effort to integrate the UFMP's recommendations with information and strategies gathered from these related City efforts.

1.3 Four Pillars of Urban Forest Management

The existing urban forest in Los Angeles is largely a product of human efforts to plant and maintain trees. Maintaining a healthy urban forest in Los Angeles requires a wide range of coordinated actions. Without strong efforts in all four of the following core pillars, successful management of the urban forest will not be achieved.



While many immediately think of tree planting initiatives as the primary activity related to the urban forest, it is critical to also highlight the importance of the other aspects of urban forest management. Without sufficient investment in all four management areas, especially proper care of existing trees, the urban forest will not be healthy nor able to support the City's goals. Each of these four areas require different technical knowledge and skills, but all contribute to an overarching goal of healthy, long-lived trees that maximize the benefits received from trees and minimize the risk associated with trees.

High-quality urban forest management also requires long-range, strategic planning. To ensure that urban forest policies, actions, and initiatives remain efficient and cohesive, this planning must integrate all four pillars. This UFMP is structured with a dedicated chapter for each pillar topic.

Planting

See Chapter 6: Tree Planting and Establishment Care for a more detailed discussion of this pillar, including challenges and opportunities.

This pillar involves far more than the physical act of digging a hole and putting a tree in the ground. It represents a comprehensive set of activities and considerations necessary for the responsible and efficient addition of new trees that aims to provide ecosystem service enhancements rather than simply beautification. While planting new trees can expand the canopy cover of a neighborhood over time, success depends on technical expertise that supports careful project planning and implementation. This approach minimizes potential future risks and conflicts with infrastructure while ensuring that planting projects support the City's intended urban forest outcomes and benefits.

Important technical considerations and activities related to planting include:

Proper tree species selection is a critical decision that considers a variety of factors, including:

- **Site conditions** such as microclimate, weather patterns, soil type and level of compaction, other adjacent infrastructure and potential conflicts, and sufficient room for root growth underground and canopy growth above ground.
- **Primary site use** such as high pedestrian volumes, bus stops, or bike lanes that may require more need for shading and consideration of species characteristics to prevent conflicts.
- **Future climate** such as resilience and adaptability to heat, drought, and other extreme weather conditions predicted to occur in the future.
- **Species performance** such as typical life span, pest and disease susceptibility, aggressiveness of root systems, growth rates, and strength of branch attachments are considered in the context of the site and desired outcomes.
- **Ecological considerations** such as creating habitat corridors and enhanced connectivity throughout the City, and assessing site suitability to sustain locally native trees.

! Risk and Liability Considerations

It is important to include tree risk considerations as part of the site conditions evaluation and species selection process. If a site will have a high volume or frequency of **targets**, tree species that are more likely to have frequent limb or full tree failures should be avoided.

Targets are people, cars, or other living things, objects, or structures within the vicinity of a tree such that they may be harmed by falling branches or full tree failure.

Additionally, increasing available soil volumes and improving planting conditions has the potential to save the City greatly over time by reducing the cost incurred by repeated tree replacement programs, sidewalk repair projects, liability claims, and degraded environmental performance.

Improving site conditions at planting locations can increase the likelihood of healthy growth. This includes considerations to improve soil health, increase available soil volume through developing larger planting areas, and support stormwater capture or irrigation needs.

DRAFT

Careful selection of nursery stock is important to ensure that purchased trees have a healthy root system, overall structure, and are pathogen free, which increases the likelihood of their future survival and healthy, stable maturation. Prioritizing the procurement of nursery stock with **genetic diversity** is also important to consider.

Genetic Diversity

A common nursery practice is to utilize root grafts to create clones of the same plant when starting new trees. This reduces the genetic diversity of a group of trees, causing the grouping to be more at risk for greater impact should a pest or pathogen impact that species.

Growing new plants from seeds, preferably those that are locally sourced and sustainably collected, increases the genetic diversity and therefore the likelihood of some individual trees of the given species surviving attack by a pest or pathogen.

Proper tree placement is important for reducing potential conflicts with other infrastructure.

Planting The physical act of digging a hole and installing the tree has technical components that can impact a tree's likeliness to live or die after it is planted.

Establishment care refers to important activities that help a newly planted tree become established in its new home, including watering, mulching, weeding, stake and tie adjusting, and structural pruning. The first five years after planting are a critical time, having higher mortality rates than the remainder of a tree's life.[3] This is an area where OFM has received a large volume of public feedback. Tree planting efforts that do not include funding and support for young tree establishment care are a point of public frustration. In the Los Angeles region, there can be as many as nine months of the year without rainfall. Changes in weather patterns are only exacerbating the challenges of establishing new trees. Newly planted trees need supplemental watering to develop a root system to support their future growth, even if they are species known to be low water users or drought adapted. Additionally, adjusting tree stakes and ties to promote healthy structural growth, removing weeds that compete for water, and applying fresh mulch are important activities in these early years. To consider a tree fully "installed" takes several years at the end of a project, generally falling outside the typical timeline for capital or development project completion and makes it more complex for the City to enforce.

[3] Deborah R. Hilbert Lara A. Roman Andrew K. Koeser Jess Vogt and Natalie S. van Doorn. 2019. *Arboriculture & Urban Forestry.* Sep; 45 (5) 167-200. DOI: https://doi.org/10.48044/jauf.2019.015

Maintenance

See Chapter 7: Tree Maintenance for a more detailed discussion of this pillar, including challenges and opportunities.

This pillar begins immediately after establishment care concludes and includes young tree structural pruning, inspection-based tree trimming for middle-aged and mature trees, pest management, and end of life removal, including stump grinding and wood re-use considerations. It includes activities that are required to ensure existing trees in the urban forest are healthy and long-lived and that potential risks are minimized. Well-maintained trees are important for sustaining existing canopy cover and can create the biggest immediate canopy increase for the urban forest through their regular and on-going growth. This is even greater than the immediate increase provided by tree planting activities. However, high levels of canopy expansion from the growth of existing trees is only achieved if maintenance activities are carried out by the appropriate technical experts. For pruning, an emphasis on inspection-first and clearly defined outcomes is critical to ensure overpruning does not occur.

Important technical considerations and activities related to tree maintenance include:

Proactive tree inspection and pruning includes two main activities, one focused on trees within the first 10 years after planting and the other focused on all other trees. When enacted strategically together, programs for young tree structural pruning and inspection-based tree trimming can greatly decrease the risk and liability associated with urban trees.

- **Young tree structural pruning** is a critical proactive maintenance activity. It supports healthy branch structures as trees grow and limits conflicts with other infrastructure in the public right-of-way. Pruning done when a tree is young is less impactful to the tree and more efficient, requiring less time and equipment, as the branches needing removal are usually smaller and easier to access from the ground.
- **Inspection-based tree trimming on a five to seven year cycle** is essential for reducing the potential risks for City-managed trees. While each tree does not necessarily need active pruning every five to seven years, each tree should be inspected at that interval so that pruning needs can be identified and addressed immediately. Tree trimming is focused on meeting certain defined objectives, such as maintaining clearances from roadways, signs, and other infrastructure and addressing specific types of structural defects or presence of disease or decay. Without such a cycle, a higher proportion of City resources are allocated to reactive, rather than proactive, pruning activities.

! Risk and Liability Considerations

Well funded and strategic tree maintenance programs, while requiring upfront investments, have the potential to save the City greatly over time.

Reactive maintenance includes emergency response (such as downed trees and limbs during storm or wind events) and constituent requests (such as those received through the City's customer service request system for obstructed signs).

Pest management is an important piece of overall urban forest health and requires collaboration with regional partners, such as Los Angeles County. Clear plans and protocols for addressing emergent pests and disease can minimize the amount of trees, and subsequent tree canopy, lost due to pests and disease. Past pest and disease infestations have had significant negative impacts on urban tree canopy.

End of life planning and activities are the final phase of maintenance for trees. Unlike in a forest, urban trees must actively be removed when they become unsafe or begin to die.

- **Tree removal**, depending on the size of the dead or dying tree, can be time and labor intensive, requiring specialized equipment. Not properly funding this aspect of tree maintenance results in an increase in tree and limb failures, which increases liability and claims and draws the City's resources toward reactive tree emergency response over proactive tree maintenance.
- **Stump grinding** must be done in many instances to allow the space where the tree was growing to be used again - either for planting another tree, to remove a trip and fall hazard, or for other uses. Stump grinding can also ensure stump sprouts do not regrow, potentially creating a multi-trunked tree that causes increased clearance issues.
- **Wood re-use or disposal** includes a wide range of activities. Wood can be chipped into mulch, composted, cut for firewood, milled into lumber for structural building, furniture, or other crafts, or turned into biochar. Depending on the state of the wood at time of removal, different options are available. Trees with pest infestation must be disposed of properly to prevent spreading the pest to other urban trees.

DRAFT

Preservation

See Chapter 8: Tree Preservation for a more detailed discussion of this pillar, including challenges and opportunities.

Middle-aged and mature trees grow over decades and represent the greatest immediate canopy expansion potential. If removed and replaced with new trees, their full capacity to provide shading and other benefits is not replaced for decades. From a purely arboricultural standpoint, urban trees are removed when trees are dead, dying, or have risk of full tree failure. This emphasizes the importance of high-quality tree maintenance as a critical aspect of tree preservation. This also means that trees in good condition are removed because some or all of the space in which they exist is deemed necessary for a different use. This competition for space in urban settings, creates the need for a clear hierarchy of use for land within the public right-of-way, in parks, and on private property, with an understanding of the tradeoffs when non-tree assets are prioritized.

This pillar is focused on a variety of mechanisms that the City can deploy to ensure that mature trees are preserved and to realize the full economic, environmental, community and social returns that those trees provide over their lifespans. This includes actions that retain and protect trees during private development and public capital improvement projects. While these types of projects are needed in a city, it is important to plan and execute them with consideration for the retention and protection of existing trees.

This pillar also includes the structure and clarity of policies that prioritize the preservation of City-managed and private property trees as high-value, irreplaceable community assets. Tree preservation regulations must be strong, clear, and enforceable. This ensures full return on investments made in the other areas of planting and maintenance. Street and protected private property trees are prematurely removed in projects the City is aware of, such as development projects that are public capital improvement projects or private development requesting permits from the City. Protected private property trees, and sometimes street trees, are also removed in instances that the City is unaware of, when a property owner or resident decides to remove a tree without requesting a permit. Clear, well-understood policies are essential in these cases, as City oversight on private property is limited.

! Risk and Liability Considerations

Policies with clear, objective standards for tree preservation provide the City with mechanisms to protect trees while also ensuring alignment with City and California State laws and requirements for development.

DRAFT

Important technical considerations and activities related to tree preservation include:

Tree retention refers to keeping trees in place when development or capital improvement project construction activities are occurring within a tree's vicinity. This action can be taken proactively by project developers or can be required by City regulations for specific trees. Strong policies define protected classes of trees, provide clear criteria and pathways for decision-making, and stipulate the types of replacement conditions required when trees are approved for removal.

Tree protection refers to actions taken to protect retained trees from damage during construction activities. This includes protecting the tree's roots, trunk, and branches.

Tree Risk Management Plans are another tool that may be utilized to define risk thresholds and protocols for determining when to remove trees during routine maintenance, and also can assist in determining priorities where limited resources for maintenance are available.

Enforcement of City policies is critical for the success of any tree preservation policies. When penalties are low, inconsistent, or not enforced, negative tree outcomes through illegal removals have the potential to increase exponentially. Enforcement should also be paired with public education that leads to establishing social norms where trees are viewed as part of community health and identity.

Removal of existing, healthy trees is another area where OFM has received a significant amount of public feedback, typically with strong public opposition to tree removals. There is a desire from the public to see the City protect tree assets and use innovative, creative solutions to retain existing trees and to have significant penalties and enforcement to more strongly deter people from removing trees illegally.

Community Engagement and Public Education

See Chapter 9: Community Engagement and Public Education for a more detailed discussion of this pillar, including challenges and opportunities.

This pillar includes both community engagement and public education - listening to the communities' wants and needs related to the urban forest as well as providing education related to urban forest benefits and management. This allows the City to plan for and address community priorities and concerns, as well as have public support for funding and resource allocation for urban forest management activities.

DRAFT

Community engagement is important in general when the City is developing projects, programs, and policies. However, it is especially important for urban forestry because trees grow in place - as they grow their essential ecosystem services and life-supporting benefits expand. The long-lived nature of trees makes them hard to replace, similar to historic buildings. Public support for on-going activities to address urban forest health issues is therefore critical.

The public must also be a partner in employing good urban forestry and arboriculture practice on trees that they interact with. There are easy actions that the public can take to prevent tree damage and decline but there is a lack of understanding of these actions and a lack of awareness of the impact human activities have on tree health and ultimately quality of life in neighborhoods. A street tree that took decades to grow to a mature size can be removed in a single day, removing shade that cannot be easily or quickly replaced for the pedestrians using that space.

It is estimated that 80-90% of the region's trees are growing on private property, requiring collaboration with the public to achieve urban forestry goals. In the region, there has been a proliferation of inappropriate tree care activities and practices, such as excessive pruning, that significantly reduce canopy and increase risk due to compromising the tree's structure and health. The public needs to understand why and how the City is using trees to create more livable and safe communities.

Community Engagement: The City must listen to the public to understand their priorities and concerns in areas regarding mature trees, planning for new planting projects, species selection, and tree removal. Community-informed projects are more successful and have better outcomes. The process of listening to the public can also inform the City of the tree benefits that most matter to a community and what negative tree experiences need to be addressed. In a region as large as Los Angeles, attitudes and priorities related to trees differ from neighborhood to neighborhood. Tailoring outreach and project design to reflect these differences is key to building trust and ensuring equitable urban forest outcomes.

Public Education: The City must also clearly communicate the importance of the urban forest and the role that individuals play or can play to either improve or harm it. Building off of takeaways from listening sessions as part of community engagement activities supports successful education. The City can share information, resources, and other interventions that highlight the benefits that matter the most to residents, address their concerns regarding trees, and develop a common understanding of the role we all play in expanding, supporting, and enjoying the urban forest.

DRAFT

Successful community engagement and public education can lead to the development of new social norms that support a healthy urban forest and healthy, resilient communities.

1.4 Considerations of Regional Forest Management

Successful implementation of the goals and strategies outlined in this UFMP also rely on a clear understanding of the broad disciplines of urban forestry and arboriculture and the importance of regional collaboration. While these topics are not discussed deeply in the UFMP, a general understanding of them will aid in understanding the context and complexity of urban forest management.

Urban Forestry and Arboriculture: Distinct yet Integrated Disciplines

Urban forestry and arboriculture are related, but distinct disciplines. A well-managed urban forest must include consideration of both. **Arboriculture** focuses primarily on the health and risk management of individual trees. This practical discipline encompasses essential activities such as tree climbing, trimming, planting, and establishment care, as well as conducting various assessments related to tree risk, protection, and root pruning. **Urban forestry** represents a multidisciplinary convergence that incorporates arboriculture alongside many other disciplines including urban planning, community engagement, ecology, engineering, public health, and mapping and data analysis. Similar to other planning disciplines, urban forest planning involves balancing complex considerations within the limited space of urban environments. Cities must carefully weigh the diverse needs of their communities and ecosystem when determining how to manage these vital assets.

Regional Collaboration and Connection

Urban forest management must be considered within the broader context of the City and the surrounding region. This includes consideration of other workstreams within the City, non-City entities that impact the urban forest, and broad collaboration within the region.

First, the UFMP has implications for and is influenced by various City initiatives. Decisions regarding land use, transportation, utility placement and service delivery, biodiversity, soil health, ecological connectivity, and climate adaptation are all intertwined with urban forest management. To ensure consistency, the UFMP emphasizes inter-departmental collaboration and alignment of forest management with these related workstreams and offers specific recommendations to support them.

DRAFT

Second, because the urban forest encompasses all trees within City limits, achieving canopy expansion requires cooperation from land owners and managers. The UFMP identifies external partners who are essential in reaching canopy cover targets. This effort involves potential coordination with major land managers, such as the Los Angeles Unified School District (LAUSD), the Los Angeles County Metropolitan Transportation Authority (Metro), and the California Department of Transportation (Caltrans). These intersections were repeatedly expressed during public engagement for the UFMP. Participants frequently noted the vital link between trees and public transit access, as well as the potential for local schools to serve as green community hubs that contribute to Los Angeles' collective canopy objectives.

Third, collaboration with other local government agencies, such as Los Angeles County, supports regional alignment on urban forest management. Threats like climate change and invasive pests do not function based on jurisdictional boundaries, they impact trees regardless of location. Additionally, local governments in the region are all contending with similar issues. Limited municipal funding, including for urban forest management, is one such problem. Collaborative efforts to increase urban forestry funding through local bond measures and to conduct broad community education campaigns may be more effective with regional collaboration.

1.5 UFMP Community Engagement Campaign

The engagement for this UFMP was conducted as a partnership with the Los Angeles County Chief Sustainability Office (CSO) to develop the respective Community/Urban Forest Management Plans for Los Angeles County and the City. Both plans include strategies to develop equitable, healthy, and climate resilient tree canopies across Los Angeles. By way of a California Department of Forestry and Fire Protection (CAL FIRE) grant, the City and CSO developed a robust, equitable community engagement process that guided the development of a shared and unified vision for the urban forest. This engagement also informed the strategies and recommendations related to urban forest management in this UFMP.

Several types of engagement activities and methods comprised the outreach approach. The process began with a series of workshops with community experts executed in Spring and Summer 2023. Representatives from a variety of different types of community-based organizations (CBOs) were invited to participate in a series of six in-person workshops and one virtual workshop recapping the information gathered. Each workshop covered a different topic and centered around gathering information from the

community experts that informed the development of the UFMP and the content and approach for the neighborhood-level engagement campaign.

Community Expert Workshop Topics:

- Engaging with Trees in Our Communities
- Healthy Trees, Resilient Communities
- Trees on Private Property
- Biodiversity and Ecosystems
- Trees are Infrastructure
- Workforce and Economic Development

Following the community expert engagement 21 CBOs began supporting direct neighborhood engagement from Fall 2023 through Spring 2024. This included over 260 in-person events ranging from tabling events, to community canvassing events, to presentations at membership events and neighborhood workshops, both in person and virtually, throughout the City. The community partners promoted the UFMP activities and dialogue by way of email, text messages, phone calls, website posts and social media campaigns reaching over 150,000 individuals. Additionally, over 2,100 community questionnaires were completed by stakeholders throughout the engagement efforts. All of the engagement materials and activities were available in multiple languages as needed by participants.

Community Feedback Summaries and Discussion

Summary and discussion of community feedback from the community questionnaire and workshops are included in this chapter when the feedback is broadly related to the urban forest, its benefits, or its management. Feedback more directly related to the specific chapter topics are included in the respective chapter.

Participants were asked to identify which benefits were most important to them, with no limit given on the number of options selected (see Figure 1.1). The frequency of selection for each of the nine options roughly breaks down into four levels of importance:

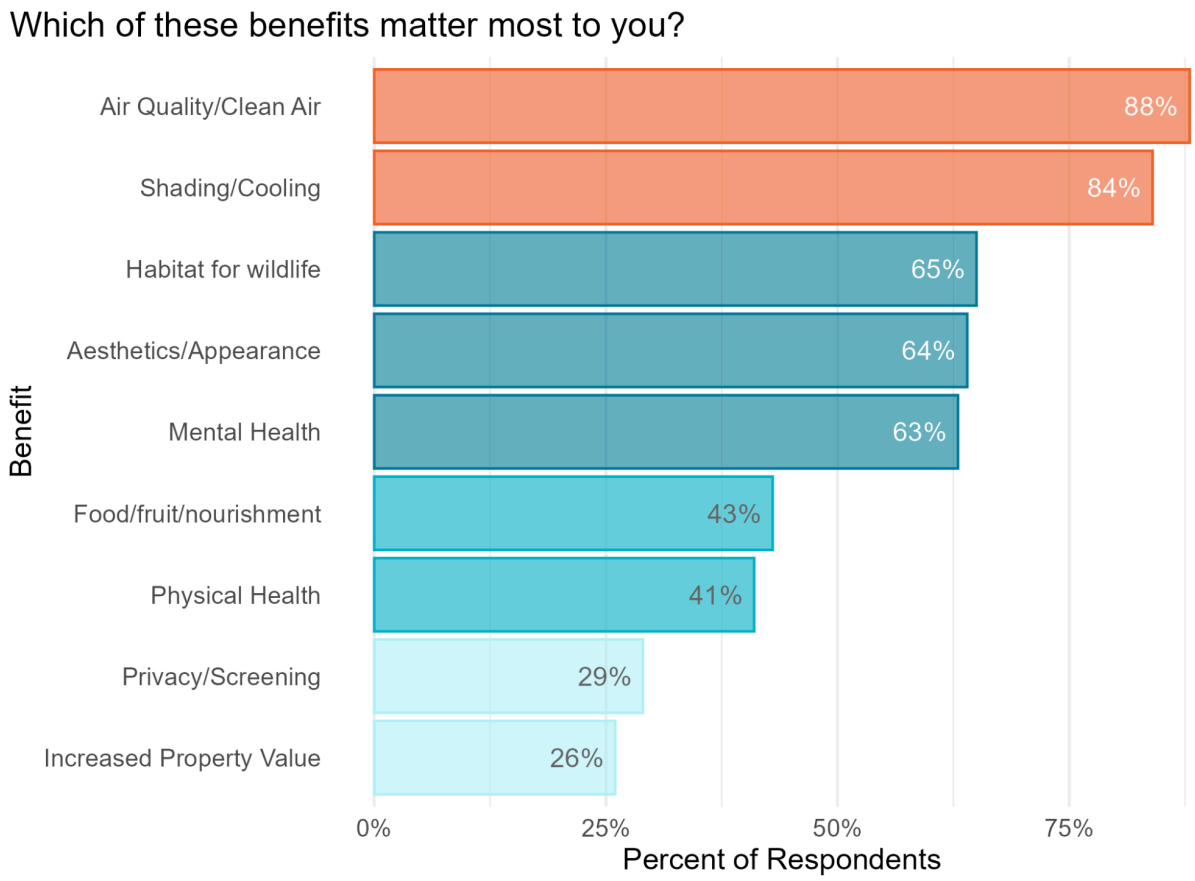
- High majority of respondents (over 80%) - air quality and shading/cooling
- Roughly two-thirds of respondents (over 60%) - habitat for wildlife, aesthetics/appearance, and mental health
- Slightly less than half of respondents (roughly 40%) - food/fruit/nourishment and physical health
- Fewer than a third of respondents (under 30%) - privacy/screening and increased property value

DRAFT

The benefits that respondents selected most frequently as important were air quality (88%) and shading/cooling (84%). These are both urban forest benefits related to public health protections that broadly impact Angelenos. While this UFMP discusses and considers all urban forest benefits, the shading and cooling benefits receive particular attention due to both community importance and also climate science indicating that extreme heat will continue and/or worsen in the region. Furthermore, the way in which trees provide a direct counter balance to extreme heat through shading and cooling benefits is straightforward. By comparison, the urban forest's impact on improving air quality is a more complex and complicated issue, requiring further consideration and research. The UFMP therefore focuses less directly on the urban forest's air quality benefits as compared to its shading and cooling benefits.

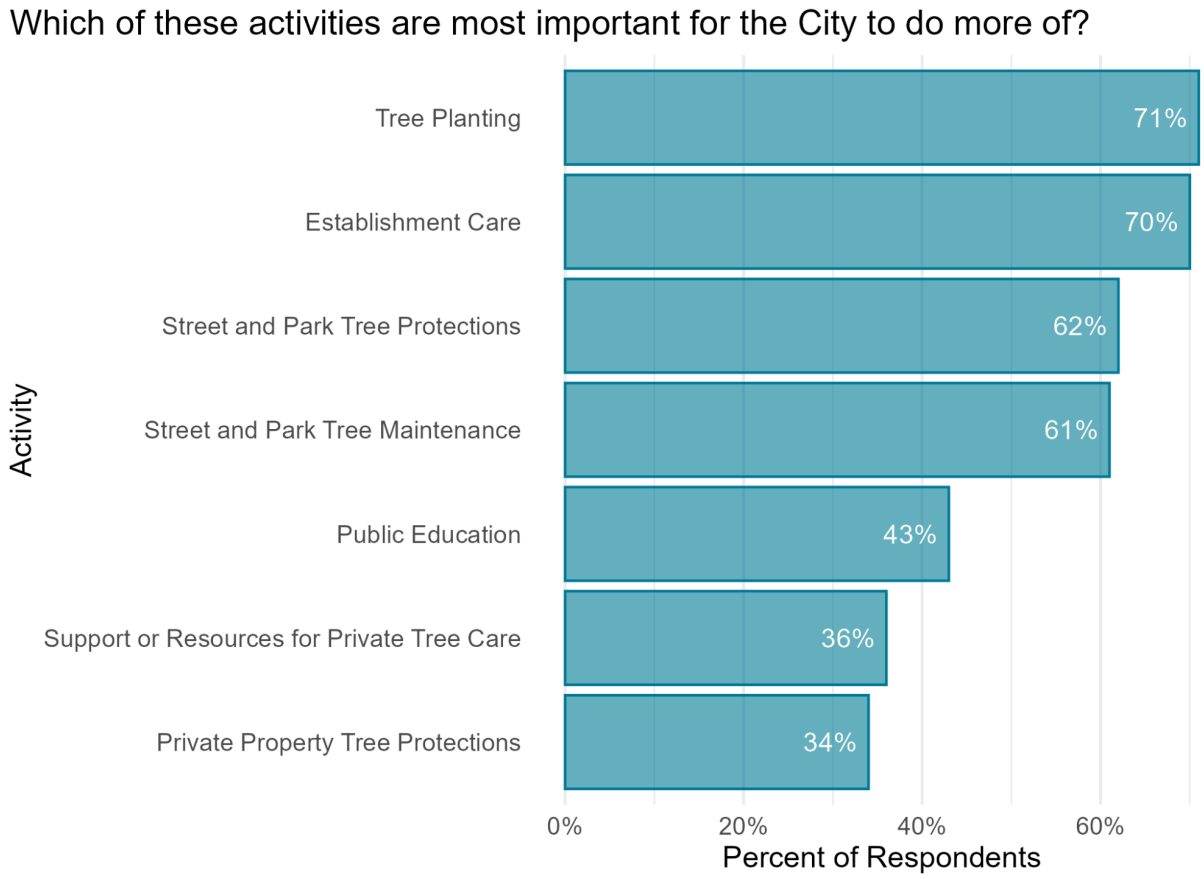
See Chapter 2, Section 2.3 Managing the Urban Forest for Climate Resilience for further discussion on air quality and the urban forest.

Figure 1.1 - Urban Forestry Benefits



Participants were also asked which urban forestry activities they wanted to see the City increase, again with no limit given on the number of options selected (see Figure 1.2). The two activities that the largest percentage of respondents wanted to see increased were tree planting (71%) and establishment care (70%). These were followed by two activities related directly to publicly managed trees, increasing activities for street and park tree protections (62%) and street and park tree maintenance (61%). The three remaining activities were selected by less than half of all respondents, this includes public education (43%), support or resources for private tree care (36%), and protections for private property trees (34%). All seven of these options are discussed in detail throughout this UFMP.

Figure 1.2 - Urban Forestry Activities that the City Should Do More



Quotes from UFMP Community Engagement Campaign Participants
"Our family walks in the summer made possible by neighborhood trees providing cooling and shade."
"My parents stay at home under the shade of their trees and rarely walk outside because there are few trees along our sidewalks."
"The guava tree at my house brought my family and neighbors together to enjoy its delicious fruit"
"Going from school, I see a tree with flowers and how the animals and butterflies land."
"It's always cool to think about how long a tree has lived and its history. It was likely planted before I was born and will far outlive me."
"My dad planted many trees in our backyard and its very sacred and inspiring to be able to give back to the earth and our community."
"Trees make me want to get out more. We spend so much time in our cars and indoors, but seeing trees makes me want to take more walks and also helps my mental health."

DRAFT

Chapter 2: Trees in the Urban Ecosystem

In addition to addressing each of the four pillars - planting, maintenance, preservation, and community engagement - comprehensive management of the urban forest also requires a systems-based approach that recognizes the ecological relationships and the diversity of landscapes across the region. The ecological role of a tree varies depending on its context - whether it grows along a riparian corridor, within a hillside ecosystem, on a neighborhood street, in a schoolyard, or within a dense commercial district. Decisions regarding tree planting, species selection, tree maintenance, tree protection and retention, ecological restoration, urban infrastructure, and land management should respond to local ecological conditions while considering how individual actions influence the function of the larger urban ecosystem.

This chapter describes the ecological systems that sustain the urban forest, the ways climate change is reshaping urban forest management, and the opportunities to strengthen ecosystem resilience through coordinated stewardship across Los Angeles.

2.1 Community Feedback on Trees and the Urban Ecosystem

See Chapter 1, Section 1.4: UFMP Community Engagement Campaign for more details on the engagement process.

Biodiversity and support of the local ecosystem were important priorities expressed by many participants in the community engagement led by the UFMP's community partners. As the City develops and densifies, community participants expressed their desire for a balanced approach that creates access and connectivity to nature. Community members want the City to utilize best practices to promote biodiversity when selecting species and placement. Community members also want clear protocols for tree care and removal to reduce harm to wildlife and provide support to ecosystem health. Further, the community expressed that the use of public space with living infrastructure should be maximized, particularly in low income, Black and Latino communities.

DRAFT

2.2 Understanding the Urban Ecosystem

Urban ecosystems are dynamic networks of living and non-living components that continuously interact to shape the health, resilience, and function of the urban forest. Rather than operating independently, trees, soils, water, biodiversity, climate, and the built environment influence one another through a complex web of ecological processes. Changes to one component often affect many others, reinforcing the need for an integrated approach to urban forest management.

The following sections describe the major ecological systems that support the region's urban forest and highlight why protecting these relationships is essential to achieving the City's long-term goals for climate resilience, biodiversity, water management, public health, and neighborhood livability.

Soils

Healthy soils form the foundation of a healthy urban forest. Beneath every tree exists a living ecosystem composed of minerals, organic matter, fungi, microorganisms, invertebrates, water, and air. Together, these biological and physical components regulate nutrient cycling, improve soil structure, store carbon, filter pollutants, retain moisture, and support healthy root development. The condition of the soil influences the health, longevity, resilience, and ecosystem functions of the trees with roots growing in it.

Urban development frequently disrupts these natural processes through grading, compaction, paving, excavation, and the removal of organic material. Routine maintenance practices, including excessive leaf litter removal and repeated soil disturbance, can further reduce biological activity and diminish long-term soil health. As a result, some urban tree failures are symptoms of degraded soil conditions rather than solely deficiencies in tree establishment care or other maintenance.

Improving soil health strengthens the resilience of the urban forest while simultaneously supporting stormwater infiltration, groundwater recharge, carbon sequestration, erosion reduction, drought resilience, and overall ecosystem function. Urban forest management is enhanced by recognizing soils as important ecological infrastructure. Healthy soils can be supported by strong tree protections during construction that preserve root zones around mature trees and limit soil compaction, utilizing mulch or other means to increase organic matter during tree planting and subsequent establishment care, and integrating soil restoration into planting, capital improvement, and habitat restoration projects.

DRAFT

Managing soils as living systems also reinforces the importance of coordination between urban forestry, landscape architecture, engineering, watershed management, and ecological restoration. Investments made below ground are often among the most important investments that can be made to support the long-term success of the urban forest above ground.

Water

Water and trees are inseparable components of the region's urban ecosystem. Trees influence the movement and quality of water by intercepting rainfall, reducing runoff, stabilizing soils, increasing infiltration, filtering pollutants, moderating stream temperatures, and returning moisture to the atmosphere through evapotranspiration. At the same time, the health and longevity of the City's urban forest depends on functioning watersheds, appropriate hydrologic conditions, and sustainable water management.

Historically, the rivers, streams, wetlands, floodplains, and groundwater systems of the Los Angeles Basin supported riparian forests and woodlands that shaped the region's ecology. Urbanization has significantly altered these natural systems through channelization, flood control infrastructure, groundwater extraction, and changes in land cover, impacting and reducing many of the ecological processes that once sustained native vegetation and wildlife.

As the City continues to invest in climate resilience and water security, opportunities exist to better integrate urban forestry with watershed management through nature-based stormwater projects, floodplain and riparian habitat restoration, recycled water infrastructure, and integrated capital improvements. Designing projects that simultaneously improve hydrologic function and support long-term tree health can increase the performance of public investments while strengthening resilience to drought, flooding, extreme heat, and climate change. For existing facilities and trees, maintenance and removal may be necessary when trees obstruct or impact water infrastructure like storm drains and channels, dams, pump stations, and water treatment facilities.

Because watersheds and water infrastructure extend across multiple jurisdictions and City departments, coordinated planning and stewardship are essential. Recognizing water as an ecological system, not simply an infrastructure system, helps maximize the long-term benefits provided by both the urban forest and the City's water resources.

DRAFT

Biodiversity and Habitat Connectivity

Biodiversity is a fundamental characteristic of a healthy urban ecosystem, while habitat connectivity enables biodiversity to persist across the landscape. Trees provide food resources, nesting sites, shelter, and movement corridors for birds, mammals, reptiles, amphibians, pollinators, insects, fungi, and countless soil organisms. In turn, these species support essential ecological processes that contribute to the health and resilience of the urban forest, including pollination, seed dispersal, decomposition, nutrient cycling, and natural pest regulation.

As one of 36 recognized global biodiversity hotspots, the Los Angeles region currently sustains over 4,000 species of plants and animals,[4] including many that are endemic to the region. The hotspot designation also indicates that Los Angeles' biodiversity is at risk, with threats coming from urban development and pollution. Increasing tree canopy alone does not necessarily increase biodiversity. Habitat quality depends on many factors, including plant diversity, structural complexity, native vegetation, healthy soils, water availability, and connections between habitat patches. Urban forest management that considers ecological function as well as addressing tree health and risk provides support to biodiversity efforts. This can be done by selecting appropriate tree species, protecting mature habitat trees, and supporting restoration of native plant communities where appropriate.

The urban forest also serves an important role in connecting the region's diverse ecosystems. Streets, parks, school campuses, utility corridors, residential landscapes, and other vegetated areas can function collectively as ecological stepping stones that allow wildlife and plant communities to move between larger habitat areas. As development continues, protecting and enhancing these connections will become increasingly important for maintaining biodiversity and ecological resilience. It will also be important to develop an understanding of which tree species support native insects, birds, and animals and enhance ecosystem services for different microclimates throughout the City.

The City has made significant progress in advancing urban biodiversity through the Department of Public Works (Public Works) Bureau of Sanitation and Environment (LASAN) Biodiversity Program team. This team developed the Los Angeles Biodiversity Index, Biodiversity Guidelines, baseline ecological assessments, community science initiatives, and preliminary work toward a Local Biodiversity Strategy and Action Plan. Although formal implementation of the LASAN Biodiversity Program was interrupted in

[4] UCLA https://sustainablela.ucla.edu/research-portal/project/biodiversity-atlas-la

2025, these efforts established an important scientific foundation for integrating biodiversity objectives into future urban forest management.

Climate

Climate shapes every component of the urban ecosystem, while the urban forest influences local climate conditions at multiple scales. Temperature, precipitation, humidity, wind, solar exposure, and seasonal variability affect tree growth, species distribution, soil moisture, water availability, and the ability of ecosystems to adapt to environmental change. Likewise, trees and other vegetation help regulate local microclimates by providing shade, reducing surface and air temperatures, storing carbon, slowing wind, increasing humidity through evapotranspiration, and moderating the urban heat island effect.

As climate conditions continue to change, maintaining a resilient urban forest will require managing for both current and future conditions. Species selection, planting design, irrigation strategies, maintenance practices, and protection of mature trees should all consider anticipated changes in temperature, precipitation patterns, wildfire risk, pests, and extreme weather. Building a climate-resilient urban forest therefore depends upon maintaining the ecological systems that enable trees to adapt over time, including healthy soils, functioning watersheds, and diverse habitats.

Built Environment

The built environment and the urban forest are often viewed as competing for space, and these tensions are discussed at length throughout the UFMP. In reality, the long-term resilience and livability of the City depend upon designing the built environment to function in partnership with natural systems. Buildings, streets, utilities, parks, schools, transportation corridors, and other public infrastructure all influence how ecological processes operate within the City, just as ecological systems influence the performance and resilience of the built environment.

Urbanization has replaced many natural landscapes with impervious surfaces that alter hydrology, compact soils, fragment habitat, limit tree growth, and contribute to elevated temperatures. At the same time, thoughtful planning and design can create opportunities for ecology to be reintegrated throughout the urban fabric. Streetscapes, plazas, campuses, stormwater facilities, transportation corridors, utility easements, and redevelopment projects can all be designed to support healthy trees while improving habitat, managing water, reducing heat, and creating more comfortable public spaces.

DRAFT

Successfully integrating ecology and infrastructure requires moving beyond conventional project delivery toward multidisciplinary design that considers ecological function from the earliest stages of planning. By designing infrastructure to work with natural systems, the City can create landscapes that simultaneously support mobility, public safety, climate resilience, biodiversity, and community well-being.

2.3 Managing the Urban Forest for Climate Resilience

Climate change is reshaping the environmental conditions under which the City's urban forest grows and functions. Rising temperatures, prolonged drought, more frequent extreme heat events, changing precipitation patterns, stronger storms, expanding pest and disease pressures, and increasing wildfire risk are already affecting tree health, survival, and long-term management throughout the region.

At the same time, a healthy urban forest is one of the City's most effective strategies for adapting to a changing climate. Trees help moderate urban temperatures, reduce energy demand, improve stormwater management, sequester carbon, enhance biodiversity, and improve public health. These benefits are maximized when the urban forest is managed as part of a resilient ecological system supported by healthy soils, functioning watersheds, appropriate species selection, and coordinated stewardship.

As climate conditions continue to evolve, urban forest management must evolve as well. Building a climate-resilient urban forest will require adaptive management practices, continued investment in workforce development, integration of emerging scientific research, and close coordination among City departments and partner agencies. Long-term resilience depends not only on expanding tree canopy, but also on ensuring that trees are planted, protected, and maintained in ways that allow them to thrive under future environmental conditions.

Climate Adaptation

Climate adaptation requires urban forest management practices that anticipate future environmental conditions rather than relying solely on historical experience. As temperatures increase and precipitation patterns continue to shift, species performance, maintenance needs, planting practices, irrigation strategies, and risk management approaches will also change.

Projected climate impacts for the Los Angeles region include increased frequency and intensity of extreme heat, drought, wildfire, severe storms, and emerging pests and diseases. These changes may require adjustments to species selection, planting

standards, inspection schedules, maintenance cycles, emergency response procedures, and long-term capital planning.

Maintaining a climate-ready urban forest will require ongoing professional development for City staff, continued collaboration with researchers and professional organizations, and regular evaluation of emerging science and management practices. Adaptive management must become a core principle of urban forest stewardship, enabling City departments to respond proactively as environmental conditions continue to change.

Heat Resilience

Extreme heat is among the most significant climate-related risks facing the Los Angeles region. While urban forest management is not directly responsible for overall heat resilience, trees and other vegetation play a critical role in reducing surface and air temperatures by providing shade, cooling surrounding areas through evapotranspiration, and improving overall thermal comfort. When strategically integrated into neighborhoods, transportation corridors, schools, parks, and public spaces, the urban forest can reduce heat exposure while supporting public health and quality of life.

Because heat vulnerability varies across the City, canopy expansion should be coordinated with broader planning efforts that prioritize communities experiencing the greatest cumulative heat burden. Continued coordination among the Office of Forest Management (OFM), Emergency Management Department's (EMD) Climate Emergency Mobilization Office (CEMO), Mayor's Office, and implementation of plans such as the Heat Action and Resilience Plan (HARP) and Local Hazard Mitigation Plan will help ensure urban forestry investments support the City's long-term heat resilience goals.

Air Quality

Air quality in Los Angeles is complex, it fluctuates throughout the day and across seasons and there are many different factors that impact shifts towards better or worse pollution levels and quality. The relationship between trees and air quality is equally nuanced. At the same time, the community questionnaire conducted as part of the UFMP community engagement campaign showed air quality as the urban forest benefit selected most frequently (88%) by respondents.

Trees have long been touted for their ability to improve air quality in multiple ways. Trees take in carbon, put out oxygen, and capture polluting particulate matter on their leaves. However, a growing body of research shows that the relationship between urban trees and air quality is complex, with some tree species having both positive and negative

impacts on different air quality components. Furthermore, the benefits trees provide to air quality is primarily mitigating the impacts of human-generated pollution. No amount of tree canopy can fully offset the level of pollution currently created in the region from burning of fossil fuels. Source pollution must also be reduced to truly change the air quality in the region.

Research conducted by USC[5] provides an assessment of the overall impacts different species have on air quality. When planning for tree planting, it is important to include and acknowledge air quality impacts as part of the species discussion. For example, early findings show that the coast live oak (*Quercus agrifolia*) removes substantial amounts of carbon and nitrogen dioxide removal from the atmosphere, while also having an adverse impact on PM 2.5 levels. This species also provides tremendous habitat benefits and shading value and is therefore an important species to continue to plant. This represents one of the many complexities that must be weighed in the process of considering which tree species is right for a specific location and context. City departments must continue to incorporate multiple factors as decisions are made and policies are set that impact the design of the urban forest.

Carbon Stewardship and Urban Wood Utilization

Trees capture and store atmospheric carbon throughout their lives, making the urban forest an important component of the City's broader climate mitigation strategy. Protecting mature trees, expanding canopy where appropriate, and maintaining healthy growing conditions all contribute to maximizing long-term carbon storage while providing numerous additional ecosystem benefits.

When trees reach the end of their life cycle, management decisions also influence the fate of stored carbon. While wood chips provide valuable mulch that supports soil health and moisture retention, opportunities also exist to retain carbon in long-lived wood products through urban wood utilization programs. Reusing salvaged urban wood as lumber, furniture, or other durable products supports circular economy objectives while extending the climate benefits provided by the urban forest.

As the City works to incorporate climate-related budgeting and looks toward achieving goals related to carbon neutrality, the benefits that trees provide related to carbon sequestration must continue to be used and understood, particularly when deciding whether to remove or retain existing trees. Recent research shows that urban trees in the

[5] USC Urban Trees Initiative Air Quality Research

region far out-perform their traditional forest counterparts when it comes to carbon sequestration.[6]

While including tree activities in climate budgeting exercises, and considering their potential role in greenhouse gas inventories, the City could also explore the potential for leveraging carbon markets to obtain limited funding for on-going tree maintenance activities. This has been explored preliminarily, but did not appear to provide a level of funding that would incentivize further development. However, some additional revenue could go to urban forest management activities, if the City developed a program for aligning with the type of monitoring and reporting required for compliance with carbon markets.

The City would benefit from developing a process to determine the highest and best use of street and park tree wood at the end of their life cycle. Current practice is to chip removed tree material into mulch. While mulch application supports healthy soils, chipped wood also releases the previously captured carbon back into the atmosphere. So other use options should be considered alongside chipping for mulch. Work within the urban forest discipline has looked at mechanisms and programs to harvest urban wood for use as lumber and wood products. This opportunity for a second life as a wood product not only supports circular economy goals, but it also keeps the sequestered carbon within the wood. Resources like "The Urban Wood Utilization Guide" and the Urban Wood Network continue to be developed to support cities in developing such a program.

This topic is also briefly discussed in Chapter 7, Section 7.4, Sub-section: End of Life Planning.

Wildfire and Urban Fire Resilience

Fire has long been a natural ecological process throughout Southern California landscapes. However, climate change, urban expansion, and increasing development within the wildland-urban interface have altered both the frequency and consequences of wildfire and urban conflagration fires. Urban forest management must therefore balance ecological understanding with public safety, infrastructure protection, and community recovery. In preparation, the City must consider the roles and opportunities it has to plan and protect the urban forest during the various fire-related phases: pre-fire preparedness activities, post-fire debris removal and other clean-up activities, post-fire rebuilding and recovery. While wildfires have been researched extensively to develop best practices, research and understanding of urban conflagration fires is limited. As it expands this research should be consulted and incorporated into City policy and programs.

[6] USC Urban Trees Initiative Air Quality Research

Urban trees are impacted by fires both directly and indirectly. Trees within burn areas are directly impacted by the fire itself. Some burn and die, some survive but are damaged, and some survive relatively unscathed. For urban fires, the urban forest is also impacted during cleanup and when construction activities occur as the community rebuilds. As with any construction activities, existing trees are vulnerable to removal decisions or damage when remaining trees are not properly protected. Trees can also be indirectly affected by fires as property owners make decisions to remove trees in response to insurance or other requirements or due to a perception that removing trees will provide additional protection.

Extensive research has been conducted on how trees and vegetation interact with wildfire, with standards created for spacing requirements at different distances from structures. However, more recent research has begun exploring urban conflagration fires and how vegetation and trees interact with these types of fires. Multiple studies point to building density, a measure of size and proximity of structures, rather than vegetation, as most strongly correlated with structure loss. Studies also show early findings that trees that are healthy, regularly inspected for pruning needs and removal of dead material, and have access to sufficient water are less likely to ignite, regardless of species. Furthermore, those trees are also less likely to have limb or full-tree failure during strong wind events, which are often associated with dangerous fire conditions in the Los Angeles region.

To that end, encouraging and supporting high-quality tree maintenance on private property would be a good first step for the City to take. However, urban conflagration fires are complex. Regulations in Very High Fire Hazard Severity Zones (VHFHSZ) focused on limiting fire risks should not solely consider tree and vegetation management, but rather include those strategies alongside comprehensive home hardening, zoning standards, and other development focused reforms.

Recent fires are an opportunity for the City to learn and consider if there are ways to increase support for the urban forest during the response and recovery phases. It is expected that fires will continue to impact the region, so planning now is critical. It is also important for the City to understand and consider where it fits within various decision-making processes. The City coordinates with federal and state agencies during the immediate cleanup phase, participating in meetings and requesting funding, but may not be the direct lead during this phase. After the 2025 fires, the City and Los Angeles County had to request that the federal agencies leading the clean-up create a process to utilize a tree waiver form to provide property owners an opportunity to retain and take

responsibility for trees slated for removal by cleanup crews. Because fires are a natural part of the local ecosystem, it is especially important to ensure tree evaluations and removal decisions include knowledge and expertise of the fire-adapted species native to Los Angeles.

Throughout the longer recovery phases, the City can influence private property decisions through information and guidance and impose direct requirements through codes and ordinances. In the aftermath of devastating events, such as fires, the City often waives existing private property requirements. On City-managed properties, such as parks and around facilities, the City is directly responsible for decision-making and implementation, but may face funding limitations. The City has limited purview and influence over property under the jurisdiction of other government agencies. All of these represent points at which the City could take action to support tree health throughout the recovery and rebuilding process. Without direct consideration, a higher number of trees are likely to be removed or to die or decline without enhanced maintenance or oversight post-fire.

Building fire-resilient urban forests requires planning before disasters occur, protecting healthy trees during emergency response and recovery, supporting science-based post-fire management, and coordinating across agencies to retain and restore canopy wherever appropriate. By integrating urban forestry into each phase of preparedness, response, recovery, and long-term adaptation, Los Angeles can strengthen both ecological resilience and community resilience in the face of future fire events.

2.4 Opportunities for Urban Ecosystem Stewardship

Understanding how the urban ecosystem functions creates opportunities to manage the urban forest more strategically. Because ecological processes occur across property boundaries, infrastructure systems, and jurisdictions, strengthening the urban forest requires more than planting additional trees. It requires protecting and enhancing the ecological relationships that allow trees, soils, water, biodiversity, and communities to thrive together.

The Los Angeles region contains a diverse mosaic of landscapes that are managed by many different landowners, agencies, institutions, and residents. Each landscape presents unique opportunities to improve ecological function through thoughtful design, stewardship, education, and collaboration. By recognizing these opportunities, the City can increase the long-term resilience of both the urban forest and the broader urban ecosystem.

DRAFT

Ecological Context Matters

The ecological role of the urban forest varies across Los Angeles because the City encompasses an extraordinary diversity of landscapes, microclimates, soils, watersheds, and development patterns. Trees growing along the Los Angeles River perform different ecological functions than those within coastal neighborhoods, hillside communities, commercial corridors, industrial districts, residential neighborhoods, or dense urban centers.

For this reason, urban forest management is stronger if it responds to the ecological context of each landscape rather than applying a uniform approach citywide. Decisions must weigh the full range of ecological functions and potential tradeoffs associated with each site rather than optimizing for a single objective. A species that provides exceptional habitat value may require different management than one selected for constrained infrastructure conditions. A restoration project may prioritize native ecological function over canopy expansion, while a streetscape project may emphasize shade, public safety, and pedestrian comfort.

A context-sensitive approach allows the City to maximize ecological function while creating urban forests that are resilient, adaptable, and reflective of Los Angeles region's diverse landscapes. Project design, maintenance practices, restoration priorities, and canopy goals should all consider the environmental conditions, opportunities, and constraints unique to each location. Understanding these relationships allows the City to make more informed, context-sensitive decisions that maximize multiple public benefits over time.

Ecological Restoration and Rewilding

Ecological restoration and rewilding focus on restoring ecological processes rather than simply increasing vegetation cover. While tree planting remains an important urban forestry strategy, restoration efforts seek to recover the relationships among soils, water, vegetation, wildlife, and natural disturbance that allow ecosystems to function over time.

In some cases, achieving ecological objectives may require removing invasive tree species, restoring native plant communities, reconnecting fragmented habitats, improving watershed function, or allowing natural ecological succession to occur. These actions, when thoughtfully applied to a specific context, will be complementary to urban forestry goals.

DRAFT

Managing the urban forest through an ecological restoration framework allows canopy expansion, biodiversity conservation, watershed health, wildfire resilience, and habitat restoration to reinforce one another while supporting the long-term ecological integrity of Los Angeles.

Streets Support Connected Ecological Networks

Streets connect neighborhoods, parks, schools, waterways, and open spaces, allowing the public right-of-way to function as an important corridor for shade, stormwater management, habitat connectivity, and neighborhood cooling. The criteria for tree selection for public right-of-way and other public spaces includes priorities related to longevity, ability to conform with roadway and utility clearances, shading capacity, and ability to grow with minimal support and present low-risk in the adverse conditions present within the heavily-developed environment of the public right-of-way. These criteria are important, however, due to the characteristics of tree species native to the region and typical site conditions available to street trees, these constraints can limit opportunities to use many locally native tree species. Fortunately, the area represented by the parkways where street trees grow and these limitations exist only represents a small percentage of the land area in the City.

Increased opportunities to use local native species, particularly oaks, more broadly in the public right-of-way could be supported by the City developing design standards and prioritizing development of locations for large stature species (as recommended in Chapter 6). This could also allow for enhanced connectivity between habitat patches supported by strategically designed streetscapes that also provide tremendous cooling benefits to humans. An example of this can be found at the intersection of Cesar Chavez and Spring Street, where coast live oak (*Quercus agrifolia*), valley oak (*Quercus lobata*) and desert willow (*Chilopsis linearis*) can all be found thriving around a large planting area between two intersections adjacent to downtown. This demonstrates that with sufficient rooting space and thoughtful design, larger native species can successfully contribute to both urban habitat and human comfort within the public realm.

See Chapter 6: Tree Planting and Establishment Care for recommended actions that would need to be taken to develop pathways for procurement and address known limitations to ensure local nurseries are building a supply of desired species so they are available when projects are ready to plant.

In addition to increasing the number of sites that could support native tree species, the City should continue to utilize research to look for opportunities to enhance the habitat benefit provided by its street trees. Funding and staff resources are also needed for researching and managing pilot projects to introduce new tree species, monitor their

performance to determine suitability for use in the public right-of-way, develop species' profiles, and train maintenance staff on their characteristics and care.

Private Property

Although public trees are often the focus of urban forestry programs, a substantial portion of the region's urban forest exists on private property. Residential landscapes, commercial properties, institutional campuses, and industrial sites collectively influence regional tree canopy, habitat connectivity, water infiltration, biodiversity, and neighborhood microclimates. Therefore, private lands collectively represent one of the City's greatest opportunities to expand ecological function because they comprise a substantial portion of Los Angeles' urban landscape.

Providing residents, property owners, landscape professionals, and developers with science-based guidance on appropriate tree selection, native vegetation, invasive species management, soil health, and water-wise landscape design can significantly expand the ecological benefits of the urban forest beyond publicly managed land. Future outreach efforts should emphasize that individual landscape decisions collectively influence the health and resilience of the City's broader ecological network.

Cross Departmental and Agency Stewardship

The agencies, institutions, and organizations that play important roles in managing the City's urban forest are discussed in greater detail in Chapter 3, Section 3.2 Managing the Urban Forest Across the City.

Because ecological systems do not follow jurisdictional boundaries, successful urban forest management requires collaboration among City departments, public agencies, utilities, educational institutions, nonprofit organizations, private landowners, and community organizations. Every entity that plans, owns, manages, or influences land contributes to the health and function of the urban ecosystem, regardless of whether urban forestry is its primary mission.

Many of the region's climate, biodiversity, watershed, transportation, parks, housing, and public health goals depend upon the same landscapes and ecological processes. Coordinated planning, data sharing, integrated project delivery, and long-term stewardship can therefore produce multiple public benefits while improving the efficiency and effectiveness of public investments.

DRAFT

Ecological Literacy

Successful urban ecosystem management depends not only on technical expertise and coordination, but also on ecological literacy. Residents, developers, designers, contractors, and City staff and decision-makers all influence the urban ecosystem and urban forest through daily decisions. Increasing ecological literacy enables better decisions at every scale - from individual tree care to neighborhood planning and citywide policy development - and strengthens long-term stewardship of the City's natural resources. Building this shared understanding among residents, practitioners, educators, developers, and public agencies is essential for creating an urban forest that can be sustained across generations.

Chapter 2 Summary of Recommendations

Recommended Strategies or Actions to Address in Current or Future Implementation Plans	Strategic Plan Connections
Understanding the Urban Ecosystem	
Support healthy soils through requirements for strong tree protections during construction that preserve root zones around mature trees and limit soil compaction.	**Strategy** A-11
Support healthy soils by utilizing mulch or other means to increase organic matter during tree planting and subsequent establishment care, and integrating soil restoration into planting, capital improvement, and habitat restoration projects.	**Strategy** A-11
Support healthy soils through collaboration between urban forest managers and other disciplines, such as landscape architecture, engineering, watershed management, and ecological restoration.	**Strategy** A-11
Conduct research to determine the most efficient and cost-effective strategies to ensure stormwater is directed to trees, where possible, to decrease supplemental irrigation needs and increase water capture and aquifer replenishment throughout the City, along with improving tree health.	**Strategy** A-9
Consider the best way to support increasing tree canopy in riparian areas, as appropriate.	**Strategy** A-9
Explore the feasibility of utilizing the region's recycled water resources to support watering trees.	**Strategy** A-9
Identify existing and potential habitat patches and corridors and assess the most appropriate methods for protecting and expanding these areas.	**Strategy** A-10
Maintain a strong internal team to develop biodiversity programs, provide technical assistance to City departments, engage and educate the public and provide regular reporting on the LA Biodiversity Index. Consider restoring funding for the LASAN Biodiversity Program team as a first step.	**Strategy** A-10
Develop an understanding of which tree species support native species and ecosystem services for each Ecotope and create recommendation lists for each Ecotope, including consideration of do not plant lists and species to prioritize planting.	**Strategy** B-2

Recommended Strategies or Actions to Address in Current or Future Implementation Plans	Strategic Plan Connections
Continue to provide annual training relating to tree care for birds and other wildlife to all City staff who work with trees, and include additional training on biodiversity and habitat considerations as appropriate.	**Strategy** E-2
Continue to include consideration of the region's changing climate in tree species decision-making for new planting projects.	**Strategy** E-7
Plan for climate change by considering necessary adjustments to planting design, irrigation strategies, maintenance practices, and protection of mature trees that may be required due to anticipated changes in temperature, precipitation patterns, wildfire risk, pests, and extreme weather.	**Strategy** A-8
Consider the best processes for the City to design infrastructure that works with natural systems, including the best method for considering ecological function early in planning stages.	**Strategy** A-10
Managing the Urban Forest for Climate Resilience	
Provide ongoing professional development for City staff to support urban forest management programs in aligning with and responding to climate change.	**Strategy** E-2
Continue to participate in and support urban forest, climate, and public health research to understand vulnerabilities, impacts, and opportunities. Utilize this research to develop urban forest management policies and programs that address climate vulnerability and urban conditions.	**Strategy** D-8
Align implementation of the UFMP and Heat Action and Resilience Plan (HARP) implementation between the relevant City departments.	**Strategy** A-8
Continue supporting research to understand tree impacts on air quality in Los Angeles and create program and policy recommendations based on research findings.	**Strategy** D-8
Assess the most appropriate solution to biomass reutilization, supporting mulch needs for soil health and also considering ways to keep carbon sequestered within lumber or other wood products.	**Strategy** E-10
Align implementation of UFMP and City targets related to carbon and greenhouse gas accounting, including consideration of urban forest management actions and tree assets and the role both play in carbon sequestration.	**Strategy** A-8
Explore the possibility of utilizing carbon markets to prioritize tree preservation and provide modest funding for the urban forest. Research and create processes for developing and trading urban forest carbon registry projects.	**Strategy** G-6
Assess disaster response plans for inclusion of trees or the urban forest as part of the recovery phases.	**Strategy** A-12
Create and adopt standard operating procedures for trees as part of the City's response to wildfires and urban fires.	**Strategy** A-12
Support nuanced fire preparation policies that allow for tree canopy in urban areas that are within high fire severity zones.	**Strategy** A-12

DRAFT

Recommended Strategies or Actions to Address in Current or Future Implementation Plans	Strategic Plan Connections
Opportunities for Urban Ecosystem Stewardship	
Incorporate consideration of ecological context into urban forest planning for projects designed by the City, nonprofit planting partners, or other outside entities.	**Strategy** A-10
Support spaces in the public right-of-way that are appropriate for native tree species by developing design standards and prioritizing development of locations for large stature species.	**Strategy** A-3
Develop protocols for testing new species for use as street trees and create clear criteria for success. Continue to review current research and collaborate with other municipalities. Provide updated guidance on species selection through revised criteria or lists, as appropriate, based on pilot outcomes. (See also Chapter 6: Tree Planting and Establishment Care)	**Strategy** D-2
Provide private property owners with science-based guidance on appropriate tree selection, native vegetation, invasive species management, soil health, and water-wise landscapes.	**Strategy** F-5
Support cross-department, inter-agency, and public-private collaboration on urban ecosystem management as part of urban forest management.	**Strategy** F-1
Explore the best methods for supporting broader public ecological literacy.	**Strategy** F-5

DRAFT

[This page left intentionally blank]

DRAFT

Chapter 3: History and Governance of Trees in Los Angeles

Achieving urban forest goals requires continued and consistent actions and decision-making around trees. Prior to discussing tree management activities and industry best practices, the complex urban context must be understood. This includes the robust slate of actors that impact trees and the laws, policies, and plans governing them. This chapter also reviews previous analysis and reports developed to describe and recommend improvements to the urban forest and a limited discussion of challenges and opportunities related to the structure of the City's departments and hiring processes that impact trees.

3.1 Community Feedback

See Chapter 1, Section 1.4: UFMP Community Engagement Campaign for more details on the engagement process.

Confusion around what entity is responsible for different aspects of urban forest management in the region and a desire to see increased interdepartmental and interagency collaboration were important priorities expressed by many participants in the community engagement led by the UFMP's community partners.

Participants in the community engagement campaign expressed ongoing confusion related to which City department or other government agency is responsible for different aspects of urban forest management. They described experiences of feeling passed from one City department to another when asking a question or requesting services. In areas along the boundary between the City and Los Angeles County this confusion is heightened, with many residents unclear on the difference between these two jurisdictions.

A number of locations that many participants noted as important for the City to address are not actually under the City's jurisdiction. This includes school campuses and land adjacent to freeways. Many residents wanted to see the City collaborating and ensuring high-quality shade at local schools, and in particular working closely with the Los Angeles Unified School District (LAUSD), as the second largest district in the nation and the second largest landowner in the City. Freeway on-ramps and off-ramps, under the jurisdiction of the California Department of Transportation's (Caltrans), came up as opportunity sites for greening and shading sidewalks alongside freeways. Participants

noted that these are areas that are particularly unpleasant for pedestrians and have large soil areas, and therefore high potential for canopy increase. Some freeway easements already have high tree canopy. In these cases, residents commented that trees should be protected as the removal of that canopy would remove protections from noise and air pollution for residents living close to the freeways. Residents also expressed frustration about the unsightly line clearance performed by utility crews or tree removal for siting of utility elements.

3.2 Managing the Urban Forest Across the City

See Appendix A for a brief overview of all entities that impact the City's urban forest.

Urban forestry is complicated precisely because of the many decision-makers that can impact urban trees. There are trees that:

- **City departments are actively managing**, such as street trees and trees in publicly-accessible park areas
- **City departments are not actively managing**, such as trees in open space park areas that are not accessible for recreation and some public right-of-way trees on hillsides
- **Other government agencies are managing**, such as trees on County or California State facilities and parks, Caltrans land, and on LAUSD campuses
- **Private property owners or managers are responsible for**, this includes residential, commercial, and industrial properties

Office of Forest Management

OFM was created within the Board of Public Works in 2019 with the creation of the City Forest Officer position. OFM, led by the City Forest Officer, was charged with the following: "...provide technical expertise on urban forestry-related policy and programs to city staff and elected officials; and serve as the citywide subject matter expert overseeing all city policy and interdepartmental programs related to trees, specifically those associated with the Public Works, Department of Recreation and Parks, and the Department of City Planning. [OFM is] ...responsible for the management of citywide tree forest program, policy and strategic planning, stakeholder engagement and community outreach, and fiscal and grants management." The City's Fiscal Year 2025-26 Adopted Budget moved OFM from Public Works to City Planning.

Los Angeles City Planning's (City Planning) **Office of Forest Management** (OFM) is responsible for providing technical guidance to the City on the whole urban forest. OFM is not responsible for direct tree asset management activities. The Department of Public Works (Public Works) Bureau of Street Services (StreetsLA) Urban Forestry Division (UFD) is responsible for managing street trees and the Department of Recreation and Parks

Forestry Division (RAP Forestry) is responsible for managing park trees. Many other City departments also have impacts on the urban forest - both positive and negative, and in large and small ways. And finally, many non-City entities, from other government agencies to individual residents, also make decisions that impact trees.

TREES BY THE NUMBERS

It is estimated that there are 10 million total trees within the City's urban forest, with up to 80-90% growing on private property.

- The **Department of Public Works, Bureau of Street Services, Urban Forestry Division (UFD)** is responsible for 660,000 street trees, also called public right-of-way trees.
- The **Department of Recreation and Parks (RAP) Forestry Division** is responsible for managing roughly 138,000 park trees and 16,000 acres of parkland.
- There is an unknown number of trees on **City facilities and properties** and no clear designation of which City department is responsible for managing these trees.
- The **Los Angeles Department of Water and Power (LADWP)** manages approximately 7,239 acres (or 11 square miles) of land within the City boundary, much of which contains trees. The exact number of trees is currently unknown, the portfolio is understood to be large and distributed across many sites.
- The **Los Angeles World Airport (LAWA)** manages approximately 4,530 acres (or 7 square miles) of land within the City boundary. The exact number of trees is currently unknown.
- The **Los Angeles Harbor Department (Harbor Department)** is responsible for managing over 6,500 trees as documented by a partial inventory assessment.
- The **Los Angeles Zoo (Zoo)** covers 133 acres of land contiguous with Griffith Park. The exact number of trees is currently unknown.

Trees on City-Owned or Managed Facilities and Properties

The UFMP focuses its attention mainly on street and park trees when it comes to trees under direct City jurisdiction, the management of which are discussed at length through the document. However, there is also an unknown number of trees growing in City-owned or -managed areas not under the jurisdiction of UFD or RAP Forestry. This includes trees around City facilities and community centers and trees on land managed by the Los Angeles World Airport (LAWA), the Los Angeles Harbor Department (Harbor Department), and the Los Angeles Department of Water and Power (LADWP). These properties range from very urban settings, with limited room for trees around facilities, to large open spaces with high capacity for large stature trees.

DRAFT

General Services Department (GSD)

The General Services Department (GSD) is responsible for 608 City facilities and 270 vacant or surplus properties. City facilities include City service yards and shops, municipal and neighborhood City Halls, Los Angeles Public Library (LAPL) facilities, Los Angeles Police Department (LAPD) and Los Angeles Fire Department (LAFD) stations, Los Angeles Housing Authority (HACLA) properties, and homeless shelters. While GSD is responsible for maintaining the buildings at City facilities, there is a responsibility gap when it comes to areas outside of the physical structures but still on City property, with trees and other landscaping often in these areas. GSD does not currently plant trees at these locations, and cautions against including new trees at new facilities due to the lack of resources for ongoing maintenance.

Responsibility for these trees is not clearly defined, resulting in inconsistent or no maintenance. GSD is not funded nor authorized to employ any staff from the City's current tree classifications either for direct tree work or for managing tree-related contracts. At certain facilities, such as the downtown City Hall, landscaping maintenance is conducted through RAP contracts, with trees potentially left out of these contracts. At public libraries, LAPL utilizes their own contractors to conduct landscaping and tree maintenance. There are also trees growing on vacant or surplus parcels that are under GSD jurisdiction, which do not receive regular maintenance or management. Occasionally nuisance abatement funding is utilized to trim trees on these properties, but this does not represent ongoing management.

The City would benefit from first inventorying all trees at City facilities and on vacant or surplus parcels within the GSD real estate portfolio. This process should include clearly documenting which trees fall under the jurisdiction of GSD, UFD, RAP, or other City departments for all areas. Locations where jurisdiction is especially unclear, such as at the Van Nuys City Hall, should be considered for first prioritization.

The City would also benefit from codifying which City department is responsible for trees at City facilities and properties in GSD's real estate portfolio. City decision-makers should consider the best path forward for management of these City tree assets. This should include consideration both of keeping these trees under GSD jurisdiction and moving management of these trees to RAP Forestry. Regardless of which department is ultimately assigned responsibility, it must be supported by an increase in staffing to either perform all tree work or allow for high-quality oversight of contracted work. GSD does not currently have the expertise or capacity required for this and RAP has the expertise, but does not have the capacity to absorb these trees without increased staff and related resources.

These trees should be actively managed. To achieve this, the City should complete an assessment to understand the needed resources for successful management. This assessment should include data from an inventory and consideration of work related to both maintenance of existing trees and planting of new trees. This assessment should also consider three implementation scenarios - conducting all work with City personnel, providing the necessary City staff with technical expertise to appropriately oversee all work done through contracts, and a hybrid option.

Los Angeles Zoo

The Los Angeles Zoo (Zoo) is located on 133 acres of land contiguous with Griffith Park and cares for more than 230 species of wildlife, nearly a quarter of which are listed as endangered. The Zoo's botanical collection comprises numerous planted gardens with more than 800 species. The Zoo has added more than 70,000 square feet of native California gardens over the last five years, guided by its first Conservation Strategic Plan, launched in 2021. As both an accredited zoological institution and a City department, the Zoo integrates conservation science, animal welfare, and community engagement into its operations, with its living collections and natural landscapes serving as resources for research, education, and habitat stewardship.

In April 2025, the Zoo and the local nonprofit organization Outward Bound Adventures began the Oak Woodland Restoration and Career Pathways project, a five-year partnership focused on restoring native oak woodland habitat on Zoo grounds. The project includes construction of a native plant nursery, where oak and other native tree species are propagated and planted as part of ongoing restoration efforts. The partnership also supports research to inform oak woodland restoration practices, helping build a stronger scientific foundation for similar restoration efforts elsewhere in the City and region. In addition, the project is developing a workforce of trained conservation professionals from diverse and underrepresented backgrounds, creating career pathways in ecological restoration and building a pipeline of skilled practitioners to carry this work forward into the future.

Los Angeles Harbor Department

The Los Angeles Harbor Department (Harbor Department) manages the Port of Los Angeles (port), which is a key connection for North American international trade and one of the world's busiest seaports. It covers 4,300 acres of land and water along 43 miles of waterfront. This includes areas utilized for shipping activities as well as the LA Waterfront, a 400 acre tourist and commercial area connected to the adjacent San Pedro

DRAFT

and Wilmington neighborhoods. While some areas of the Port have specific uses that limit the capacity for tree canopy, the areas designed for community use do include trees.

The Harbor Department has conducted a partial inventory of trees within its jurisdiction, which has documented approximately 6,500 trees. While the Harbor Department does not have specific, set benchmarks for trees or canopy, projects created through the public access improvement fund, such as waterfront beautification and park projects, may include new trees. When planting new trees, the Harbor Department provides tree specific irrigation through bubblers. In addition to the irrigation crew that provides maintenance to these systems, the Harbor Department has a tree maintenance crew. This crew is made up of tree surgeon and tree supervisor job classifications and conducts preventative maintenance activities.

Los Angeles World Airports (LAWA)

The Los Angeles World Airports (LAWA) include the Los Angeles International Airport (LAX), the Van Nuys Airport (VNY), and the Palmdale Airport (PMD). Between these three airports LAWA managed approximately 22,030 acres, with 4,530 acres within the City boundary. The operations and built infrastructure of the LAWA airports are governed by local, state, and national laws and regulations. Collisions between wildlife, most commonly birds, and airplanes is a major concern that limits what landscaping is appropriate in and around airports. These limitations include trees and their canopy. However, LAWA does have trees under its jurisdiction, but does not have an inventory of these trees. Tree trimming and other management work for these trees is accomplished through contractors.

LAWA is also responsible for the LAX Dunes, a 307 acre area of coastal sand dune habitat located between the Pacific Ocean and LAX. LAWA restoration work in this area has been ongoing since the 1980's. This habitat is home to many species of plants and animals, including the federally endangered El Segundo Blue Butterfly as well as other sensitive species. The LAX Dunes currently includes a number of palms and tree species, which are remnants of a former housing development. Because trees are not naturally part of southern coastal sand dune habitats, restoration projects for the LAX Dunes have not included trees.

Los Angeles Department of Water and Power (LADWP)

The Los Angeles Department of Water and Power (LADWP) has a wide range of urban trees under its purview, some around buildings and facilities and others in open spaces such as those surrounding reservoirs. LADWP manages 7,239 acres of land within the City boundary, roughly 2% of the total area of the City. The total number of trees growing

within this area is unknown. This UFMP only considers LADWP tree assets within the City boundary.

Within the City, LADWP maintains tree resources across a variety of operational sites, including reservoirs, potable water tanks, water treatment facilities, pump stations, service centers, power generating stations, substations, and landscaped grounds adjoining administrative buildings. Trees at these locations provide multiple functions such as shade for customers and employees, stormwater capture benefits, visual screening of utility infrastructure, and improved site aesthetics. Open-space LADWP properties within the City boundary, including lands around reservoirs and distribution facilities, also support tree canopy that contributes to erosion control, habitat value, and public-facing landscape quality.

Agencies, Institutions, and Other Major Land Managers

The City will have a challenging time meeting its canopy goals if regional land owners and agencies that impact urban forest assets are not also prioritizing trees in their decision-making and design. By working collaboratively with these partners, the City can support its ability to meet canopy targets.

These agencies and institutions can support City urban forestry goals and canopy targets by retaining existing trees for their full life span, planning and designing for new trees thoughtfully, and managing their trees per industry best practice. When there is a new or emergent pest or disease, collaboration from these groups with the City and County on addressing containment and management is imperative. New projects and modifications of existing sites should consider strategic shading and tree canopy for human comfort and minimizing exposed paved areas that increase heat, as well as how projects and sites can incorporate nature-based solutions to improve habitat connectivity and ecosystem function.

Los Angeles County Metropolitan Transportation Authority (Metro)

The Los Angeles County Metropolitan Transportation Authority (Metro) plans, designs, implements, and maintains large-scale projects within the City, many of which include or impact trees. This includes tree removals as part of installing new transportation infrastructure and facilities, as well as decisions to include or exclude trees when designing new stations, other public facilities, and joint development projects on Metro-owned land. While urban forest management is not directly part of Metro's mission, trees are an integral part of creating a pleasant and safe environment for Metro's transportation riders.

Metro adopted a Tree Policy in 2022 that states Metro will "plan and design new construction or additions so that large trees… are preserved." The policy also discusses Metro's plan for protecting trees retained within areas impacted by construction, baseline replacement ratios for trees that are removed, species selection for new tree plantings, and an establishment care regime. To fulfill Metro's commitments to equity, heat island mitigation, and rider comfort, project teams are directed to seek opportunities for net canopy growth that will expand tree coverage across transit corridors, stops, and adjacent Metro properties beyond minimum required replacement counts.

The City and Metro have a Master Cooperative Agreement (MCA) that establishes procedures for City coordination and review of Metro transportation projects. Through the MCA, the City reviews Metro projects for compliance with City standards, including tree removal and replacement requirements. In addition, the City and Metro intend to establish an Operations and Maintenance Agreement that will help to establish consistent expectations for maintenance responsibilities for all future Metro projects.

Los Angeles Unified School District (LAUSD)

The Los Angeles Unified School District (LAUSD) is the second largest school district in the United States, covering a jurisdiction of over 700 square miles that includes most of the City boundary and all or part of 25 nearby cities or unincorporated county areas. LAUSD has over 1,500 schools and other centers within its portfolio and serves over 500,000 students annually. With schools and other centers well spread out within the region, these campuses represent great potential for both increasing overall canopy and improving access to canopy within the City. This was a key area of feedback within the UFMP outreach campaign, as every workshop had participants asking about partnership with LAUSD and increasing green space on campuses, as schools represent key community hubs in all neighborhoods across Los Angeles.

LAUSD has limited funding for long-term maintenance of trees and landscaping on its campuses and a need to manage risk in heavily-used facilities. These considerations impact the willingness of decision-makers or facility managers to plant new trees. Many research and grant programs are focused on greening school campuses. Not only is increased tree canopy important for student health, but it could also be a key contributor to the City's tree canopy goals, especially those focused on distributional equity. While these programs are outside the City's jurisdiction, any support the City can provide to these programs will also support its own tree canopy goals.

LAUSD also provides a potential for partnership on community engagement and education related to urban forestry. Schools play an important role as community hubs,

both in terms of hosting community events and in disseminating information to students and families. These existing roles and pathways for engagement make schools a potential partner if teachers and administrators have capacity to include the urban forest in new or existing curricula and programming.

California Department of Transportation (Caltrans)
Freeway easements are under the jurisdiction of the California Department of Transportation (Caltrans) and include many trees and other landscaping. For many communities, these trees not only add to the overall canopy cover, but also provide buffers and ecosystem benefits for Angelenos living near high pollution generating freeways. The City, and its tree canopy goals, would benefit from Caltrans assessing what spaces under its jurisdiction have capacity for activities that support tree canopy increase, including tree planting and preservation.

Institutions
The City is home to many public and private institutions that own and manage land. This includes universities and colleges, hospitals and other medical campuses, religious groups, and more. Supporting these institutions in aligning their land management practices with the City's urban forestry, biodiversity, and other environmental goals will aid the City in success.

The City already has partnerships with several research institutions, and could look to deepen and expand these relationships. Partnerships with these colleges and universities provide opportunities to further urban forest research on topics of interest to the City. These institutions also have active student populations that could be engaged in service learning, developing and implementing pilot projects, volunteerism, or workforce development in the urban forest or related fields.

State, Federal, and Regional Agencies
The City both is near and contains within its boundaries several areas conserved for public recreation by state and federal agencies. While the City is not responsible for their management, the City benefits from supporting the conservation, connection, stewardship, and potential expansion of these spaces. These protected areas provide tremendous ecological value to the region as well as important recreation and access to nature for Angelenos.

Other Groups That Impact Trees

There are many groups within and outside of the City that impact trees and the urban forest without being direct land managers. This includes:

- **Nonprofit and community-based organizations** that plant trees and care for young trees, conduct community engagement and education, provide Angelenos with volunteer opportunities, and acquire and administer philanthropic and grant funding for projects within the City.
  See further details in Chapter 4: Equity and Canopy Expansion, Chapter 6, Section 6.3: Who Funds and Plants Trees?, and Chapter 9, Section 9.3, Sub-Section: Nonprofit Partners
- **Community Forest Advisory Committee (CFAC), Neighborhood Councils, and other official City advisory bodies** that provide a public forum for Angelenos to discuss their concerns and can provide the City with formal advice, Community Impact Statements (CIS), and other feedback.
  See further details in Chapter 9, Section 9.3, Sub-section: City Advisory Committees and Councils
- **Private entities** that develop land, which may include tree planting or preservation, or that conduct tree maintenance activities.
  See further details in Chapter 6, Section 6.3: Who Funds and Plants Trees? and Chapter 7, Section 7.3: Who Maintains Trees?

3.3 Urban Forest Governance

State and Federal Codes, Laws, and Regulations

The urban forest is impacted by codes, laws, and regulations at the federal and state levels. The City can advocate to federal and state decision-makers for new or updated legislation, but does not have direct decision-making power at this level. See Appendix B for an overview of the current state and federal codes, laws, and regulations that directly reference and impact trees, including the following:

- California Public Utilities Commission
- California State Public Resources Code (PRC)
- California Environmental Quality Act (CEQA)
- National Environmental Protection Act (NEPA)

There are additional areas of state and federal oversight that have potential consequences for trees, including rules related to traffic management and housing oversight and density not detailed within Appendix B, that should be further considered.

Los Angeles Charter and Administrative Code, Los Angeles Municipal Code (LAMC), and City Ordinances

The City governs itself and impacts the urban forest through the Los Angeles Charter and Administrative Code and the Los Angeles Municipal Code (LAMC). City decision-makers

DRAFT

can enact updates to the Charter and Administrative Code through City Charter reform efforts and to the LAMC through requesting and adopting City Ordinances.

The Charter and Administrative Code and LAMC sections that directly reference trees do the following:

- Establish RAP as the City department responsible for park trees
- Set private property development landscape and tree requirements
- Provide protections for street trees against injury
- Set maintenance requirements for tree clearances in the public right-of-way and for brush clearance
- Establish the Board of Public Works (BPW) as the City department responsible for street trees

A number of City Ordinances have directly referenced trees, some of those:

- Set various tree related fees
- Establish a process and allow in-lieu fees to be paid when certain required new or mitigation trees cannot be planted
- Establish protections for specific private property trees
- Update the Original Zoning Code's (Chapter 1) landscape requirements for certain development projects

See Appendix C for a detailed review of the sections of the Charter and Administrative Code, LAMC, and City Ordinances listed below:

- Los Angeles Charter and Administrative Code; Section 590
- Los Angeles Municipal Code (LAMC)
    - Chapter I - General Provisions and Zoning (Original Zoning Code)
    - Chapter 1A - City of Los Angeles Zoning Code (New Zoning Code)
    - Chapter IV - Public Welfare
    - Chapter V - Public Safety and Protection
    - Chapter VI - Public Works and Property

- City Ordinances
    - Street Tree Permit Fees - Ordinance No. 166973
    - Tree Replacement and Planting In-Lieu Fee - Ordinance No. 185573
    - Street Tree Inspection Clearance Fee - Ordinance No.186476
    - Protected Tree and Shrub Ordinance (PTO) - Ordinance No. 186873
    - Landscape and Site Design Ordinance (LSDO) - Ordinance No. 189065

DRAFT

In order to maintain strong urban forest management, the Charter and Administrative Code and LAMC sections that reference and impact trees must be assessed and updated periodically. This allows for technical corrections, changes to Code sections not functioning as intended, and updates to match the City's current conditions. In order to ensure this occurs regularly, OFM should request feedback from City departments on needed adjustments and include recommendations for necessary updates within the UFMP's 5-year Implementation Plan updates.

Specific recommendations for necessary ordinance updates that are needed immediately to change sections of the LAMC related to fees and the PTO are included in Chapter 10: Funding the Urban Forest and Chapter 8: Tree Preservation, respectively.

Los Angeles General Plan Elements

The City's General Plan consists of 11 citywide elements (or chapters) in addition to a Land Use Element, which is composed of 34 Community Plans. The General Plan prescribes policy goals and objectives that inform land use decisions, and ultimately shape and guide the physical development of the City. Policies related to urban trees and canopy currently exist in many elements, and the urban forest is either impacted by or can positively impact topics covered in each element.

The Elements with the greatest impact on the urban forest include the Community Plans of the Land Use Element, the Housing Element, Mobility Element, Conservation Element, and the Open Space Element. Future updates to Elements should continue to include alignment with the recommendations within the UFMP.

See Appendix D for a review of the urban forest impact and references in each Element of the City's General Plan.

Recent City Assessments, Plans, and Mayoral Initiatives

Various City assessments, plans, and Mayoral initiatives have been developed in recent years that are related to and/or set targets and goals for the City's urban forest. It is important to continue cross-departmental collaboration to support alignment in targets and goals, as well as coordinate implementation of these related workstreams. See Appendix E for a more detailed review of the following assessments, plans, and Mayoral initiatives:

- City Assessments:
  - Climate Vulnerability Assessment (CVA), 2025
  - Biodiversity Index Baseline Report, 2022 and 2025

- City Plans:
  - Climate Action and Adaptation Plan (CAAP), anticipated release 2027
  - Heat Action and Resilience Plan (HARP), anticipated release 2027
  - Capital Infrastructure Plan/Program (CIP), 2026
- Mayoral Initiatives:
  - Mayor Bass' Climate Action Plan for Los Angeles, 2026
  - LA's Green New Deal: Sustainable City pLAn, 2019

3.4 Previous Urban Forest Assessments and Reports

Over the last few decades, numerous assessments and reports were created to analyze the City's urban forest and its management, including:

- 1993 Urban Forest Task Force report
- 2015 State of the Street Trees Report
- 2018 First Step: Developing an Urban Forest Management Plan for the City of Los Angeles report
- 2019 Controller Tree Trimming and Maintenance Audit and 2023 Update

Summary analysis of each report and its recommendations can be found in Appendices F - I.

While these documents span decades and have differing exact focuses, many of the challenges raised and recommendations included are similar or repeating. Some recommendations have been addressed completely, some were previously addressed but will need consideration again in the future, and some were never resolved.

The outstanding topics of concern raised across these assessments and reports are addressed throughout this UFMP. These topics require ongoing commitment and resources to maintain necessary service levels and desired outcomes. These topics include the following needs and priorities:

- **Coordination, planning, and management:**
  - Unified coordination efforts across City departments for urban forest management
  - Increased planning and leadership positions within City departments managing tree assets
- **Increased capacity and resources for tree programs**, particularly for:
  - Tree planting
  - Pruning cycles to meet industry standards
- **Inventory data**, with regular updates
- **Public outreach and engagement**

3.5 City Structure Challenges and Opportunities

This section discusses City bureaucratic structures that are not directly tied to urban forest management but impact available resources and therefore success. As discussed throughout this UFMP, increased urban forest funding is imperative. However, ensuring a robust future for the urban forest requires more than just increased financial support; it necessitates fundamental changes to the City's fiscal procedures and organizational framework of urban forest management. While securing additional funding is a primary goal, its effectiveness depends on the City's capacity to deploy those resources for hiring and retaining qualified personnel and executing essential maintenance and planting operations.

The City must also evaluate how its capital planning and budgeting process can better support urban forest management, a field that requires weighing long-term efficiencies and cumulative cost savings over decades, rather than on an annual basis. The April 2026 LA Charter Reform Commission Report includes recommended reforms under "Theme 3: Improve Long-Term Planning and Service Delivery" that could bolster these efforts, such as implementing a two-year budget cycle with participatory budgeting. Though such reforms would not solve all existing challenges, they represent a constructive step forward.

Several critical areas related directly to urban forest management requiring attention are discussed below. This includes:

- City structure of urban forestry management, ensuring clear understanding of responsibilities and enhancing support for urban forest funding requests in the budget process
- Broadening the recruitment pool for urban forestry roles
- Formalizing the City's tree management policies and programs through clear and transparent documentation

City Department Structure for Management of Trees at Parks, City Facilities and Properties, and on Streets

Currently UFD and RAP Forestry are divisions within much larger City departments that have a range of responsibilities. This structure forces urban forestry priorities to compete directly with a vast array of other departmental needs during the internal budget development process. Consequently, essential tree-related requests are often deprioritized before they even reach the citywide budget stage, where they must then compete against all other General Fund programs. City decision-makers could consider

structural changes that would elevate green, living infrastructure within the budget process as these important public assets have been historically undervalued and yet provide the City with critical public health and ecosystem benefits.

Given the City bureaucracy's size and complexity, there are many options for how urban forest management could be structured. This ranges from a single department responsible for all trees (as well as other natural systems and environmental issues) to fully dispersed responsibility, where each department with trees under its jurisdiction has an urban forestry division or unit. There are pros and cons to each structural option, and no option fully protects tree management within the City's budgeting process.

The UFMP includes recommendations for some structural changes. Recommendations that are included are based on making small or medium shifts from the City's current structure and existing City departments. Analysis and recommendations for major restructuring, like creating a single department, are not included as detailed recommendations in this UFMP. However, that does not mean City decision-makers cannot consider larger shifts, if there is political support for such an assessment. OFM and other relevant City departments should be consulted if larger changes are being considered.

Park Trees

Housing urban forest management for park trees within RAP means that a single City department is responsible for making all decisions about park lands, including park forestry. This is helpful in many ways, so at this time it is recommended that park tree management stay within RAP.

At the same time, consideration should be given to ways to elevate RAP Forestry within the larger department structure, especially when it comes to budget processes and filling vacant staff positions while also achieving necessary department salary savings. Further analysis must be conducted on the best way to achieve this.

Street Trees

It is helpful to have street tree management housed within Public Works alongside other infrastructure in the public right-of-way. However, there are a variety of structural changes that City decision-makers could consider to support overall street tree management. This includes the following options:

DRAFT

1. **Establish a Bureau of Green Infrastructure within Public Works** bringing together all disciplines involved in the lifecycle of a project. This includes: planning and grants, project design, permitting and oversight, environmental compliance and enforcement, project construction, and operations and maintenance. This structure would coordinate related work under a single leadership; strengthen leverage of funding, offsets, revenue, staffing, and technology investments; and give green infrastructure a clear voice within Public Works.
2. **Create distinct sections within UFD** to preserve collaboration under one Division while allowing specialized teams to focus on functions such as planting and establishment care, permitting and oversight, maintenance, and medians. This could improve accountability for delivery of activities outside of tree maintenance, and support day-to-day coordination without fragmenting the current program's leadership or resources. However, this option does not as distinctly separate each function and could therefore also result in blurred lines between sections' responsibilities and staffing.
3. **Place permitting in another Public Works Bureau**, such as BOE, while leaving maintenance within StreetLA. While this may allow alignment with other permitting functions at BOE, including capital project development, it could create knowledge silos, weaken coordination, and make it harder to maintain consistent standards. It could also require duplicative or incompatible tech systems, creating implementation and operational challenges.

The implementation of structural changes within Public Works would be a long-term endeavor that requires meticulous planning and a phased approach. By evaluating these structural options, the City could move toward a more efficient and integrated model of public right-of-way management that treats trees as vital living infrastructure.

City Hiring Processes

The City's complex bureaucracies impact its ability to quickly and effectively hire to fill vacant authorized positions and to reliably contract out work, as needed, especially when using grant funding with firm deadlines. The LA Charter Reform Commission Report, released in April 2026, identified civil service reform as an issue for the City that must be addressed in the future. The report noted that "Los Angeles cannot deliver services if it cannot hire and keep the people who provide them." These issues are broader systemic issues not specific to urban forestry or under the purview of urban forest managers, and are therefore not analyzed deeply within the UFMP. However, they regularly come up as barriers that negatively impact urban forest management within the City.

DRAFT

When positions are vacant, they are more vulnerable to deletion during the City's budget process as their removal does not directly impact a City employee. Positions are often vacant not because they are not important to fill, but because of limited capacity for hiring or slow processes in creating new eligibility lists. Leaving positions vacant can also be a means for City departments to achieve required salary savings. This is another way in which the City's budget process pits City department priorities against each other.

Two additional challenges related to hiring that are specific to urban forestry came up during development of the UFMP. The first is parity and relationships between City departments that employ job classifications from the Tree Surgeon ladder and the second is a gap between existing classifications and the necessary skillsets for natural resource management.

Parity and Use of Job Classifications Across City Departments
Currently, RAP Forestry, UFD, and LADWP all hire Tree Surgeons and related job classifications. While the positions are comparable on paper, the structure across these three departments leads to disparities in recruiting and retaining staff. As positions open across the three departments, staff movement can create vacancies that affect overall staffing levels. Each department's job classifications offer different promotional timelines, certification requirements, and overtime structures, which can influence how employees assess long-term career pathways. These structural distinctions may affect recruitment and retention patterns, and should be considered when evaluating long-term staffing needs across the departments.

Recruitment of Needed Skillsets and New Job Classifications
There is an identified gap in City job classifications related to natural resource management. OFM began the process of analyzing the types of skillsets needed through contracted work in early 2024. The resulting "Job Classification Analysis" report included interviews with staff from five different City departments, including multiple bureaus within Public Works and RAP Forestry. The report identified a gap in the City's job classifications for positions related to urban forestry and ecology. While the current job classifications include the required skills for many positions related to trees, they do not consistently provide City departments with sufficient candidates that have the appropriate expertise for activities such as reviewing tree preservation cases, conducting field level data assessment and entry, writing reports for City Boards and Commissions, and developing and advancing new policies.

DRAFT

Additionally, the report addressed the job classification utilized for the position responsible for managing the RAP Forestry Division. Currently, the job classification used is a Principal Ground Maintenance Supervisor II, which is not specifically tree-related. This makes RAP Forestry vulnerable to leadership without appropriate urban forestry technical oversight. It is also a job classification with lower compensation as compared to its counterparts in UFD and LADWP.

To that end, the City must create new, or modify existing unused, job classifications for urban foresters and urban ecologists. This will allow for recruitment and hiring of the specific skillsets needed broadly by City departments responsible for management or oversight of natural resources. The Job Classifications report included draft classifications that were further refined by OFM with input from UFD, RAP Forestry, LASAN, and City Planning.

In order to facilitate the broad recruitment of personnel with the specialized skillsets required by City departments for the management and oversight of natural resources, the City needs to establish new job classifications, or update existing ones for Urban Foresters and Urban Ecologists and address the job classifications utilized to manage the forestry divisions within different City departments.

See Appendix J for the full Job Classification Analysis report.

Contractual Services

While this UFMP strongly recommends increasing City department's capacity through more City staff positions, there are also times when contractual work is appropriate and necessary. City departments that expect to have regular contractual services needs, should pursue the creation of on-call lists for contractors that can provide tree related work. This may include technical, engagement, tree trimming, tree removal, pest management, and planting and watering work.

In order to ensure high-quality outcomes and products, it is imperative that City departments have sufficient staff to oversee and review contractual work. This is especially true for any contracts for direct tree work. Processes must be established and implemented to support City staff in ensuring City contractors are following best management practices for tree planting and trimming. This includes allocating staff time to directly review field work, creating a process for reporting and correcting sub-par work, and providing clear, documented specifications.

DRAFT

Documentation of Policies for City Urban Forestry Programs

It is a common best practice for government agencies that are responsible for direct tree asset management to establish Urban Forest Manuals that reflect the agency's practices for tree asset management. As such, the City's departments responsible for managing trees should each create, maintain, and regularly update a department specific Urban Forest Manual.

Urban Forest Manuals are important for several reasons. First, they allow for public transparency around each group's practices and approach, serving to increase public trust and confidence in the work accomplished by these groups. City residents often have questions and concerns about how the City addresses certain tree decisions. Direct conversation with City staff typically resolves advocate's concerns and reminds them that the City employs thoughtful, trained professionals for urban forest work. However, this can be time consuming. Published documentation of internal policies could reduce the frequency of these communications. Secondly, Urban Forest Manuals can provide a clear guide for training new staff and function as established reference for existing staff. Third, they allow City departments to have clear expectations for level of service for any contracted components of tree work, when deemed necessary.

Urban Forest Manuals should act as each City department's guiding framework for implementing best practices and aligning to meet desired urban forestry performance targets and outcomes from the UFMP. Once adopted, the Urban Forest Manuals should be updated from time to time, to reflect new information from research, to ensure alignment with updates to industry standards, and to incorporate best practices from data and success metrics that the City is tracking.

The existence of Urban Forest Manuals varies from City department to department. The Board of Recreation and Parks Commissioners adopted a RAP Urban Forest Manual in 2003 and approved an updated version on February 6, 2025. RAP should continue to regularly adopt updates to its manual. UFD does not have a cohesive Street Tree Manual detailing the division's processes for the urban forest work within their purview. In March 2024, OFM used contractual funds to create a preliminary draft outline and content for a Street Tree Manual, with UFD staff participating in the process. The expansion, revision, and finalization of the preliminary draft should be completed by UFD with support and collaboration from OFM. Urban Forest Manuals also do not exist for the City departments responsible for oversight of trees on City owned or managed properties. These departments should create and adopt their own respective Manuals with support and collaboration from OFM.

Chapter 3 Summary of Recommendations

Recommended Strategies or Actions to Address in Current or Future Implementation Plans	Strategic Plan Connections
Managing the Urban Forest Across the City	
Coordinate with large land managers, including other government agencies and local institutions, in the City to address urban forest opportunities and issues and assist in meeting the City's urban forest goals.	**Strategy** F-2
Conduct an inventory of all trees at City facilities or on property under the jurisdiction of GSD and establish a process to maintain and update the inventory.	**Strategy** D-3
Assess tree management around City facilities and on City-owned properties currently under GSD jurisdiction. Identify the best option for assigning management of these trees, including consideration of GSD and RAP, and update the LAMC as necessary to clearly state which City department is responsible.	**Strategy** E-1
Provide additional funding and staffing to the City departments responsible for tree management around City facilities and on City-owned properties either for direct work and/or high-quality contractual oversight.	**Strategy** G-4
Conducted an inventory of all trees managed by proprietary departments, including LADWP, LAWA, and the Los Angeles Harbor Department.	**Strategy** D-3
Ensure the City's proprietary departments, including LADWP, LAWA, and the Los Angeles Harbor Department, assign funding for comprehensive urban forest management for trees under each department's jurisdiction.	**Strategy** G-4
Partner with LAUSD to increase tree canopy in and around school campuses to support students and tree canopy equity goals. Consider how this type of canopy expansion can pair with the pursuit of joint-use agreements between RAP and LAUSD, that provide usable recreational and open space areas on school campuses to local communities.	**Strategy** F-2
Encourage Caltrans to prioritize tree preservation and to provide high quality tree maintenance and new tree planting in easements along freeways.	**Strategy** F-2
Deepen partnership with universities and colleges to support tree canopy equity goals, increase research opportunities, and engage with students.	**Strategy** D-8
Support the conservation, maintenance, and potential expansion of natural and open spaces in and around the City that are managed by other government agencies.	**Strategy** F-2
Urban Forest Governance	
Regularly assess and update sections of the Los Angeles Charter and Administrative Code and Los Angeles Municipal Code (LAMC) that impact trees to support tree preservation, clearance regulations, development requirements, and clearly establish the responsible City department for each activity or tree asset type. See Chapter 8: Tree Preservation for more on recommended updates to the Protected Tree and Shrub Ordinance (PRO).	**Strategy** E-1
Collect regular feedback from City departments on updates to City Code that would support high-quality urban forest management.	**Strategy** E-1

DRAFT

Recommended Strategies or Actions to Address in Current or Future Implementation Plans	Strategic Plan Connections
Regularly assess and update sections of the Los Angeles Municipal Code (LAMC) for fee and fine schedules for tree related activities, permits, and violations to provide revenues for oversight and support of urban forest activities and requirements. See Chapter 6: Tree Planting and Establishment Care and Chapter 10: Funding the Urban Forest for more on funding and specific recommendations.	**Strategy** G-2
Make updates to the Los Angeles Municipal Code (LAMC) to create alignment for tree related sections of the Original Zoning Code (Chapter 1) and the New Zoning Code (Chapter 1A).	**Strategy** E-1
Include alignment with UFMP recommendations within General Plan Elements updates. (See also Chapter 4: Equity and Canopy Expansion)	**Strategy** E-1
Continue interdepartmental collaboration when developing and implementing City assessments and plans to support alignment between the UFMP and other efforts. This includes Mayor initiatives, especially those related to climate and infrastructure, and documents from City departments, such as the Biodiversity Index, Climate Vulnerability Assessment (CVA), Climate Action and Adaptation Plan (CAAP), and Heat Action and Resilience Plan (HARP).	**Strategy** F-1
Previous Urban Forest Assessments and Reports	
Continue to enhance unified coordination efforts across City departments for urban forest management in alignment with previous recommendations related to urban forest coordination, planning, and management included in urban forest assessments and reports.	**Strategy** F-1
Continue efforts to increase planning and leadership positions within City departments managing tree assets as recommended previously in urban forest assessments and reports.	**Strategy** F-1
Provide support to City departments, bureaus, and divisions related to urban forestry policy, programs, data, and research, including reporting regularly on relevant research for the Los Angeles regions' urban forest and management.	**Strategy** F-1
Address recommendations from previous urban forest assessments and reports to increase capacity and resources for tree programs, particularly for tree planting and pruning cycles to meet industry standards. See Chapter 6: Tree Planting and Establishment Care, Chapter 7: Tree Maintenance, and Chapter 10: Funding the Urban Forest for specific recommendations.	See Chapters 7, 8, and 10 Summary of Recommendations for specific actions and strategy connections.
Address recommendations from previous urban forest assessments and reports to create and maintain tree asset inventory datasets with a plan for regular updates. See Chapter 5: Tree Canopy Cover and Inventory Analysis for more details and recommendations.	See Chapter 5 Summary of Recommendations for specific actions and strategy connections.

DRAFT

Recommended Strategies or Actions to Address in Current or Future Implementation Plans	Strategic Plan Connections
Address recommendations from previous urban forest assessments and reports related to funding and implementing urban forest public outreach and engagement campaigns. See Chapter 9: Community Engagement and Public Education for more details and recommendations.	See Chapter 9 Summary of Recommendations for specific actions and strategy connections.
City Structure and Staffing	
Assess the best method for developing a budget process that considers the long-term nature and impacts of urban forestry work. This should include consideration of efficiencies and cost-savings gained through proactive, inspection-based tree maintenance programs and contract processes needed to address multi-year urban forestry costs, such as contract-grow contracts. (See also Chapter 6: Tree Planting and Establishment Care and Chapter 7: Tree Maintenance)	**Strategy** G-5
Assess and implement structural changes that elevate RAP Forestry within the City's budget process.	**Strategy** G-5
Consider structural changes to UFD to ensure sufficient resources are directed to tree planting and permitting oversight alongside other tree related management responsibilities.	**Strategy** G-5
Assess and modernize the City's hiring process to reliably fill vacant positions with high-quality candidates.	**Strategy** E-12
Assess and update the City process to contract out work that cannot be conducted in house, that has a limited timeframe and therefore cannot sustain permanent City position(s) (such as one-time grant funding), or that extends beyond typical contract timeframes (such as the five-year establishment care period).	**Strategy** E-12
Pursue creation of contractual on-call lists for tree related work, including technical, engagement, trimming, removal, pest management, and planting/watering work.	**Strategy** E-5
Establish and implement a process to ensure City contractors follow best management practices for tree trimming, including sufficient staff oversight and clear pruning specifications for contracted work.	**Strategy** E-5
Request the Personnel Department to start the process to create civil service job classifications for urban forester and urban ecologist to allow City departments another avenue for hiring the appropriate technical expertise for overseeing living infrastructure management. (See also Chapter 8: Tree Preservation)	**Strategy** E-3
Create and regularly update Urban Forest Manuals for all City departments with groups responsible for direct tree asset management.	**Strategy** E-6

DRAFT

Chapter 4: Equity and Canopy Expansion

A primary area of focus for this UFMP is confronting the systemic issue of inequitable tree canopy distribution. Disparities in canopy cover across Los Angeles are pronounced, leaving many neighborhoods with minimal shade, limited parks, and restricted access to nature. Research shows that shade reduces the outdoor "feels-like" temperature by 30° to 70° F.[7] Communities that have low tree canopy are also generally impacted by other environmental and socioeconomic inequities. They are communities with more freeways, industrial pollution sources, and impervious surfaces and they are home to higher proportions of people of color and people with financial limitations. Many factors over decades caused this complex problem. While this is neither unique to the region nor a newly documented concern, it is an important consideration for all urban forestry programs, policies, and investments.

See Chapter 5: Tree Canopy Cover and Inventory Analysis for detailed tree canopy distribution analysis and maps.

The uneven distribution of tree canopy across Los Angeles is the result of both ecological conditions and historic urban development patterns. Prior to settler colonization and widespread urbanization, the region that is now Los Angeles was largely coastal sage scrub, chaparral, and semi-arid grassland. Native tree growth occurred primarily in areas with reliable water access, such as along the Los Angeles River and its tributaries, and in foothill and canyon environments within the Santa Monica Mountains and other hillside areas. Much of the Los Angeles Basin did not historically support dense tree canopy.

As the City expanded, waterways and native habitats were disturbed and built over, both reducing available canopy and creating a greater need for it. The addition of paved surfaces and buildings that form the City cause the urban heat island effect, which increases temperatures. Tree canopies can mitigate this effect by shading those surfaces and cooling neighborhoods through transpiration and other byproducts of their natural growth.

Land use decisions exacerbated the unequal distribution of tree canopy. Significant expansion of the urban forest began in the early 20th century following the completion of the Los Angeles Aqueduct, which enabled large-scale irrigation and ornamental planting.

[7] Turner VK et al (2023). "Shade is an essential solution for hotter cities." Nature.

Street tree programs and landscape design became central features of new residential developments, particularly in higher-income communities where wider parkways, private irrigation, and sustained maintenance supported long-term canopy growth. In contrast, many working-class and industrial neighborhoods were developed with limited living, green infrastructure and fewer planting requirements.

These past land use decisions result in continued spatial segregation, economic disparity, and environmental burdens today. The real estate industry practices of **redlining** and race restrictive covenants paired with City practices of widespread single-family zoning continue to impact communities today. These previous actions contributed to disparities in park access, street tree planting, and long-term maintenance. Over time, these differences in investment have resulted in measurable variations in heat exposure and environmental quality and injustices. In cities throughout the United States, including Los Angeles, formerly redlined neighborhoods tend to have lower canopy cover.[8] Understanding these historical ecological and socio-economic factors and current conditions is essential to guiding equitable urban forest management, prioritizing canopy expansion and tree resilience as essential heat prevention and protection in under-resourced neighborhoods.

Redlining

In the 1930s the federal Home Owners' Loan Corporation conducted race-based risk mapping that assigned neighborhoods letter grades of A, B, C or D, with D demarcated with red. These maps were used to systematically deny financial services, such as mortgages, loans and more, to residents in the redlined "undesirable" areas.

Furthermore, the legacy of urban and infrastructure design and development also profoundly impacted the presence of nature and the health of the local ecosystem. This is important to consider as the City looks forward, as the health of the ecosystem as a whole impacts the resilience and well-being of all Angelenos but is not the specific focus of the UFMP.

Increasing tree canopy equitably across the City is an important tool in making our urban communities safe and livable. Shifting Los Angeles' landscape to one that protects and provides for all communities - ensuring adequate access to nature and critical ecosystem services - will be the work of multiple generations. Urban forestry decisions related to tree preservation, maintenance resource allocations, improvements to planting site size and

[8] David J. Nowak, Alexis Ellis, Eric J. Greenfield, "The disparity in tree cover and ecosystem service values among redlining classes in the United States", Landscape and Urban Planning, Volume 221, ISSN 0169-2046 (2022), https://doi.org/10.1016/j.landurbplan.

condition to allow for tree specimens that meet goals for shading and cooling, tree planting programs, and community engagement and education must be based on metrics and criteria that guide the City toward a healthy and equitably distributed urban forest.

Recommendations related to distributional equity are also included in Chapter 5: Tree Canopy Cover and Inventory Analysis and recommendations related to recognitional and procedural equity are also included in Chapter 9: Community Engagement and Public Education.

When discussing tree equity, it is important to consider the **three types of equity**. In addition to distributional equity, which is discussed above and focuses on the location and presence of trees and canopy cover, it is important to also include recognitional and procedural equity when discussing urban forest equity. These two forms of equity speak to the processes that lead to the thoughtful and substantive inclusion and recognition of previously or currently marginalized communities in design and delivery of the urban forest.

Three Types of Equity

- **Distributional equity:** the distribution of trees and access to tree benefits targeted to marginalized or disinvested communities.
- **Recognitional equity:** institutionalize accountability and ensure future decisions are made with recognition of past harms and historical context in urban forest planning that disproportionately provided more benefits to certain groups.
- **Procedural equity:** access to information and decision-making processes for underserved communities, transparency, and impartiality in decision-making and the provision of services.

Multiple groups and consortiums have conducted significant work and research to understand and address the complex problem of urban forest equity. This chapter includes a brief overview of the activities and research to date and shares recommendations on next steps for the City.

4.1 History of Equity-focused Research in Los Angeles

The City has been aware of and working to address inequitable tree canopy distribution, and the subsequent gap in urban forest essential ecosystem services and life-supporting benefits for vulnerable communities. Efforts to prioritize greening these areas have been initiated by multiple Los Angeles mayoral administrations as well as by grant funded projects from the Department of Public Works (Public Works) Bureau of Sanitation and Environment (LASAN) and the City's nonprofit partners. The Office of Forest Management

(OFM) has focused heavily on understanding the nature, barriers, and opportunities for redressing this inequity since its inception in 2019. This focus has included not only distributional equity, but also consideration of procedural and recognitional equity.

The City has undergone a series of exercises to review the status of our urban forest and the impacts that prior policies had on canopy distribution, and therefore the benefits and services received by the surrounding communities. The goals and recommendations in this UFMP build off of previous **equity research publications** including the work of Dr. Greg McPherson, Dr. Vivek Shandas and the Urban Forest Equity Collective (UFEC), and the University of Southern California's (USC) Urban Trees Initiative. Further understanding of the historic context and current constraints to achieving equity can be gained by reviewing these publications.

Equity Research Publications

- Dr. Greg McPherson Los Angeles 1-Million tree canopy cover assessment
- Urban Forest Equity Visiting Scholar Dr. Vivek Shandas, later referred to as Urban Forest Equity Collective Phase I (2021)
  - Los Angeles Urban Forest Equity Assessment Report
  - Los Angeles Urban Forest Equity Streets Guidebook
- Urban Forest Equity Collective Phase II (2024)
  - Los Angeles Urban Forest Equity: Assessment, Tools, and Recommendations
  - Los Angeles Urban Forest Equity: Design Guidebook
- USC Urban Trees Initiative

Million Trees LA (MTLA) and Urban Forest Researcher Dr. Greg McPherson

The Million trees Los Angeles canopy cover and benefit assessment was conducted by the United States Forest Service's Pacific Southwest Research Station under Dr. Greg McPherson with funding from the City. The study revealed empirically the wide disparities in tree canopy cover across the City. While there was anecdotal evidence of the disparity, this was the first time that difference was quantified in a way that was easy for residents, non-profit organizations, and City decision-makers to visualize.

The City's Million Trees LA (MTLA) campaign also resulted in the City contracting Community Partners to establish a project, known today as City Plants. This team not only focused on equity implementation during the MTLA campaign, but subsequently worked with the Los Angeles Department of Water and Power (LADWP) to further refine how the existing planting program budget could more effectively address tree canopy equity. This included development of the Tree Ambassador / Promotora Forestal paid

training program (see more in Chapter 9), targeted funding for equity research and outreach, and development of the Pilot Private Property Planting Program, a pilot to provide technical support for private property tree placement and planting in low-canopied communities (see more in Chapter 6). City Plants also led and convened stakeholders for significant research, program development, and pilot projects focused on the issue of tree canopy equity.

CalEnviroScreen and Cap and Trade Funding

In 2012, California Air Resources Board introduced the cap-and-trade program. The program, developed in response to AB 32 (2006), included the creation of the Greenhouse Gas Reduction Fund (GGRF) that utilized revenue generated from the program to support investments in greenhouse gas reducing projects. SB 535 (2012) provided further instructions requiring minimum funding levels for "disadvantaged communities" (DACs) and AB 1550 (2016) added definitions and requirements for low-income communities (LICs). CalEnviroScreen was launched in 2013, which was considered "a groundbreaking environmental justice mapping tool that identifies areas most affected by multiple forms of pollution" across the state. This tool was used to identify DACs and LICs for compliance with SB 535 and AB 1550 when providing funding from the GGRF.

LA's Green New Deal (GND)

LA's Green New Deal (GND), released under Mayor Garcetti, was the first time the City set an urban forestry target focused on equitable canopy expansion. The GND called for increasing tree canopy in areas of greatest need by at least 50% by 2028 as well as a more modest goal of planting 90,000 new trees by 2021. The 90,000 tree planting goal was on track prior to the onset of the COVID-19 pandemic, with the goal ultimately reached in early 2024. These goals in the GND, followed by the City hiring the first City Forest Officer in August 2019, drew attention to the issue of tree canopy equity and activated new research partnerships. The City Forest Officer partnered with the Urban Forest Equity Collective (UFEC) to begin defining areas of greatest need and with USC's Urban Trees Initiative to identify methods to increase canopy in these areas.

Urban Forest Equity Collective (UFEC)

The Urban Forest Equity Collective (UFEC) was led by the City's nonprofit partner City Plants. The research included two phases, with many research findings as well as the creation of infographics, resources, and tools.

DRAFT

In 2020, City Plants hosted Vivek Shandas as the Visiting Scholar on Tree Equity to work in collaboration with OFM. This project created the Los Angeles Urban Forest Equity Assessment and the Los Angeles Urban Forest Equity Guidebook that provided illustrated examples of the types of conditions in the public right-of-way that pose conflicts for greening efforts, making the urban forester's perspective more accessible to the public and other disciplines.

One of the key contributions of this project was the development of the **three tiers of tree planting sites**, a methodology and language to describe planting locations in terms of feasibility and ability to reach desired canopy targets. As previous efforts had focused on a number of trees as a focal point, this continued to move the conversation towards the level of service desired from urban trees in the City.

Three Tiers of Tree Planting Site

- **Tier 1 – Available** No site modification is needed. Tree canopy goals can be achieved by planting existing vacant locations.
- **Tier 2 – Moderate** Minimal site modifications needed. Tree canopy goals can be achieved with additional financial resources and possible site modifications within current City and County Standards.
- **Tier 3 – Hard** Drastic site modifications needed. Significant tree canopy increase cannot be achieved with existing infrastructure and policy modifications are needed to reach canopy equity and public health targets.

Phase II formalized the collaboration and creation of an expanded participant group, including the USC Urban Trees Initiative. UFEC Phase II developed various work products and analysis, including:

- A prioritization tool to identify neighborhoods impacted by physical and environmental factors that could be addressed through tree planting
- Analysis of the number of new trees needed to reach the GND canopy targets and preliminary geospatial analysis of all open space, both on private property and in the public right-of-way, to assess the feasibility of finding planting locations for those trees.
- Potential success metrics for urban forest equity
- A tree preservation framework
- A guidebook of additional interventions for creating space for trees in the public right-of-way

DRAFT

The final piece of UFEC Phase II also conducted community engagement through workshops held in two identified pilot communities, Sylmar and Central Alameda, and developed draft neighborhood strategy documents for those communities.

This phase of UFEC further articulated the importance of preservation and maintenance of existing trees in expanding canopy cover. The research identified this for two reasons. First, a lack of available space to plant high-shade potential, large-stature tree species in many neighborhoods. Second, based on feedback from community groups noting public hesitance to receive new trees when existing street trees are not receiving sufficient care.

The **UFEC Phase II report recommendations** included the following:

- Foster diverse partnerships and build upon existing and emerging resources and knowledge
- Account for multiple facets of equity, not just distributional
- Be transparent and systematic in urban forestry related decision-making
- Lead with evidence - including evidence embedded in community perspectives and experiences - when designing planting projects, and track impacts and outcomes
- Actively engage community members in goal setting, data collection, project planning, and project design
- Plan for shade trees at the beginning stages of public works, capital improvement, and active transportation projects, especially in neighborhoods where available space for public trees does not currently exist
- Apply urban forest equity concepts to local policy and plan development
- Develop programs to incentivize and support tree planting on private property
- Integrate preservation in urban forestry work
- Acknowledge the persistence of insufficient resources and proceed with available resources

USC Urban Trees Initiative

In 2020 the USC Public Exchange Program developed the USC Urban Trees Initiative, with the intent to aid the City in achieving the GND's tree canopy equity target. For this work USC compiled a comprehensive team that included research assistance from the Spatial Sciences, Earth Sciences, and Landscape Architecture departments, as well as support from USC University Relations.

DRAFT

The project completed three phases of research, aiding the City in:

- Identifying where tree planting should be prioritized within high need neighborhoods
- Developing a profile of the air quality contributions of many commonly used tree species in the region
- Providing renderings and recommendations of interventions that could be used to meet tree canopy goals within several different specific communities
- Developing published research and policy briefs on a variety of subjects related to trees in Los Angeles

The project also conducted community outreach to share research findings and gain feedback from the community when determining priority planting areas, and also managed funding for specific projects to do early intervention tree planting and establishment care in those communities.

4.2 Next Steps for the City

To meet the UFMP's goals, the City must continue to strategically identify areas most in need of trees. This involves an equity assessment to determine high-priority areas and specific locations, considering both City and community member needs. It also necessitates evaluating the desired use of public right-of-way spaces, establishing processes to change usage to support canopy expansion, and supporting processes to identify and create new park or open spaces.

Advancing urban forest equity within the City requires a coordinated strategy across many City departments and disciplines. UFEC and USC's research shows that simply planting more trees in existing, available planting locations is unlikely to achieve tree canopy targets. Emphasis must also be put on activities related to maintenance, preservation, and community engagement. An equity-centered approach also emphasizes the quality of the canopy expansion over mere quantity, understanding that the true measure of success lies in the survival, health, and eventual maturation of trees. The City must embed equity in City policy, strategically create space for new trees with high canopy potential, prioritize areas of focus for canopy expansion activities, and include community voices in the process.

Identifying priorities and implementing changes, particularly for tree related decisions, requires continuous and inclusive dialogue with those who live, work, and play in impacted areas. These conversations must take place in spaces where community members feel comfortable, safe, and supported to share their ideas and concerns.

Crucially, dialogue must be followed by tangible action, as many communities have grown fatigued by providing feedback without seeing resulting change.

The recommendations in this section build off of the findings of previous research to form a comprehensive approach to building a healthier, more equitable, and climate-resilient urban forest across Los Angeles.

Embed Equity in City Policy

Equity must be formally embedded within the City's governance and regulatory systems. This includes integrating urban forest equity goals across major planning efforts and policy documents, such as the General Plan (especially Community Plans and Open Space and Conservation Elements), climate and environmental justice initiatives, capital improvement programming, and park or open space acquisition and planning. Trees should be recognized and funded as essential living infrastructure that deliver measurable public health, climate adaptation, and economic benefits.

Additionally, urban forest and equity considerations must be integrated into infrastructure and land use regulations. Street design standards, utility coordination protocols, capital planning in the public right-of-way or in parks, and development review processes should proactively accommodate trees, including ensuring adequate planting space. Integrating trees early in projects prevents missed opportunities and reduces long-term costs. This aligns with the UFEC recommendation to "Plan for shade trees at the beginning stages of public works, capital improvement, and active transportation projects, especially in neighborhoods where available space for public trees does not currently exist."

See Chapter 3: History and Governance of Trees in Los Angeles for further discussion of City structure, Chapter 10: Funding the Urban Forest further discussion of funding challenges and opportunities for the urban forest, and the following sections of this chapter and Chapter 6: Tree Planting and Establishment Care for further discussion on integration of urban forestry with infrastructure and land use regulations.

Make Space for Trees in the Urban Environment

Existing public right-of-way conditions limit sites that are spacious enough to accommodate large stature tree species, and therefore high levels of canopy and shade. Additionally, some communities have access to adequate City parks and open space, while others have limited access to this resource. Parks and open spaces can often provide greater space for large, high-canopy trees than public right-of-way locations.

Providing shade within the public right-of-way and increasing park access are critical components to pair alongside other City goals. Active and multimodal transportation, that

achieve carbon and other livability targets, are enhanced by shaded public rights-of-way that provide cool, comfortable, and safe conditions for people walking, biking, and riding transit. While expanding housing stock availability is important, increased density also may limit tree canopy on private property and increase reliance on tree canopy in City parks and other public spaces. In neighborhoods with limited park access, the public right-of-way (including parkways and medians) are sometimes used by residents to fill this gap - providing access to nature, cooling and shading, and acting as gathering spaces.

Creating more space for trees is a complicated equation in crowded public areas where other infrastructure must also exist. It requires the City to evaluate options and explore various implementation pathways. Consideration must be given to questions such as:

- How can space be made to allow a large stature tree species to provide significant shade on a neighborhood street with high pedestrian traffic if the parkway is only four feet wide?
- With most existing canopy on private property, how can canopy be retained or expanded in neighborhoods that are upzoning from single family homes to greater density? How can this be accomplished in alignment with efforts to streamline development processes? How can this be done in coordination with expanded needs for utility service at upzoned locations that contain greater numbers of units and a subsequent increased burden on the utility grid?
- What criteria can be given to engineers and designers to support capital improvement projects along streets and in parks with the best canopy outcomes? What hierarchy of use within various public right-of-way contexts and street types will support canopy where it is needed most? How is that communicated across the users and managers of the public right-of-way?
- How can the City acquire, and more importantly, maintain additional park space in strategic locations in high need communities? How can this be done in a way that balances recreation needs, high-quality tree canopy, and managing the City's risk and liability?

Set Canopy Targets for Capital Improvement Projects

Setting tree canopy cover targets for various land use and capital project types will provide a flexible guide for those designing and reviewing these projects to ensure they support installation of high-quality canopy. This requires cross-departmental coordination efforts. OFM should collaborate with other City departments to set these targets, including consideration of City park capital projects, different types of transportation projects, other public right-of-way capital projects, and sidewalk canopy cover needs along different street classifications.

DRAFT

Creating canopy targets to be utilized by projects as they are designed and implemented ensures that City funds spent on improvements include support for good urban forest design. It also focuses the goal on total canopy, rather than number of trees, while still allowing flexibility in design to both support canopy expansion and meet the needs of each project. This approach also aims to make more efficient use of public funds, as many of the designs needed for large stature shade trees may require moving other public infrastructure and so should be paired with projects that are already including these types of expensive changes.

This recommendation aims to embed canopy expansion planning into ongoing capital planning. Then, over time, as projects continue to be implemented, tree canopy expansion will also continue to occur. While sites where canopy expansion is infeasible due to constraints will remain, the City should aim to have its projects contribute to tree canopy goals. At the same time, a strategy for more rapid-scale change across the City could also be explored rather than waiting for large scale capital projects. However, this would require significant and sustained increases in specific funding for urban forest design and installation.

Develop Implementation Pathways for Street Trees

The research led by UFEC and USC gave the City information about several pilot neighborhoods and included recommendations for achieving canopy gains within different public right-of-way conditions. The City now needs to translate these recommendations into implementation pathways with criteria for use, standard plans, and permitting mechanisms. These pathways can then be used for both City-led projects and external entities to plan, fund, permit, and install street tree interventions. The following resources include a variety of design considerations that should be included in the City's assessment.

- UFEC Phase 1 Guidebook
- UFEC Phase 2 Design Guidebook
- USC Urban Trees Initiative Phase 1 Maximizing the benefits of increased urban canopy on the eastside of Los Angeles report
- USC Urban Trees Initiative Phase 2 Design Scenarios for University Park and Boyle Heights

Many of the recommendations could result in different urban design, not to mention large capital projects, within communities, and so should be paired with clear opportunities for community engagement on the design and priorities for their neighborhoods. The City does not currently have capacity for the needed level of community engagement to make

decisions at the neighborhood level within low-canopied communities. Specific funding would need to be identified for this purpose in order to support robust engagement.

Plan for Canopy Expansion and Prioritize Areas of Focus

Effective equity-centered planning requires robust, data-driven analysis. The City should continue to utilize integrated mapping tools that combine tree canopy cover, extreme heat exposure, air pollution burden, public health indicators, pedestrian and other transit ridership levels, and socioeconomic vulnerability metrics to identify priority investment areas. These tools enable the City to direct resources for canopy expansion activities so that they will generate the greatest cumulative benefit.

While not the only important activity, tree planting is a crucial component of canopy expansion efforts. Utilizing the UFEC's three-tiered site classification framework can further guide efficient tree planting implementation. Sites can be categorized by planting feasibility, distinguishing between locations where planting can occur immediately, those requiring minor site modifications, and those requiring more significant policy or infrastructure changes. This structured approach supports strategic planting investment now while also acknowledging the diverse physical conditions across the City and the additional resources needed to plant trees in many locations.

Cross-departmental collaboration is essential to successful canopy expansion. Urban forestry objectives must be embedded across City departments, including Los Angeles City Planning (City Planning), Public Works, the Department of Recreation and Park (RAP), the Los Angeles Department of Transportation (LADOT), and LADWP. Urban forestry data analysis and planning efforts must consider similar efforts on related topics, such as LASAN's Nature Based Solutions Equity Index (NBSEI). Institutionalizing interdepartmental collaboration will help diminish negative impacts from silos, reduce conflicts, and align investments toward shared equity goals.

DRAFT

Tree Canopy Equity Priority Index

OFM developed the Tree Canopy Equity Priority Index (Canopy Priority Index) to provide a tool to evaluate level of need, building on the UFEC Phase II work. This tool is meant for use in policy development and to provide guidance on focus areas for canopy expansion. It assigns a priority rating (low, medium, high, or very high) to census tracts based on a comprehensive assessment of the following three areas:

- **Physical need** includes consideration of existing tree canopy cover, impervious surfaces, and shade
- **Environmental exposure** includes consideration of projected extreme heat days, extreme heat-related emergency room visits, and air pollution exposure
- **Socio-demographic conditions** includes consideration of factors like a history of redlining, population density, education levels, rates of poverty, populations of color, non-English speaking households, and homeownership, and lack of internet access

See Appendix K for more on the Canopy Priority Index methodology and map.

This detailed Canopy Priority Index serves as a crucial resource for directing equitable canopy expansion activities and informing policy. While this data can and should be used to identify priority areas for planting resource focus, it also should be used to pinpoint priority areas where additional tree considerations or requirements should be included in policies impacting development projects or other work. OFM plans to review and refine the Canopy Priority Index and its indicators annually as new datasets become available.

The Canopy Priority Index has already been instrumental in City Planning's update to the Landscape and Site Design Ordinance (LSDO) and in planning for shade in preparation for the 2028 Olympic and Paralympic Games. Other City departments should consider utilizing this data for workstreams impacting the urban forest.

StreetsLA Tree Planting Prioritization Opportunities

StreetsLA's Tree Planting Prioritization Opportunities Map was initially created to leverage the street tree inventory, targeting Tier 1 sites that do not require concrete cuts or other capital work, to support UFD and its partners to efficiently conduct tree planting in high-need areas. Built on the City Administrative Officer (CAO) Measure of Access, Disparity, and Equity (MADE) Tool, the map incorporates tree-specific criteria, such as site size, overhead utility limits, and UCLA shade data, and updates dynamically. StreetsLA subsequently proposed to use the map to guide Guarantee Tree Fee allocations, in fulfillment of Ordinance No. 185573 (see Appendix C for details on the fee and ordinance), replacing static mapping with a live prioritization framework.

Ensure Community Voices Are Included in Canopy Expansion Planning

Sustaining an equitable urban forest requires a strong commitment from the City to high-quality management, as well as long-term community stewardship. The City's commitment must extend beyond simple outreach to fostering meaningful community partnerships, where residents are involved early in the planning process for tree planting projects. Community engagement and public support must also be paired with adequate funding and staffing resources for direct urban forest programs, oversight, and permitting processes for all tree related activities. A healthy and equitably distributed urban forest cannot be achieved without buy-in on both sides.

The existing Canopy Priority Index provides valuable high-level, equity-focused prioritization, but the next critical step is granular, neighborhood-level planning. This approach involves understanding specific community desires to prioritize canopy expansion at the block or street level, building on USC's research. It addresses procedural and recognitional equity by incorporating community feedback into iterative design processes, ensuring solutions are tailored to each neighborhood's unique characteristics, constraints, and priorities. This includes consideration of different neighborhoods' history and sense of place and community members' specific attitudes toward trees, desired benefits like shade or habitat, and concerns about infrastructure conflicts or deferred maintenance.

Integrated planning combines data analysis on shading needs with early community input to form the foundation for neighborhood focused canopy expansion planning. Efforts must strategically balance activities such as proper mature tree maintenance and preservation, which offer immediate and significant canopy benefits, with new planting initiatives. The approach must also consider land use types and community-specific focuses, whether emphasizing park space expansion, public right-of-way investments, or private property tree retention programs. This neighborhood-level planning allows for optimizing canopy expansion by evaluating which management activities will maximize desired outcomes while considering the unique opportunities and challenges of Los Angeles' diverse communities. OFM is uniquely positioned to spearhead this citywide planning process. The first step will be developing a comprehensive framework, giving consideration to what existing planning processes, such as Community Planning, may dovetail with this work and what additional resources are required for successful implementation.

DRAFT

Chapter 4 Summary of Recommendations

Recommended Strategies or Actions to Address in Current or Future Implementation Plans	Strategic Plan Connections
Embed Equity in City Policy	
Integrate urban forest equity programs and metrics into long-range planning efforts within the City, such as climate and environmental justice initiatives, capital improvement programming, and park or open space acquisition and planning.	**Strategy** A–2
Include alignment with UFMP recommendations within General Plan Elements updates. (See also Chapter 3: History and Governance of Trees in Los Angeles)	**Strategy** E–1
Integrate urban forest equity considerations into planning for infrastructure and land use regulations to ensure trees are proactively accommodated, including planning for adequate planting and grow space.	**Strategy** A–3
Make Space for Trees in the Urban Environment	
Establish and utilize minimum canopy cover targets for different capital improvement project types that provide a flexible guide for project designers to include increased canopy in projects where appropriate.	**Strategy** A-4
Establish and utilize minimum canopy cover targets for the public right-of-way based on categories such as street typology. This should include specific consideration for sidewalks, transit stops, other areas with high pedestrian use, and sites where constraints limit canopy expansions. (See also Chapter 6: Tree Planting and Establishment Care)	**Strategy** A-4
Develop implementation pathways for alternative design considerations that allow for large space for trees in the public right-of-way, including criteria for use, standard plans, and permitting mechanisms. (See also Chapter 6: Tree Planting and Establishment Care)	**Strategy** A-3
Plan for Canopy Expansion and Prioritize Areas of Focus	
Embed and utilize the Tree Canopy Equity Priority Index in prioritization and policy efforts to guide canopy expansion activities or policies impacting the urban forest.	**Strategy** A-2
Continue to update and iterate upon the Tree Canopy Equity Priority Index as new datasets become available and in collaboration with other City departments to ensure alignment with use needs.	**Strategy** A-2
Include Community Voices in Canopy Expansion Planning	
Develop a comprehensive framework for neighborhood level canopy cover expansion planning that supports consideration of activities in all four pillars of urban forest management and each neighborhood's specific capacity and opportunity for canopy on private property, in parks, and in public right-of-way spaces.	**Strategy** A-1
Assess existing City Planning processes that dovetail with neighborhood level canopy cover expansion planning that will support efficiencies and integrate canopy planning with other land use planning.	**Strategy** A-1
Assess what additional resources will be required for successful implementation of neighborhood level canopy cover expansion planning.	**Strategy** A-1
Conduct research and pursue processes to establish reliable funding sources for public education related to urban forestry. (See also Chapter 9: Community Engagement and Public Education)	**Strategy** G-4

Recommended Strategies or Actions to Address in Current or Future Implementation Plans	Strategic Plan Connections
Conduct robust community engagement at the neighborhood level as part of canopy expansion planning implementation and utilize an iterative design process to center urban forest activities on the priorities and needs of the community.	**Strategy** A-1

DRAFT

Chapter 5: Tree Canopy Cover and Inventory Analysis

The Office of Forest Management (OFM) conducted analysis of **tree canopy** and City-managed tree inventories to establish the current baseline for the City, which is necessary for successful urban forest planning. **Tree canopy cover** assesses the distribution of trees throughout the urban forest and inventory analysis provides insights into the stability of the City-managed portion of the urban forest. These datasets allow the City to develop metrics, record canopy expansion or decline over time, and identify service delivery improvements needed to achieve urban forestry goals. Regular assessments of this kind are essential for urban forest planning and management.

Tree Canopy
A tree's canopy is made up of its branches, stems, and leaves.

Tree Canopy Cover
The term tree canopy cover (or canopy cover) refers to the area of ground that is covered by the canopy of one or more trees when viewed from above.

5.1 Tree Canopy Cover

CITY OF LOS ANGELES TREE CANOPY COVER TARGETS

Citywide: 25% by 2035
Neighborhood: 15% minimum

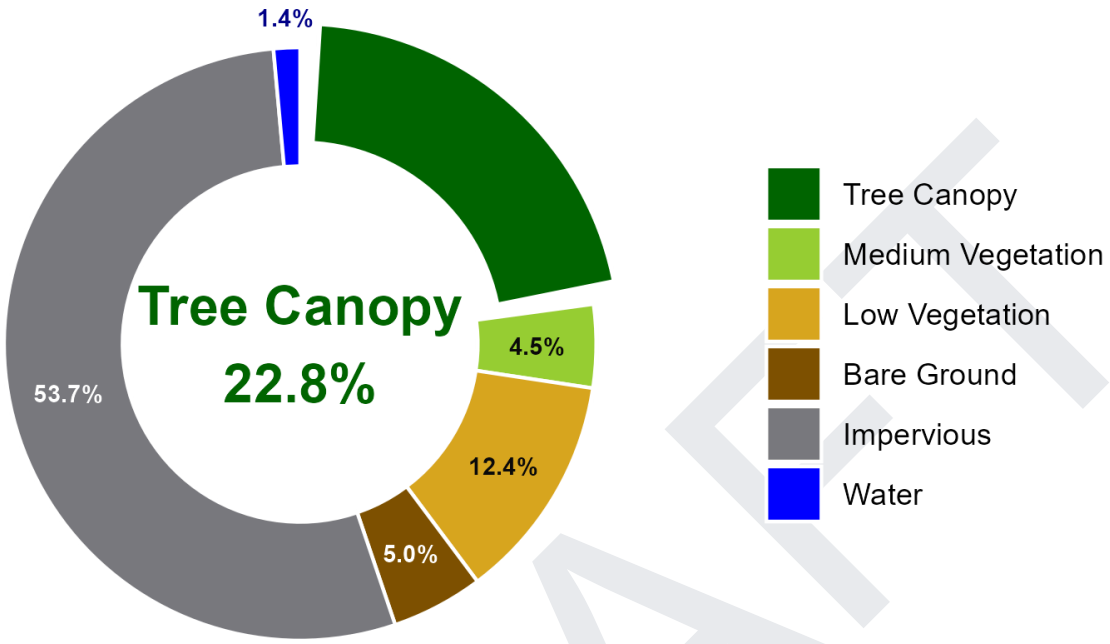
2020 Land Cover Analysis

When thinking about distributional equity and canopy expansion potential within an urban area, it is helpful to assess the full land cover, including categories such as tree canopy, low and medium vegetation, bare earth, impervious surfaces (including pavement and buildings), and water.

The Los Angeles County Chief Sustainability Office (CSO) provided the City with a full land cover assessment, created as part of their Community Forest Management Plan process. This data is used to set a baseline for the UFMP. The data product used Los Angeles

DRAFT

Region Imagery Acquisition Consortium (LARIAC) imagery captured in 2020. This data shows that land cover within the City boundary is as follows: slightly more than half is impervious surfaces or buildings, about 40% is vegetation, 5% is bare earth, and about 1.5% is water.



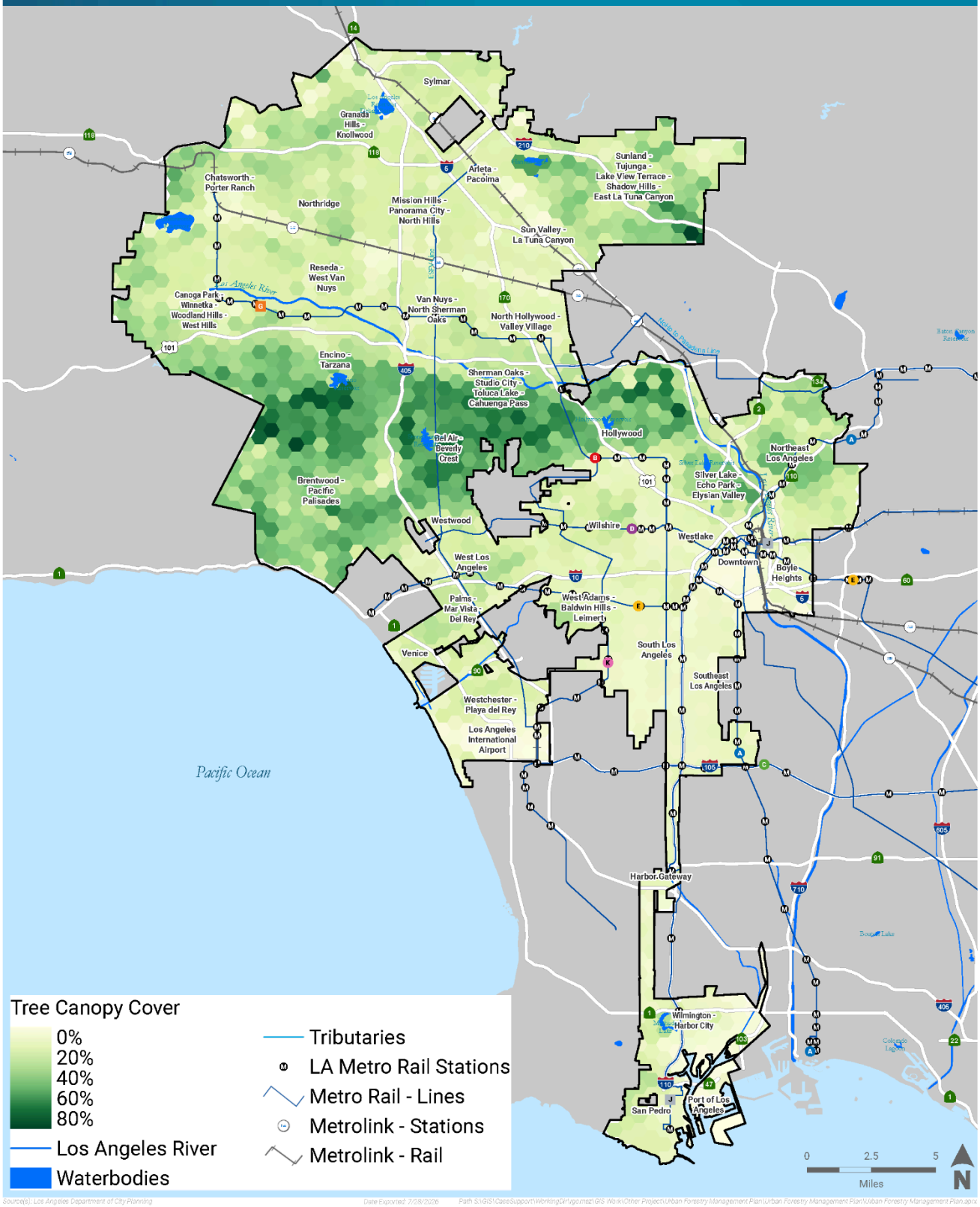
2020 Tree Canopy Cover

Past efforts to increase the City's urban forest focused on a specific tree planting goal. While the number of trees planted is an important metric to track, focus on tree planting as the main goal for canopy expansion does not include the full picture of all activities that impact urban forest gains or losses. It does not consider canopy lost due to tree removals, which frequently eclipse planting numbers in a given timeframe. A tree planting goal alone also may encourage projects to focus on planting a large number of small stature tree species, even when the project could provide more total canopy cover by planting fewer, larger stature species. Activities on private property are also not always reflected in the City's tree planting goals. Because of these gaps, the UFMP recommends setting tree canopy cover goals for the City rather than tree planting goals.

In order to be able to continue to track the City's canopy cover goals, it is important that the City ensures regular access to updated canopy cover or full land cover analysis, ideally every five years to align with Implementation Plan updates. The data utilized as a baseline within the UFMP comes from the full land cover classification provided by the CSO. As both jurisdictions plan to track canopy cover change in the region, continued collaboration between the City and County is recommended for this purpose.

Citywide Tree Canopy Cover (2020)

Urban Forest Management Plan



Source(s): Los Angeles Department of City Planning Date Exported: 7/28/2026 Path: S:\GIS\CaseSupport\WorkingDir\gp.mezt\GIS Work\Other Project\Urban Forestry Management Plan\Urban Forestry Management Plan\Urban Forestry Management Plan.aprx

While tracking canopy cover over time is necessary for the tree canopy goal, it is also important and useful to continue or start tracking other urban forest activities consistently. Canopy cover data provides a comprehensive look at canopy changes across all land use types, including those in areas not captured by City activities. However, canopy data is generally available a few years delayed from image capture date. In the interim, tracking urban forest activities provides useful feedback. This tracking should be split by tree type (such as street, park, private property protected, etc.) and should include metrics such as total annual trees planted, removed, and trimmed. Tracking should also include information on major events, such as storms or fires, that cause widespread tree losses. Because canopy cover data will be updated on a 5-year timeframe or longer, comprehensive tracking and analysis of other urban forest metrics can provide more immediate insights to guide City policy or program adjustments to support overall canopy cover gains.

Citywide Tree Canopy Cover

This UFMP sets a citywide canopy cover target of 25% by 2035. Currently 22.8% of the City, or 69,923 acres, is covered by tree canopy. Attaining a 25% canopy cover target will require an additional 6,617 acres of canopied area from the 2020 baseline to reach a total of 76,540 acres. This is roughly a 10% increase in total canopied area within the City. This increase is aligned with AB 2251, which directs the Department of Forestry and Fire Protection (CAL FIRE) to "complete a statewide strategic plan… to achieve a 10% increase of tree canopy cover in urban areas by 2035."

Neighborhood Level Tree Canopy Cover

This UFMP sets a neighborhood minimum target of 15%. While the citywide tree canopy cover target is valuable, it does not address the City's distributional canopy equity concerns. Within the City's 114 neighborhoods, canopy cover ranges from a low of 4.5% in the Downtown area to a high of 50% in the Beverly Crest neighborhood. Without a neighborhood threshold, the City could meet or surpass the citywide 25% canopy goal without addressing inequity and leaving many communities well below that minimum. However, given the very low tree canopy cover in some neighborhoods, this minimum 15% neighborhood target is anticipated to be both essential and difficult to achieve.

DRAFT

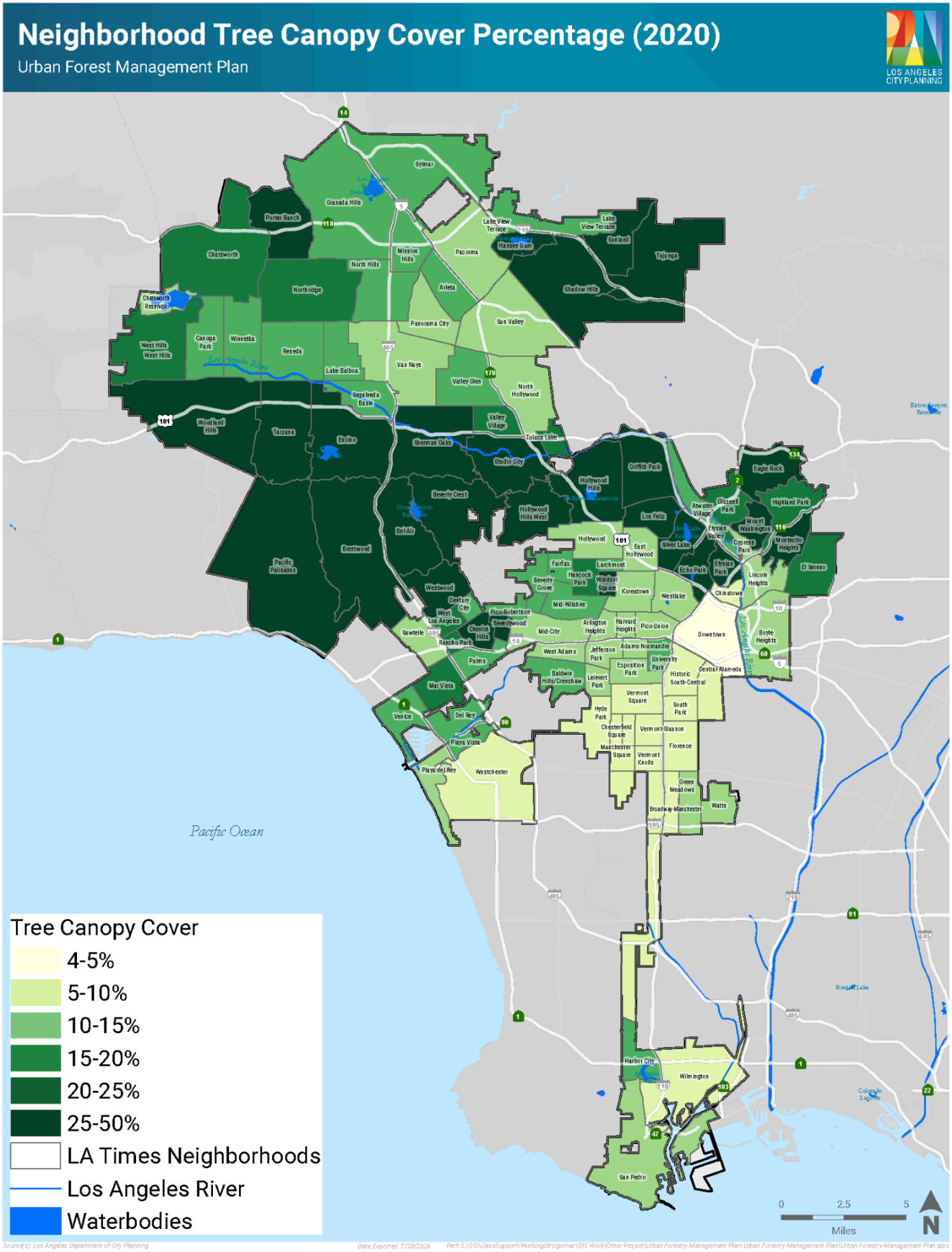
Canopy Cover Range	Number of Neighborhoods	Percent of Neighborhoods	Percent of Total City Area
Tree Canopy Cover Under 15 Percent			
	44	**39%**	**29%**
Under 5%	1	1%	1%
5% to 10%	17	15%	9%
10% to 15%	26	23%	19%
Tree Canopy Cover Between 15 to 20 Percent			
15% to 25%	41	35%	32%
Tree Canopy Cover Over 25 Percent			
Over 25%	29	25%	38%

Neighborhoods with lower canopy cover tend to be grouped together geographically. While this aligns with the region's natural ecological makeup, with trees growing more abundantly in riparian, hilly, and mountainous areas, it also aligns with urban forest equity research that points to historic land use policies that impact the spread of tree canopy cover throughout the City today.

See Chapter 4: Equity and Canopy Expansion for a more in-depth discussion of equity as it relates to tree canopy.

It will take dedicated resources and planning in order to increase canopy in all neighborhoods to be above the minimum 15% threshold. The table below shows the number of City neighborhoods that fall into different canopy cover ranges. Almost 40% of all neighborhoods (representing one third of the City's total land area) have less than the recommended minimum 15% canopy cover. Of these neighborhoods under the target, roughly two-thirds fall into the higher end of the range with 10% to 15% tree canopy cover. With sustained and dedicated funding for urban forest activities and a focus on strengthening policies that support canopy retention and increase, the City could greatly reduce the number of communities under the 15% tree canopy threshold.

See more in Chapter 6: Tree Planting and Establishment Care, Chapter 7: Tree Maintenance, and Chapter 8: Tree Preservation detailing the types of consideration for each pillar topic that support tree canopy increase.


Neighborhood Tree Canopy Cover Percentage (2020)
Urban Forest Management Plan
LOS ANGELES CITY PLANNING
Tree Canopy Cover
4-5%
5-10%
10-15%
15-20%
20-25%
25-50%
LA Times Neighborhoods
Los Angeles River
Waterbodies
Pacific Ocean
0
2.5
5
Miles
N

Tree Canopy Cover by Other Geographic Boundaries

There are many different geographic boundaries into which the City can be broken down to calculate tree canopy cover percentages, with inequity apparent in all analysis. See Appendix L for tree canopy cover summaries based on the following geographic boundaries:

- Citywide
- Council Districts
- Community Plan Areas
- Neighborhood Councils and Community Councils
- Neighborhood
- Census Tracts
- City Parks
- General Plan Land Use Types

The amount of space available for planting trees, particularly large-stature species that offer the greatest canopy potential, is heavily dictated by land use decisions. To better identify current conditions and future opportunities for growth, it is essential for the City to perform additional assessments to understand trends and opportunities for canopy growth in various land use contexts. This should further analyze the existing distribution of tree canopy cover across various land use types and geographic boundaries.

5.2 City-Managed Tree Inventories

The City's tree resources are managed by multiple different City agencies. The Department of Recreation and Parks (RAP) Forestry Division (RAP Forestry) currently tracks tree asset inventory and related work in the Davey Resource Group's TreeKeeper8 tree inventory system. The Department of Public Works (Public Works) Bureau of Street Services (Streets LA) Urban Forestry Division (UFD) has recently transitioned from TreeKeeper8 to OpenGov's Enterprise Asset Management System to support alignment across City departments responsible for public right-of-way asset management. Other City departments with tree assets under their jurisdiction include the General Services Department (GSD), the Los Angeles Zoo (the Zoo), the Los Angeles Department of Water and Power (LADWP), the Los Angeles Harbor Department (Harbor Department), and the Los Angeles World Airport (LAWA). There is limited information on the total number of tree assets overseen by these groups.

See Chapter 3, Section 3.2: Managing the Urban Forest Across the City for further discussion of these tree assets.

CITY TREE INVENTORY SNAPSHOT

- UFD Street Trees: 660,000
- RAP Park Trees: 130,000
- Trees on City facilities and properties managed by GSD: unknown
- Trees on LADWP properties: unknown
- Trees on LAWA properties: unknown
- Trees on Harbor Department properties: 6,500 (partial inventory)

Importance of Regularly Updating Inventories

Having a clear and up-to-date understanding of the tree assets for which the City is responsible is imperative. Without such information, the City cannot efficiently care for and manage the portion of the urban forest under its direct jurisdiction. Inventory data allows responsible City departments to understand, plan for, and take action to mitigate potential risks posed by tree assets. Inventory data also allows City departments to communicate transparently with the public on work being provided to City-managed trees.

The most recent full inventories of all street and park trees were completed through contractual services in 2021 and 2023, respectively. These projects were expensive and took multiple years to complete. Without ongoing upkeep, the data quickly becomes outdated as trees continue to grow or other changes occur around them. When inventory data becomes outdated, it cannot be used as effectively for planning purposes and proactive work management. To that end, it is important that the City establish and enact a long-term plan for regularly updating and expanding tree inventories for City-managed trees. The two main strategies that the City could utilize are detailed below.

First, inventory data could be updated as work is completed on City trees. This could include adding newly planted trees when planted by City crews or when post-inspections are completed for trees planted by non-City entities. It would also include updates to existing tree records when they receive maintenance. This approach would require a dedicated team and would be most successful for street trees when paired with a program for block maintenance, where each block is inspected on a regular basis such as every five years. This would require additional capacity and resources for data entry, as current crew responsibilities do not support such data gathering and entry. With the size

of the City's urban forest, this option to maintain in-house inventory teams should be seriously explored.

Second, funding could be allocated on a regular basis, such as every five years, to conduct a full inventory update through outside contractors. This could be done through a General Fund allocation, as done for the most recent street tree inventory, or through grants available for these types of projects, as done for the most recent park tree inventory. However, grant funding is typically focused on new or significantly outdated inventories, rather than routine updates. A hybrid option could also be explored, where ongoing updates for certain attributes by City staff are augmented by less frequent full inventory updates conducted either by dedicated City staff or through contracts. The City should assess the most efficient and cost-effective strategy and ensure the selected strategy is funded to allow for consistent implementation.

Stability Metrics

This section looks at various research-backed stability metrics for tree inventories directly managed by the City. Stability metrics aim to provide a framework for the effective management of large urban tree populations. Adhering to the framework allows the City to minimize **potential negative impacts** on both the overall health of the urban forest and the administrative structure responsible for its management.

Example of Potential Negative Impact

An example of this is a new pest or disease that results in the need for a large number of tree removals at one time. This diminishes the urban forest resource and benefits, as well as requiring a large volume of staff resources to remove the trees, as well as planting and providing establishment care for replacement trees.

Stability metrics fall into two use categories. First are those used for guiding species decisions for tree planting projects. These metrics assess what species in the current inventory are overrepresented or low performing and should therefore be used thoughtfully or sparingly to support future inventory stability. Research for these metrics usually recommends measurements at a citywide scale. However, because Los Angeles is so large, with widely varying micro-climates, the City should consider using a smaller scale for these metrics, such as maintenance districts (currently UFD has 24[9] and RAP has four) or Council Districts. Second are metrics used to broadly assess inventories in order to guide and inform urban forest management resource allocations. These metrics should be measured at a citywide scale, with tree asset types separated by responsible

[9] LA City GeoHub, BSS Maintenance Districts

City department, such as park and street trees. By utilizing stability metrics as part of decisions-making processes, the City can limit disruptions from widespread threats (such as invasive pests), optimize allocations of limited resources, and foster a resilient urban forest.

The metrics included in this UFMP consider genus and species diversity, structural distribution, health condition distribution, and commonly occurring species' relative performance index. These metrics should be assessed at least every five years. This can be done as part of the process to update UFMP 5-Year Implementation Plans. As the urban forest stability metrics are based on analysis of data provided by tree inventories, it is important that the process for updating inventory data is aligned with the process for re-assessing these stability metrics.

See below for an overview of each stability metric and Appendix M for detailed review of each metric alongside current analysis and charts.

Stability Metric	Why Metric Is Important	How To Use Metric
Genus and Species Diversity	Pests, disease, and other urban forest threats tend to impact specific species or genus differently. For example, cities throughout the United States have lost large swaths of urban Ash trees due to the Emerald Ash Borer. Ensuring that no genus or species is overrepresented in the urban forest helps mitigate potential unexpected large-scale loss or maintenance needs.	Target for representation within inventory: — No species over 5% — No genus over 10% — No family over 20% Regular tracking assessments should be conducted at the Council District level and based on a dataset that combines all City-managed tree inventories. Species decisions as part of planting projects can implement this recommendation using other geographic divisions of the City, such as UFD or RAP maintenance districts, but should still combine all City-managed inventory datasets to assess species representation.
Structural (Trunk Diameter) Distribution	Structural distribution is used as a proxy for ensuring a balance of young, middle-aged, and old trees. A well-balanced structural distribution means the urban forest is providing maximum benefits, through sufficient large specimens, while also having young and middle-aged trees preparing to replace older trees as they senesce and need removal.	DBH distribution target: — 40% below 15 cm (6 in) — 30% between 15 and 60 cm (6 and 24 in) — 25% between 60 and 90 cm (24 and 35 in) — 5% over 90 cm (35 in) Measured at the citywide inventory scale for each managing department separately
Health Condition Distribution	Important for forecasting upcoming maintenance needs of a tree inventory.	No specific target. Tracked at the citywide inventory scale for each managing department separately

DRAFT

Stability Metric	Why Metric Is Important	How To Use Metric
Relative Performance Index	RPI gives an overview of species that are over- or under-performing by comparing condition data for a single species to condition data of the whole inventory. This data is helpful in making decisions on species selection when planting or identifying species needing additional or specialized maintenance attention.	Regular tracking assessments should be conducted at the Council District level and based on a dataset that combines all City-managed tree inventories. Species decisions as part of planting projects can implement this recommendation using other geographic divisions of the City, such as UFD or RAP maintenance districts, but should still combine all City-managed inventory datasets to assess species representation.

DRAFT

Chapter 5 Summary of Recommendations

Recommended Strategies or Actions to Address in Current or Future Implementation Plans	Strategic Plan Connections
Tree Canopy Cover	
Adopt citywide and neighborhood level canopy targets of 25% citywide and a minimum neighborhood target of 15%.	**Strategy** D-4
Regularly conduct canopy cover and/or land cover analysis or utilize analysis conducted by Los Angeles County or other regional partners to track success towards canopy goals over time. Recommended to assess canopy on a 5-year timeframe.	**Strategy** D-4
Establish a process for OFM to annually track urban forest activities that impact canopy cover gains and losses through data reporting from other City departments. Tracking for these activities should separate different tree types (street, park, protected private property, etc.).	**Strategy** D-5
Utilize analysis of urban forest activities that impact canopy cover gains and losses to assess expected progress toward overall urban forest gain or loss and recommend policy, program, and funding adjustments for the City to consider.	**Strategy** D-5
Further assess available land cover, tree canopy cover, and tree point data and emerging research to better understand the canopy expansion or loss caused by City policy and programs, potential canopy increase opportunities, and to support recommendations for updates, as necessary.	**Strategy** D-4
City-Managed Tree Inventories	
Assess the most cost-effective strategy for updating tree inventory data regularly for each City department responsible for tree asset management. Inventory data should be updated at least every 5 years for actively managed City tree assets and every 10 years for trees in parks or open space areas with limited public access. Assess and update the inventory systems to track all attributes necessary for monitoring stability and health metrics and other UFMP actions.	**Strategy** D-3
Provide funding in the budget process for maintaining up-to-date City-managed tree inventory data for each City department responsible for tree asset management, including funding for regularly training staff on inventory software.	**Strategy** G-4
Utilize inventory data analysis of genus and species diversity and Relative Performance Index (RPI) in species decisions for planting projects to mitigate impacts from future pest infestations and diseases and reduce the frequency of low performing species with potentially high maintenance needs.	**Strategy** D-3
Utilize inventory data analysis of structural and health condition diversity to advocate for planting and maintenance resources for UFD and RAP Forestry to manage healthy inventories of tree assets.	**Strategy** D-3

DRAFT

Chapter 6: Tree Planting and Establishment Care

Tree planting is the first step in the life cycle of tree management and includes all activities needed to grow a new tree during the first five years after installing it in the ground.

Chapter 1, Section 1.3 Four Pillars of Urban Forest Management also includes a detailed overview of these activities.

Tree planting includes activities related to:

- Site selection, preparation, and design
- Tree species selection and consideration
- Nursery stock selection and tree installation
- Establishment care, including activities performed in the first five years after installation, such as watering, weeding, mulching, fixing or removing stakes, and structural pruning
- Necessary inspections and approvals related to permitting, if applicable

This chapter expands upon the topic and includes sections on community feedback on the topic, who funds and conducts tree planting within Los Angeles, and challenges and opportunities for tree planting and permitting.

6.1 Why Plant Trees?

Expanding the urban forest through new tree planting is vital for on-going urban forest health and addressing urban forest equity. It is important that planting efforts are structured to maximize overall essential ecosystem services and benefits received by Angelenos, achieve efficiencies in resource utilization, and balance the use of the limited resources of space and water.

Urban forest benefits are maximized when tree planting programs and initiatives prioritize clearly defined outcomes related to impacts (such as level of shading and cooling) and success metrics (such as survival and growth rates), rather than focusing on a specific number of trees to plant. To ensure that the investment in planting and establishment yields significant long-term benefits and services, it is critical to provide site conditions that support tree health and longevity. This includes creating sufficient space for

large-stature broadleaf or evergreen species, which offer greater benefits than smaller ornamental varieties.

Newly planted trees are an investment that will ideally be a public asset for decades. It is therefore important for planting efforts to align with the qualities of a healthy urban forest. These include:

- Urban forest stability metrics:
  - Genus and species diversity to protect against potential future pests, pathogens, and other species-specific threats
  - Structural (age) diversity to ensure a sudden canopy cover decrease does not occur as mature trees die and are removed
- Large planting locations, maximizing:
  - Availability of soil and water needed for healthy trees
  - Shade potential in areas with high foot-traffic from pedestrians and transit users
- Utilize species that:
  - Perform well in the challenging and unique conditions within the public right-of-way and parks
  - Have limited risk to the many targets within the urban forest
  - Are generally resilient to the stressors of increased heat, drought, wind and storm events, and known pests and diseases
  - Support habitat patches and ecological corridors, especially through thoughtful use of native species

CANOPY EXPANSION IMPACT

Adding new trees, especially large stature species, increases the City's tree canopy over time and is important for addressing canopy inequity.

However, newly planted trees in Los Angeles require proper planting considerations and establishment care in order to be successfully "installed". Without this investment, newly planted trees will die. This not only removes any canopy expansion that an individual tree can provide, but also is a negative tree experience for the community and is likely to cause resistance to future tree planting efforts.

DRAFT

6.2 Community Feedback on Tree Planting

See Chapter 1, Section 1.4: UFMP Community Engagement Campaign for more details on the engagement process.

Tree planting and establishment occupy a high position within the community's values for public spaces. This was a significant theme in the feedback received as part of the community engagement led by the UFMP's community partners.

The feedback received regarding tree plantings from the participants overwhelmingly identified the lack of tree canopy and shade, particularly in lower income communities as well as Black and Latino communities. Participants reflected that shade and tree canopy in these communities is particularly critical due to the excessive heat that is amplified by the hardscaping and lack of open space and parks. Participants reflected a desire for the City to consider equitable distribution of trees with consideration given to where new tree planting is needed most.

In the online questionnaire, participants said the two most important activities for the City to do more of were "planting trees" (71%) and "caring for young, newly planted trees" (70%). In the in-person workshops, participants indicated that they wanted to see new trees planted in many places, mostly focused on increasing shade in areas where people are frequently spending time outside. This includes on school campuses near outdoor play areas, in parks next to sports fields, picnic areas, and playgrounds, alongside pedestrian pathways such as sidewalks and walking paths in parks, next to bus stops, in commercial districts, and in parking lots. Many participants also expressed a desire to support and allow renters to plant trees in multi-family residential developments, particularly in areas that lack tree canopies in the public right-of-way.

These comments and feedback received regarding tree plantings and shade were also consistently heard in the engagement conducted for the City's 2025 Climate Vulnerability Assessment (CVA), the draft Health and Environmental Justice General Plan Element and the draft Open Space Element Update.

6.3 Who Funds and Plants Trees?

Street Trees

New street trees are planted by many different entities, with the Department of Public Works (Public Works) Bureau of Street Services (StreetsLA) Urban Forestry Division (UFD) ultimately responsible for the activity. UFD has not always had an active planting

program, with a 10-year gap from 2008 and 2018. Since 2020, UFD planted between 941 and 2,467 trees annually,[10] based on the budget and resources available in each fiscal year. Funding for UFD's planting programs comes from the City's General Fund, the Guarantee Tree Fee (GTF) Fund (see Appendix C for more details), the Sidewalk Repair Program (SRP), and grant funded design build projects. Limited funding remains within the Public Works Trust Fund from Street Tree Deposits and previous Oak Tree Deposits.

Outside entities also plant a substantial number of trees annually, with UFD providing oversight and permitting. These groups include:

- **Nonprofit planting partners:**
  - Contracted with funding from the Los Angeles Department of Water and Power (LADWP) Tree Planting Program (historically known as the City Plants program)
  - Contracted with funding from the Public Works Bureau of Sanitation and Environment (LASAN) state and federal grants
  - Independently secured state and federal grants and philanthropy
- **Development projects** may have street tree planting requirements, may plant street trees surrounding the project when on-site requirements cannot be accommodated, may plant at a 2:1 replacement for street tree removals approved as part of the project, or may be required to pay into the GTF Fund (per LAMC section 62.177) if required street trees cannot be accommodated around the site.
- **Capital improvement projects** may plant street trees, either new trees or at a 2:1 replacement for street tree removals approved as part of the project.
- **Community and neighborhood groups**, through independently secured funds, may work on street tree planting projects in their specific community area.
- **Individual property owners** may request a permit from UFD to plant street trees directly surrounding their property.

The City's nonprofit planting partners have consistently provided increased funding and capacity for street tree planting and establishment care, new tree well creation, and community outreach, education, and engagement. UFD reported providing permits for planting between 753 and 5,301 trees annually between the 2020-21 and 2024-25 fiscal years.[11] From 2008 to 2018 the LADWP Tree Planting Program funding and grants obtained by LASAN and the nonprofit partners were the only broad tree planting initiatives in the City. During years with tight budgets or when tree planting is not prioritized, nonprofit partners aided the City in maintaining age diversity in the street tree population and expanding overall canopy through tree planting and establishment care.

[10] City of Los Angeles Capital Infrastructure Program, 2026
[11] City of Los Angeles Capital Infrastructure Program, 2026

Park Trees

According to the Department of Recreation and Parks (RAP) Urban Forestry Manual (2025), "approximately 500 trees are planted in LA parks each year."[12] Historically and currently, the RAP Forestry Division (RAP Forestry) does not have dedicated funding or staff positions for tree planting and young tree establishment care. New trees are typically funded and planted in three ways:

- **RAP Forestry**, with funding received from state or federal grants.
- **Nonprofit partners**, through independently secured state and federal grants, other funding sources, or through volunteer events.
- **Capital improvement projects** implemented by RAP, in coordination with the Public Works Bureau of Engineering (BOE).

Ensuring regular tree planting activities occur is important to keep parks from experiencing a sudden drop in canopy when mature trees die or need removal. Parks are a public space that play a critical role in providing overall canopy to communities, supporting cooling and access to nature. Furthermore, parks tend to have better locations than streets for healthy tree growth, with fewer obstructions and infrastructure that can conflict with trees as well as larger areas of unpaved soil. This is especially true for large stature tree species. As a result, individual trees in parks tend to provide more essential ecosystem services and benefits than individual street trees.

There is limited funding for tree planting around City facilities and in City-managed open spaces not managed by RAP. See Chapter 3, Section 3.2 Managing the Urban Forest Across the City for further discussion on these trees.

Private Property Trees

Aside from general property owner landscaping activities, there are two other mechanisms through which tree planting on private property occurs:

- **LADWP Tree Planting Program** (also referred to as the City Plants program)
  - LADWP funding is transferred to the Board of Public Works (BPW) and implemented through contracts with nonprofit partners.
- **Development projects**, through requirements for landscaping, open, and green space.

LADWP's Tree Planting Program, which began in 2002, provides LADWP customers up to seven free trees to plant on their property. Nonprofit partners implement the program by hosting community adoptions and enrolling residents for tree deliveries. LADWP has also

[12] Department of Recreation and Parks Urban Forest Manual, p.59

funded expanded multilingual engagement, nursery operations, education and support, and workforce development relevant to this program. These additions are critical to ensuring this program is successful in low canopied, high-risk communities. Despite being the City's only private property tree initiative, it remains under-utilized.

6.4 Challenges and Opportunities for Tree Planting

Growing new trees is a multi-step, multi-year process that covers activities related to planning, tree installation, and establishment care. Essential considerations that support long term urban forest health and outcomes include site selection and design with consideration of potential targets and conflicts, soil health, species selection, healthy nursery stock, site preparation, proper tree installation, and sufficient establishment care and water.

It is important to align new tree plantings with the City's broader urban forest goals. Resources must be spent over trees' lifetimes to manage them. However, if planned and well-maintained these trees will grow for decades, giving back an estimated $5.82 in benefits for every $1 spent on management.[13] Trees are beautiful but are not solely decorative. Within the City they are being used to shade pedestrian corridors, provide relief and prevent heat related illness, support stormwater capture and water quality, as well as the many other benefits trees provide.

Challenges and opportunities for tree planting in Los Angeles include those related to:

- Insufficient funding
- Built environment redesign and development of viable pathways for implementation
- New and updated policies governing tree planting projects and programs
- Procurement of high-quality nursery stock and desired species
- Watering needs for establishment care and during droughts
- Considerations for private property, such as inclusion and promotion of native tree and shrub species, development project requirements, and support for renting populations

[13] E. Gregory McPherson, Natalie S. van Doorn, PhD, John de Goede. (2016). Structure, function and value of street trees in California, USA. Urban Forestry & Urban Greening, 17, 104-115. https://doi.org/10.1016/j.ufug.2016.03.013

Insufficient Funding for Street and Park Tree Planting Work

City funding for street and park tree planting work has been chronically under-resourced. This includes both direct planting programs for street and park trees and UFD's capacity to oversee, permit, and track street tree planting work conducted by non-City entities.

See Chapter 3, Section 3.5 City Structure and Chapter 10: Funding the Urban Forest for recommendations for structural changes and to increase urban forest funding that could support continuity in tree planting work.

City Street Tree Planting Program

During tight budget years resources for street tree trimming are prioritized over tree planting efforts. The inconsistent funding for the City's street tree planting program, and reliance on the outcomes of an annual budget cycle, means the City's approach for directly planting street trees has remained tenuous. For a decade, from 2008 to 2018, the City budget included no funding for UFD's tree planting program. Consideration should be given to increasing funding for a City program to directly conduct activities related to tree planting.

While a fee update is needed to reflect current costs, the Guarantee Tree Fee (GTF) Fund could be utilized to support UFD budget request justifications for crews to plant, water, and establish all required GTF funded trees each year. Consideration should also be given utilizing the GTF to plant and establish large stature species in capital projects. Capital project funding sources sometimes do not allow for tree planting or landscaping line items and this existing fund could help cover the gap.

Oversight of Street Tree Planting Permits

UFD is responsible for overseeing permitting for street tree planting. As the City ultimately takes on the long-term maintenance of those trees and their liability, it is within the City's interests to have a process to ensure new street trees are properly inventoried and planted following City standards, nursery specifications, and tree species guidance that considers desired outcomes, stability metrics, compatibility with site conditions, and overall tree risk. At the same time, tree planting is the activity with the most opportunities for external financial support through state and federal grants, philanthropic funding, and development or capital improvement projects. This means it is also within the City's best interest to ensure the permitting and oversight processes are straightforward, clear, and easy to navigate for those planting trees with external resources.

Street tree planting projects conducted by non-City entities face significant challenges. This is currently an issue, but is not new, with the severity fluctuating over the years. Chronically, UFD lacks staff resources dedicated specifically for oversight and permitting.

Steps must be taken to increase the overall level of staffing for tree planting permitting, provide a consistent experience for all applicants, and ensure timely issuance of permits. Steps should also be taken to ensure consistent tracking of trees planted by outside entities within the City's street tree inventory system.

Park Trees

Funding for planting crews within RAP Forestry have been limited, and receive less external funding than street trees. Park trees have not been planted as part of LADWP's Tree Planting Program as energy use reduction benefits are not as easily quantified for park trees. Park planting could be addressed through increased funding for staff or contractual services for RAP Forestry either through General Fund allocations or identification of other dedicated funding opportunities. RAP Forestry has recommended that even one crew dedicated to tree planting and establishment care would make a significant impact. Such a crew could plant trees in the late fall and winter months, and provide establishment care during the warmer months. This crew could also provide limited maintenance support for young trees through structural pruning.

Built Environment Redesign

Some planting sites, referred to as Tier 1, can accommodate a tree immediately without any augmentation. These sites require consideration of the amount of space in the air and ground available to sustain a new tree without creating conflicts with surrounding infrastructure - potentially limiting the species and future canopy size that can be planted. Planting Tier 1 sites alone will likely not support the level of canopy that this UFMP recommends.

Tier 2 and Tier 3 sites are sites that require moderate to significant modification to create space for planting a tree. This ranges from pavement removal that creates new tree wells, to installing structured soil solutions that create greater space for tree roots, to larger built environment redesign and capital projects. These types of interventions allow for the creation of new tree planting sites and for sites that can accommodate large-canopied tree species. In order to take advantage of these types of planting locations, construction and engineering best practices require the City to have established standards and permit oversight processes within the appropriate City departments. There is an opportunity for the City to do this, significantly accelerating the potential canopy increase at new planting sites.

While some design alternatives have been developed, there is currently no clear pathway within the City to implement new concepts that aid canopy expansion. It is recommended that the City develop criteria for when design alternatives can be used, as well as

standard plans and a clear permitting and approval process. This will promote projects developed and funded by external entities that can provide significant support to meeting the City's goals. Consideration should also be given to developing pathways and standards for in-street planting or sidewalk expansion to allow for additional planting space, as well as creating and implementing a system to make temporary non-car transformations of street areas permanent that includes new tree planting locations. StreetsLA landscape architects and UFD staff should be engaged to develop these components in collaboration with other City departments with assets in the public right of way.

It is not assumed that there is a one-size-fits-all solution, but rather the City should consider its other developed frameworks, like the Mobility Plan Networks, street typologies, and adjacent land uses, and determine where canopy is a higher priority for space, in the interest of public safety and use of the public easement, than other infrastructure elements or uses. There will be streets that potentially remain unshaded, but this should happen with awareness of the primary use and function of that street rather than due to a lack of design criteria.

Policies Governing Tree Planting Projects and Programs

In order to ensure best practices are adhered to by planting projects throughout the City, it is important that the City maintain standards, guidelines, and policies that govern tree installation. This includes Los Angeles Municipal Code (LAMC) requirements, BPW policies, BOE standard plans, and UFD policies and guidelines. City documents should be consistent and clear in order to support high-quality tree planting throughout Los Angeles. This includes clarity for both City tree planting programs and permitting and oversight processes of trees planted by external entities. Policy implementation should allow for expertise-based staff discretion based on site specifics, with clear criteria to ensure this discretion is applied in a consistent manner. When standards, guidelines, and policies are updated, the process and reasons for changes should also be clear and transparent for the public.

Due to the crowded nature of the public right-of-way and the governance structure of other infrastructure, street trees require highly specific standard plans and guidelines. This includes standards that create space for trees, such as tree wells, parkways, bump outs, and medians. This also includes standards and guidelines to support healthy tree growth and address public safety concerns. There are existing standards for tree guards, grates, and root control barriers and existing guidelines for tree spacing from other public infrastructure. Additional tools, such as structured soil solutions, and updates to existing

standards and guidelines should be pursued. When park trees are planted near paved areas or structures they also benefit from these types of standards and guidelines. Tree installation and staking standards, species lists or criteria, and establishment care and watering requirements are needed for both park and street trees.

City departments have made updates to documents guiding street tree planting and establishment care over time. The City should consider enacting further updates or creating new documentation for the following:

- **Updates to existing documents:**
  - Standard plans for street tree sites (BOE)
  - Street Tree Spacing Guidelines (UFD)
  - Establishment care policies (BPW and LAMC)
  - Soil Volume Guidelines (UFD and City Planning)
  - Master Street Tree Species list (UFD and OFM)
  - Urban Forest Manuals (for departments with existing Manuals)
- **New documents to create:**
  - Tree Canopy Equity Priority Index (OFM)
  - Public Right-of-Way Landscape Ordinance (StreetsLA and LAMC)
  - Parkway standard plan (BOE)
  - Pavement suspension systems standard plan (BOE)
  - Nursery stock specifications (UFD and/or RAP Forestry)
  - Urban Forest Manuals (for departments without one)
  - Street Tree Master Plan (UFD and OFM)

Procurement of High-quality Nursery Stock and Optimal Species

A robust local nursery network with reliable tree stock is essential to sustaining a healthy, diverse, and climate-resilient urban forest, while also representing a significant opportunity for local economic development. The region includes numerous private wholesale nurseries, retail nurseries, and nonprofit and community-based growers. However, despite this existing capacity, both RAP Forestry and UFD have identified persistent challenges in procuring the species, quantities, sizes, and quality of trees needed.

Current procurement practices constrain the City's flexibility. RAP's Urban Forest Manual details how plant material is obtained through a commodity contract with the General Services Department (GSD) that relies on a single contracted nursery broker. While administratively streamlined, this approach limits species availability, restricts size options, and reduces the City's ability to secure the highest-quality nursery stock.

Procurement policies may also create barriers to contracting with additional local private and nonprofit nurseries. Regional capacity to supply native and other climate-appropriate species at scale remains limited.

Reliance on a single supplier means that park and street tree plantings are largely determined by current nursery inventory. When a species is unavailable in a desired size, such as 15-gallon or 24-inch box stock, planting schedules may be delayed or species substitutions made. This dynamic can undermine long-term goals for species diversity, climate adaptation, and urban forest resilience.

The City should consider expanding the use of contract growing agreements, creating a prequalified list of local nurseries, and establishing a network of municipal nurseries on vacant and underutilized public sites to build long-term supply capacity and operational resilience.

Quality of nursery stock is equally critical. Procuring from limited sources can potentially constrain access to quality stock and increase the risk of planting substandard material, potentially contributing to higher mortality rates. As part of procurement reform, the City should update nursery stock standards to require or strongly encourage best management practices that support sustainable seed collecting protocol, genetic diversity, pathogen reduction, **healthy root development**, and long-term tree performance.

Healthy Root Development

A common issue is girdling (circling) roots, which occur when trees remain in containers too long without being shifted to larger sizes. Once established, circling roots can restrict long-term growth, reduce structural stability, and in severe cases cause premature tree failure. Emerging nursery technologies, such as air-pruning systems (e.g., pioneer pots), promote healthier root systems and improve establishment outcomes.

Water - Establishment Care and Drought

Currently, the most expensive component of planting a new public tree in Los Angeles is the cost of establishment care. This includes activities such as weeding, applying mulch, adjusting or removing stakes and ties, minor pruning, and the most critical component - regular watering. Los Angeles experiences long periods without rainfall, sometimes as long as nine months. If newly planted trees are not provided supplemental water during that time, they will die. Young trees with smaller root systems need frequent deep

watering. In Los Angeles, this typically means deploying crews with a water truck to provide supplemental water and other care activities.

While the exact cadence for successful establishment care varies, visits should be conducted on a regular basis - roughly once per week - and should be increased in the hotter, summer months. Historically, UFD and nonprofit planting partners in Los Angeles conducted 33 visits per year. The number of annual visits can be tapered during the fourth and fifth years of establishment to prepare the tree for the cessation of supplemental watering. Stakes and ties must also be removed before the end of the establishment period when trees have developed trunk taper and root growth to support themselves independently.

The City should update all policies and applicable municipal code sections to reflect the best practice of requiring a five-year establishment period for all street trees. This need is also supported by feedback from City and nonprofit staff about tree health and survivability. In addition to funded establishment care crews, there is a historic practice of asking residents to take on the responsibility of watering newly planted street trees. This was done to assist with this time consuming and expensive establishment care line item. However, the results are inconsistent, both in terms of tree health and public attitudes toward tree planting programs. In general, the City should require planting projects to have funding for five years of care to ensure successful tree establishment and growth.

As many grant programs managed by the State do not allow for more than two or three years of establishment care, the City should advocate that these grant programs include five years of establishment care as an eligible expense. The California Department of Forestry and Fire Protection (CAL FIRE) has successfully done this and could be used as a model for other agencies. To address this shortfall in grant funding, the City could also consider funding additional watering crews within UFD dedicated specifically to covering the fourth and fifth year of establishment care. This could also provide some or all of the match funding required by many grants.

Park trees also face the threat of water restrictions during periods of drought. These restrictions change the site conditions for trees that have grown accustomed to a certain amount of supplemental water from irrigation in the parks system. Water restrictions can pose a threat to newly planted trees, as those trees are intentionally planted within the footprint of existing irrigation systems to minimize the resources needed to establish these young trees. Young tree root systems are smaller and developing, as such, they are even more vulnerable to decline or failure when irrigation is reduced or shut off due to water restrictions. This should be understood and considered, as these are typically grant

investments that the City has committed to retaining for a minimum period of time to be compliant with the granting agency that funded their planting.

The addition of funding for a planting and establishment care crew or contractual services would assist with but not entirely address this issue. Local water agencies have attempted to modify policies to reduce tree impacts, allowing for hand watering of trees during periods of water restrictions. For RAP Forestry, this is not a feasible approach as hand watering young park trees is time consuming and is not the most efficient way to deploy City resources.

Tree Planting on Private Property

The City has less direct purview over tree planting on private property. However, that does not mean that there are no opportunities the City should consider related to private property tree planting policies and programs. Private property trees, and tree planting, are critical to achieving the City's canopy cover goals due to the high proportion of trees in the urban forest that exist on private property. Furthermore, research for the City shows that achieving canopy cover goals is not possible utilizing exclusively existing vacant public spaces.

Inclusion and Promotion of Native Tree and Shrub Species

Private property locations not only are home to the majority of the trees in the City's urban forest, but also have the opportunity to play a critical role in urban ecosystem health and function. Many of the trees and shrubs native to Los Angeles are not always feasible to plant in the public right-of-way or park sites, but are ideal for prioritizing in private property landscapes. Collaboration between LADWP, the Office of Forest Management (OFM), nonprofit partners, and LASAN's former Biodiversity Program team, along with the City's Biodiversity Expert Council, could result in the development of resources to guide and encourage the public to enhance the health and function of the ecosystem and increase available habitat areas and connectivity through private property landscaping. Funding for increased capacity would be required to achieve this.

Both LADWP and the nonprofit City Plants have indicated interest in promoting and providing tree and shrub species indigenous to Los Angeles in the LADWP Tree Planting yard tree program, as many such species could provide tremendous benefits to habitat connectivity and the City's biodiversity goals through planting these on private property. However, there has not yet been capacity to update the yard tree plant lists and provide updated guidance to residents who may be looking to use the free yard tree program.

DRAFT

The pilot program at the Commonwealth Nursery or other similar local nursery projects go even further by providing locally sourced and propagated plant material for the yard tree program. There is a desire to have these types of nursery programs expand their seed collection and propagation, and the volume and diversity of plants they provide, particularly regarding trees and shrubs native to Los Angeles. There is interest from LADWP and City Plants to have a larger portion of the yard tree program receive trees from Commonwealth, as it allows opportunities to expand local genetic diversity alongside workforce development and training in partnership with Los Angeles Conservation Corps (LACC).

Private Property Tree Planting Program Pilot and Potential Expansion
In response to the under-utilized nature of the yard tree program, the nonprofit City Plants and other contractors of the LADWP Tree Planting Program created the Pilot Private Property Planting Program. This pilot provides expanded resources to support residents in planting private property trees. It will be important to track the effectiveness of the pilot program in growing new trees on private property. Once necessary adjustments have been made to ensure the program's success, the pilot program could be expanded. Additionally, future community engagement campaigns from the City and external partners on the importance of trees in general could help increase tree planting on private property.

Development Project Policies
Outside of direct programs, the City influences private property tree planting through planning policies related to development projects. Requirements for trees, and the subsequent shade, cooling, and local access to nature they provide, within development projects are one of the ways that the City can support Angelenos' quality of life and overall goals for canopy equity. Building new or increased housing is important and when it includes good tree infrastructure it supports the City's neighborhoods in staying livable.

Overall, fewer trees are currently being planted as part of new development projects due to open space reduction allowances, a higher number of projects building lot line to lot line, and reduced discretion allowed by California State. This is a concern for urban forestry throughout California, not just within Los Angeles, as state-level policies attempt to expedite housing production. It is therefore important to continue coordinating with state-level decision-makers regarding the impacts that housing policies and other state legislation has on urban canopy cover.

The recent update to the Landscape and Site Design Ordinance (LSDO) is a good example of a policy that encourages good urban forest outcomes within projects (see Appendix C

for more details). However, for tree-related requirements to be successful, the relevant City departments must be staffed appropriately to provide the necessary oversight and permitting. Currently, Los Angeles City Planning (City Planning) does not have the appropriate technical expertise within the teams focused on project planning and development services to provide oversight on the tree planting component of projects and UFD does not have sufficient staffing to support this effort.

In addition to the need for sufficient oversight at the installation phase of projects, there is also a need for City capacity to oversee and enforce the retention and proper maintenance of required private trees. Frequently, actions taken by private property owners result in stunted tree growth or high tree mortality. Trees that do not receive proper establishment care, either accidentally or purposefully, are unable to thrive and are therefore never fully "installed." In order for tree planting requirements to successfully support the City's tree canopy cover goals, the required trees must reach their expected mature size.

With all policies intended to support canopy increase, the City should develop metrics and plan for tracking the canopy impacts of those policies. As an example, for the updated LSDO, City Planning could identify metrics to track over time for a sample of cases required to comply. These metrics and monitoring activities would allow the City to acknowledge and celebrate canopy successes from this updated policy, and provide information for revising the LSDO, or the related points system, to better support canopy goals if needed.

Inclusion of Renting Populations

Improving canopy equity includes supporting renters in accessing and planting trees where they live. Community engagement for the UFMP revealed that residents in single and multi-family rentals desire trees for their cooling, health, and aesthetic benefits. However, renters lack control and often feel uncomfortable or are refused when asking landlords for new trees. With 55% of the City residents renting,[14] often from non-local landlords, the City should consider its role in supporting their well-being. This could include developing standards for minimum canopy levels on private property, based on land-use type, to ensure canopy levels that provide community benefit and protection from extreme heat. This could also include increasing spaces for street and park trees in neighborhoods with high renting populations. Further consideration of solutions for this issue should be explored in the future.

[14] State of Los Angeles County Housing and Neighborhoods. 2025. University of Southern California (USC) Neighborhood Data for Social Change. https://la.myneighborhooddata.org/solachan-2025-homeowners/

Chapter 6 Summary of Recommendations

Recommended Strategies or Actions to Address in Current or Future Implementation Plans	Strategic Plan Connections
Insufficient Funding	
Increase or reallocate funding for UFD's direct tree planting programs to increase City crews or to fund contractual work related to tree planting, establishment care, and young tree structural pruning and allocate funding for related needs for equipment and yard space.	**Strategy** G-4
Increase or reallocate funding and staff authorities for UFD oversight of tree planting permitting, including an assessment of permit fees, reallocation of existing UFD staff, and increases in General Fund allocations as part of the City budget process.	**Strategy** G-4
Assess and implement a streamlined process for issuing street tree planting permits that provides necessary oversight for planting sites and compliance with permit requirements, efficiently uses UFD staff time, and also supports external planting partners in receiving permits in a clear, straightforward, and timely manner. Ensure this process includes mechanisms for closing out planting permits and adding or updating the City inventory with newly planted trees and un-planted sites.	**Strategy** B-4
Assess the notification process for street tree planting projects and update as needed to ensure it is clear and standardized for all City-led and external projects and surrounding community members.	**Strategy** E-5
Require training and expertise related to species selection and other planting considerations for City staff that oversee tree planting permitting and/or species selection as part of the City's tree planting programs.	**Strategy** E-2
Assess and update the Guarantee Tree Fee (GTF) fees and other relevant policies to ensure fees match current conditions and cover the lifetime maintenance costs for required trees that are planted as street trees or in other locations managed by the City.	**Strategy** G-2
Evaluate use of the Guarantee Tree Fee (GTF) funding within capital improvement projects. Assess the utilization of the GTF funding to add high-quality canopy trees as part of capital projects that are unable to plant trees through other funds.	**Strategy** G-2
Increase funding for RAP Forestry for tree planting to create City crews or to fund contractual work for direct tree planting programs and allocate funding for related needs for equipment and yard space to meet annual planting goals.	**Strategy** G-4
Built Environment Redesign	
Develop implementation pathways for alternative design considerations that allow for large space for trees in the public right-of-way, including criteria for use, standard plans, and permitting mechanisms. (See also Chapter 4: Equity and Canopy Expansion)	**Strategy** A-3
Establish and utilize minimum canopy cover targets for the public right-of-way based on categories such as street typology. This should include specific consideration for sidewalks, transit stops, other areas with high pedestrian use, and sites where constraints limit canopy expansions. (See also Chapter 4: Equity and Canopy Expansion)	**Strategy** A-4
Include canopy in public right-of-way conversions by creating and implementing a system for including tree planting as part of sidewalk widening efforts and when temporary non-car transformations of street areas are made permanent.	**Strategy** A-4

DRAFT

Recommended Strategies or Actions to Address in Current or Future Implementation Plans	Strategic Plan Connections
Policies Governing Tree Planting Projects and Programs	
Regularly assess and update BOE standards and details for street tree planting, including S-450-4, S-455-2, and S-456-2.	**Strategy** E-1
Consider updating UFD's Tree Spacing Guidelines to allow for increased potential tree planting locations within the public right-of-way.	**Strategy** E-1
Develop a new Public Right-of-Way Landscape Ordinance that updates the LAMC to provide consistent tree establishment and watering requirements for street trees, along with other landscape design and maintenance considerations.	**Strategy** E-1
Assess the LAMC and other City policy and take action to enact the necessary updates to support the requirement of five years of establishment care for all street tree planting, including replacement tree requirements.	**Strategy** E-1
Continue to update and iterate upon the Tree Canopy Equity Priority Index as new datasets become available and in collaboration with other City departments to ensure alignment with use needs. (See also Chapter 4: Equity and Canopy Expansion)	**Strategy** A-2
Provide information and access to the Tree Canopy Equity Priority Index to support and allow City departments to utilize the Index for prioritizing focus areas for tree planting projects and policies.	**Strategy** B-1
Finalize and release the updated Street Tree Selection List and develop a process to regularly assess and update as local conditions change, including a process for assessing new species' performance as street trees.	**Strategy** E-1
Develop protocols for testing new species for use as street trees and create clear criteria for success. Continue to review current research and collaborate with other municipalities. Provide updated guidance on species selection through revised criteria or lists, as appropriate, based on pilot outcomes. (See also Chapter 2: Trees in the Urban Ecosystem)	**Strategy** D-2
Utilize existing guidelines and consider further development of standards for required minimum soil volumes to promote and achieve canopy targets.	**Strategy** E-1
Consider updates to and/or creating new standard plans to support increasing open, uncompacted soil volumes including creating new standard plans for parkways and pavement suspension systems solutions and updating S-444-1 (Sidewalks) to require City oversight when removing a parkway.	**Strategy** E-1
Assess and update existing or adopt new Nursery Stock Specifications for use across all City departments procuring and planting trees, including adding root health, plant pathogen control, and local genetic diversity requirements and consider requiring the usage of planting containers that use air pruning to prevent girdling roots and other new and emerging nursery technologies.	**Strategy** B-3
Complete and Adopt a Street Tree Manual to document UFD's policies and processes for oversight and management of the City's street tree assets, including those related to tree planting and tree planting permitting. (See also Chapter 7: Tree Maintenance and Chapter 8: Tree Preservation)	**Strategy** E-6

DRAFT

Recommended Strategies or Actions to Address in Current or Future Implementation Plans	Strategic Plan Connections
Continue to adopt updated versions of the RAP Urban Forest Manual as updates are needed for tree planting programs and oversight. (See also Chapter 7: Tree Maintenance and Chapter 8: Tree Preservation)	**Strategy** E-6
Create and adopt Urban Forest Manuals for City departments other than UFD and RAP Forestry responsible for tree assets. This may include GSD, LAWA, the Los Angeles Harbor Department, and LADWP. (See also Chapter 7: Tree Maintenance and Chapter 8: Tree Preservation)	**Strategy** E-6
Develop a framework for street tree master planning, with a process for community input and consideration of climate change impacts on species range and/or performance, and include consideration of other planning activities for sub-sections of the City that may pair well with creating street tree master plans (such as disaster recovery planning, transit focused planning, and Community Plans).	**Strategy** E-7
Procurement of High-quality Nursery Stock and Optimal Species	
Assess the best method for developing a budget process that considers the long-term nature and impacts of urban forestry work. This should include consideration of efficiencies and cost-savings gained through proactive, inspection-based tree maintenance programs and contract processes needed to address multi-year urban forestry costs, such as contract-grow contracts. (See also Chapter 3: History and Governance of Trees in Los Angeles and Chapter 7: Tree Maintenance)	**Strategy** G-5
Improve plant procurement process through a prequalified nursery list and/or contract growing to allow for a wider selection of species, high-quality nursery stock, and increased local economic opportunity.	**Strategy** B-3
Consider working with regional partners to establish a network of municipal nurseries on vacant and underutilized public sites. Perform assessment of City-owned and -managed facilities and properties to determine whether any can be used for additional nursery and workforce development activities.	**Strategy** B-3
Water - Establishment Care and Drought	
Continue to advocate for state and federal funding to include important urban forestry activities in addition to tree planting, such as full five years of establishment care, maintenance, education, and outreach. (See also Chapter 10: Funding the Urban Forest)	**Strategy** G-3
Ensure water restrictions during times of drought do not restrict watering for establishing young park trees or for mature park trees that rely on irrigation.	**Strategy** C-5
Tree Planting on Private Property	
Update the list of trees available through the LADWP Tree Planting yard tree program and program materials to include and promote tree and shrub species native to Los Angeles as well as fruit trees, as feasible. Assess the best way to expand local seed collection and propagation as part of this program.	**Strategy** B-2
Provide additional educational resources for residents and developers on native tree and plant species, particularly around their selection, planting, and care.	**Strategy** B-5
Continue providing funding for residential tree planting through LADWP or other programs.	**Strategy** G-4
Evaluate and expand LADWP Tree Planting Program's Pilot Private Property Planting Program. Track effectiveness of the pilot and consider expansion of the program strategically in areas within the City where canopy expansion is particularly challenging or dependent on private property interventions.	**Strategy** B-5

Recommended Strategies or Actions to Address in Current or Future Implementation Plans	Strategic Plan Connections
Assess the most effective ways to provide sufficient space for trees while also supporting increased housing within the City.	**Strategy** A-5
Evaluate current tree planting requirements for different development project types, including whether each requirement is being regularly utilized, is clear and feasible in the City's development process, and is being enforced.	**Strategy** B-5
Develop metrics and track the impact on canopy from the implementation of City Planning policies that impact tree planting and recommend adjustments as needed.	**Strategy** D-4
Consider most effective ways to improve enforcement of private property tree planting requirements to ensure trees are fully "installed" at the end of the establishment period.	**Strategy** B-5
Assess the best ways to support renters in having access to high quality urban canopy, provide recommendations to address challenges identified, and pilot solutions.	**Strategy** D-2

DRAFT

[This page left intentionally blank]

DRAFT

Chapter 7: Tree Maintenance

Tree maintenance includes all activities relevant to the maintenance of urban trees for their health and longevity in an urban setting. For the purposes of this document, maintenance activities are defined as those that begin when the establishment period ends and continue until the end of a tree's life.

Chapter 1, Section 1.3: Four Pillars of Urban Forest Management also includes a detailed overview of these activities.

Tree maintenance includes the following:

- **Proactive tree inspection and pruning**, which is essential for an urban tree in order to promote tree health and longevity and minimize risk to people and property.
  - **Inspection-based tree trimming** includes tree inspections, followed by pruning as needed. This should be done on a five to seven year cycle. Regular inspection for defects and potential risks, with routine pruning cycles that adhere to clear specifications and goals, allows the City to manage risk while supporting canopy increase through tree growth.
  - **Young tree structural pruning** is important as well-structured young trees often need less pruning throughout their lives. A strong young structural pruning program is cost efficient and reduces waste, as compared to a program focused solely on older trees.
- **Reactive maintenance** includes emergency response (such as downed trees and limbs during storm or wind events) and constituent requests (such as those received through the City's customer service request system for obstructed signs).
- **End of life planning** is important for reducing the risks posed by aging trees and includes activities such as tree removal, stump grinding, and wood reuse considerations.
- **Tree health care**, which includes:
  - **Detailed inspection and analysis by qualified arborists** for trees that require further evaluation after the inspection for regular pruning.
  - **Tree care during drought and water restrictions** which is critical in Los Angeles' climate and can prevent unnecessary tree loss during those times.
  - **Mulch** application and other efforts to improve or maintain healthy soil
  - **Pest management**, including the need for a plan and resources for quick response when pests or disease threaten tree health. This minimizes premature loss of trees through a planned and coordinated approach.

DRAFT

Mulch
The appropriate use of mulch is a low cost improvement that can be made to support healthy tree growth. Mulch is chipped woody plant matter and can aid in improving soil health, preventing erosion and compaction, reducing the occurrence of weeds, and assists in retaining soil moisture.

This chapter expands upon the topic and includes sections on community feedback on the topic, who funds and conducts tree maintenance within Los Angeles, and challenges and opportunities for achieving high-quality tree maintenance.

7.1 Why Maintain Trees?

Maintenance is crucial for urban trees. Many tree maintenance activities may not be required for a tree growing in a forest. However, for urban trees these activities are necessary to prevent conflict with other infrastructure and to minimize risks to targets (such as people or property) that could be harmed or damaged if struck by a falling limb or other tree failure. High-quality programs related to maintenance activities are essential to improve the health of trees, prevent damage to the tree and surrounding infrastructure, and extend the life of the City's urban forest, allowing trees to grow to their full potential.

It is also important to note that the level and quality of maintenance throughout a tree's life directly impacts its canopy increase potential. Trees currently in the ground, if healthy and well-maintained, have high immediate canopy expansion potential. It is therefore imperative to ensure trees receive regular maintenance throughout their lives. If trees within the urban forest are pruned poorly, the canopy expansion for all existing and newly planted trees is significantly reduced. If trees do not receive extra support during droughts and water restrictions they may die prematurely, resulting in a canopy loss.

Proactive tree maintenance of City-managed trees would allow the City to:

- Maintain consistent clearances from public infrastructure and facilities such as roadways, sidewalks and buildings.
- Reduce the City's liability and risk by removing limbs or trees presenting evidence of imminent failure.
- Decrease the number of emergency response requests during storm or wind events by reducing the likelihood of tree or branch failure during these events.
- Respond to new pests or diseases quickly and appropriately, limiting the spread of infestation and number of trees lost.
- Provide supplemental watering during times of drought to limit the number of trees lost.

— Increase the lifespan of trees, and therefore increase the total amount of essential ecosystem services and life-supporting benefits provided.

NEGATIVE IMPACTS OF DELAYED MAINTENANCE

Many urban forestry organizations and practitioners have experienced negative impacts caused by the City's pattern of deferred maintenance for trees. They share that community members are reluctant to support the planting of new trees. Community members indicate that they do not want new trees because they do not trust the City to provide adequate maintenance and are worried they'll end up responsible for long-term maintenance. Community members also have specific complaints around street sign visibility, obstruction of street lighting, and branch/limb or full tree failures during windstorms and other extreme weather events.

Overall, once someone has a negative experience with a tree, they are frequently less supportive of urban forestry projects. Many of these experiences that breed distrust could be avoided through proper, proactive inspection and maintenance. Trees are a multi-benefit public infrastructure asset that provides significant community benefits and protections. It is important that community experiences of trees do not undermine larger goals to cool and improve the health of the City's urban ecosystem.

7.2 Community Feedback on Tree Maintenance

See Chapter 1, Section 1.4: UFMP Community Engagement Campaign for more details on the engagement process.

Community feedback indicated that more trees and increased canopy are desired by Angelenos. At the same time, community members expressed their desire to see trees within the City properly maintained at regular intervals in the feedback received as part of the community engagement led by the UFMP's community partners.

In the online questionnaire, 61% of participants said the City should provide more "mature tree trimming and care of public trees." In the in-person workshops, participants discussed the need for skilled maintenance attention from professionals in order to reduce the risk of trees causing a problem within their neighborhood. Angelenos expressed a desire to increase funding for City staffing resources for maintenance.

Participants also noted that consistent care for park and street trees may lead to increased support for trees generally in communities, including as part of planting projects.

The public also frequently criticizes the City's lack of responsiveness, the appearance and health of the trees in their community, and the infrastructure conflicts they witness due to poorly maintained trees. The lack of enforcement of the City's policy and tree best practices is also of concern, involving property managers, construction crews, inexperienced or inexpensive landscapers, developers and others.

Some workshop participants expressed that some homeowners need assistance with the costs associated with tree trimming and other maintenance needs, including end of life removals. They noted that these costs may be infrequent, but can be substantial. Participants believed that trees are a benefit for the community because neighborhoods with large tree canopies create safe, walkable neighborhoods. In the online questionnaire, 36% of respondents said "providing support or resources for private property tree care" was an activity that was most important for the City to do more of.

Participants experience many landlords and property owners who unnecessarily overprune trees and remove the only shade available to them, particularly in low income and multi-family residential areas. Several anecdotes highlighted a lack of interest from landlords or property owners in paying for the cost of water or maintenance for trees and landscaping. These anecdotes noted that this cost concern frequently led to the removal of trees or decision not to plant new trees. There was a strong desire to develop partnerships between renters and landlords or owners, where the renters would be able to provide the on-site tree and landscaping maintenance with proper education, training, and clear standards.

These comments and feedback received regarding tree maintenance were also consistently heard in the engagement conducted for the City's 2025 Climate Vulnerability Assessment, the draft Health and Environmental Justice General Plan Element and the draft Open Space Element Update.

7.3 Who Maintains Trees?

Tree maintenance differs from tree planting and establishment care as City activities are solely funded via annual budget allocations to the Department of Public Works (Public Works) Bureau of Street Services (StreetsLA) Urban Forestry Division (UFD) or the Department of Recreation and Parks (RAP) Forestry Division (RAP Forestry). No state or

federal grant funding or alternative funding has historically been, or is currently, available for this type of tree management. Furthermore, this work cannot be augmented by volunteers as it is highly technical and requires the use of specialized equipment.

Street Trees

StreetsLA Urban Forestry Division

Historically, UFD resources for tree maintenance have been limited and sporadic, with all tree trimming work funded by the General Fund or discretionary fund allocations from Council Districts for specific locations. Currently, UFD conducts all tree trimming with city crews, but contractors have also been used in the past.

The limited funding levels result in overly long trim cycles. This not only causes the overall health and structure of tree assets to suffer, but is also problematic because the City pays more for the deferred maintenance through increased risk resulting in liability, claims, and higher occurrences of tree related emergency requests during and after storm and wind events.

Privately-hired Tree Care

The City also currently allows residents to obtain no-fee permits to perform tree trimming on street trees at their own expense, with UFD responsible for oversight of permitting. Ideally, these permits would include a post-inspection by UFD staff to ensure that work was performed to City standards, however, there is currently no capacity for such oversight. Additionally, limited capacity results in inadequate or inconsistent enforcement for residents or business owners who damage public trees through poor tree trimming, whether they have a City-issued permit or not. The City receives consistent and regular complaints about tree trimming done by individuals.

See Chapter 8, Section 8.3: How Are Trees Protected? for more details on the enforcement process for illegal street tree trimming or removal activities.

Park Trees

RAP Forestry is staffed to provide emergency response only. It does not have the capacity for proactive maintenance, including a trim cycle for park trees. Not all park trees require a trim cycle, as some are planted in areas that are not regularly accessed by park patrons or RAP staff. That being said, RAP Forestry also faces tremendous liability claims and payouts relative to tree or limb failure, which could be lessened by proactive tree maintenance activities.

DRAFT

This is reflected in the RAP Urban Forest Manual, which states that all pruning is done by request and as needs are identified by RAP staff. The manual notes that a pruning cycle in line with recommended best management practices would require additional staffing and funding levels, and is important to both "promote tree health while simultaneously enhancing public safety/decreasing liability and exposure."[15]

There is limited to no funding for tree maintenance around City facilities. See Chapter 3, Section 3.2 Managing the Urban Forest Across the City for further discussion on this topic.

Private Property Trees

The tree care needs of trees on private property are the sole responsibility of the property owner. Private property ownership varies, from individuals to nonprofit groups to companies. As such, who is providing tree care for these trees varies widely from property to property. Some property owners conduct tree trimming themselves or hire landscapers. Both situations result in work performed by individuals with varying levels of tree trimming experience and expertise. Other property owners hire larger, professional tree trimming companies, which also may have varying levels of expertise. Some property owners do not conduct any tree maintenance.

Regardless of who performs the work, typically tree trimming experts and non-experts can find themselves performing poor tree care practices as there is a lack of public understanding around tree biology and what trees actually need for health and safety. It is not uncommon for improper tree care to undermine the tree's health and structural stability.

Los Angeles Department of Water and Power (LADWP)

Line Clearance

The Los Angeles Department of Water and Power (LADWP) performs tree trimming for line clearance purposes for trees on both public and private property. LADWP's actions are focused on line clearance, rather than tree health care needs. Per the rules of the California Public Utilities Commission, LADWP performs regular line clearance on trees growing adjacent to powerlines focusing on directional pruning, natural target pruning, and drop crotch (reduction) cuts to achieve line clearance objectives. When this line clearance is performed, other pruning objectives like improved structure, removal of overextended and structurally unsound branches, or achieving roadway or pedestrian clearances are not addressed. The current practice of UFD is to permit only small stature street tree species under powerlines to largely avoid the need for line clearance, but large

[15] Department of Recreation and Parks Urban Forest Manual, p. 9

mature trees remain in many cases that have to be pruned regularly to maintain clearance from LADWP powerlines.

Water Operations Vegetation Management
LADWP performs both routine and emergency vegetation management around Water Operations facilities to support well-functioning water infrastructure systems, water distribution and quality, and flood protection. This includes reservoir properties, pump stations, potable water tanks, and drinking water treatment and service facilities. Maintenance can include a combination of vegetation management, such as brush, vegetation, and tree removal and/or tree trimming and sediment or debris removal. When this work includes protected tree species removals, LADWP Water Operations must coordinate with UFD, which can cause delays to implementing necessary vegetation management for water infrastructure.

See Chapter 8: Tree Preservation for more details on tree protections within the City.

7.4 Challenges and Opportunities for Tree Maintenance

It cannot be overstated that the recommendations in this chapter are related to preventing unnecessary or avoidable canopy loss. This section includes consideration of the following challenges and opportunities:

- Limited resources leading to reactive, rather than proactive, tree maintenance programs
- End of life planning
- Utility line clearance
- The need for a regional pest management program
- City policies governing tree maintenance
- Poor pruning by private entities and contractors
- The high cost of tree maintenance for property owners
- Tree care needs during drought and water restrictions

Reactive and Under-resourced Tree Maintenance Programs

It continues to be imperative that the City shift to a proactive approach to maintenance for City-managed trees. Not only do proactive maintenance programs provide better health outcomes for trees, but they also limit the amount of money the City spends as a result of liability claims.

The tremendous gap between industry best practices and the City's current resource allocation makes it particularly challenging to address the topic of tree maintenance and

provide industry-based recommendations for action and next steps for the City. In interviews with staff, there is a robust understanding of the kinds of activities they would like to plan and execute to achieve healthy, low-risk urban trees. Staff are both aware of missed opportunities due to resource shortages and are also often the City's representatives regularly receiving communications of frustration from the public.

Inspection-based Tree Trimming

Well-established guidance on best practices for pruning is provided by the American National Standards Institute (ANSI) in the A300 Tree Care Standards. Tree trimming is the careful removal of branches for specific, identified purposes. It is therefore most important to inspect all trees on a regular basis, with best practice recommending a five to seven year cycle. For trees where inspection identifies trimming needs, pruning should then be performed. In urban environments, pruning typically includes objectives like maintaining roadway clearances, addressing specific types of structural defects, or removing limbs that have evidence of damage or decay that are likely to fail and impact a **target**. For trees that are identified as dead or dying, or where risks of full tree failure are identified, tree removals should be performed.

Targets refers to people or things of value (such as cars, structures, and public infrastructure) that could be injured or damaged if impacted by a partial or full tree failure.

The first step towards implementing a proactive tree maintenance program, and the most important priority recommendation in this UFMP, would be adopting a five to seven year inspection and pruning cycle for all trees actively managed by City departments, including all street trees and park trees in areas that are publicly accessible. In the City's Fiscal Year 2026-27 Adopted Budget process, StreetsLA reported to City Council that the current pruning program was functioning on a 17-year cycle. RAP Forestry provides tree trimming on an emergency basis only. Proactive tree maintenance was recommended in the First Step report and has been repeatedly recommended by City staff, and matched in budget requests. Sufficient resources to achieve and maintain this strategy are critical for the City's tree canopy goals.

Addressing the current deferred backlog will require additional resources before the five to seven year inspection and pruning cycle can be established. As many of these City-managed trees have never been trimmed or have not been trimmed in decades, most will require some level of pruning to address clearance issues and structural defects. Trees that are identified as needing pruning should be trimmed in a timely manner following inspection. While the primary recommendation of this UFMP is to add additional crews in-house to achieve the maintenance needs of the City's park and street

trees, the City may need to add contractual tree trimming services for a period of time to address the backlog from deferred maintenance. The City may want to consider the process of addressing this backlog as a discrete capital improvement project, and fund it as such, rather than as ongoing routine maintenance.

Once the backlog of deferred maintenance has been addressed, the City can shift to maintaining staffing levels to allow for a regular inspection and pruning cycle for actively managed City tree assets. This should include consideration of young tree structural pruning, emergency response protocols, and park tree heritage programs, all of which should be incorporated into regular maintenance cycles for City-managed trees. City departments should continue to adopt and implement new advances in tree care as they arise. For this to be successful, City decision-makers must also provide support through resource allocations.

Good urban forest management looks to offset current risks, prevent future risks, and efficiently utilize limited resources. Cultivating this mindset and standard will position the City to adopt and implement a risk-based management approach in the future, particularly if the City-managed tree inventories are kept up to date through added staff capacity and training to update tree records within the tree inventory during trimming field work.

See Chapter 5, Section 5.2, Sub-section: Importance of Regularly Updating Inventories for more details on tree inventory and their updates.

Young Tree Structural Pruning

When there are limited resources for tree activities, young tree structural pruning is often not prioritized as young trees do not pose the greatest risk or liability to the City. Though young trees are pruned if they are in an area receiving grid trimming, focus is put on trimming larger trees that are more likely to create an immediate hazard. However, structurally pruning young trees is a beneficial investment that saves money over time and increases the longevity of the City's tree assets.

Unfortunately, the economic advantages of structural pruning for young trees is hard to see in the City's annual budget cycle. These investments would reduce costs in years far in the future, rather than providing budget offsets for the current fiscal year or even the upcoming fiscal years. Politically, this delay in return on investment means the cost savings and tree health impacts may be achieved when existing elected City officials are no longer in office. This means elected decision-makers may not prioritize the savings over spending with more immediately felt impacts or cost efficiencies.

If the City allocates resources to structurally prune young trees there are several benefits to the management of the City's maintenance programs:

- Young trees take less time and equipment to trim. The cuts are smaller, and less heavy equipment is needed, both in terms of the bucket truck and of pruning tools.
- Structural pruning cuts when the tree is small allow for smaller wounds to the tree, which are easier for it to compartmentalize and recover from, and present less risk for infection and disease.
- There is less green waste to dispose of than when an undesired branch is large.

There are a range of operational structures to address structural and regular pruning activities for street and park trees, from separate workstreams that function in tandem to a single unified pruning program. The best option may be different for UFD and RAP Forestry. One option would be to utilize specialized crew(s) responsible for providing structural pruning for young trees at appropriate intervals during the period following initial establishment care. This method ensures that all young trees receive the needed structural adjustments when they are still small. Another method would be to address maintenance needs for all trees on a block or in a park, regardless of size. This method requires that the inspection and pruning cycle is organized such that every block or park area receives inspection frequently enough to provide structural pruning to newly planted trees.

While different structures come with their own set of efficiencies and weaknesses, it is important to note that the skillsets, tools, and experience required for the two pruning regimens are distinct. This must be taken into consideration in the operational design to ensure the highest quality of pruning for public trees throughout their lives.

Emergency Tree Maintenance

Proactive tree maintenance programs drastically reduce the number of emergency tree maintenance needs, but do not fully eliminate them. Unexpected maintenance needs will continue to occasionally require attention. A larger number of incidents will occur after storm events, with downed trees and limbs needing to be addressed promptly.

Emergency tree maintenance is an area in which City departments currently excel. Best practices include a comprehensive system for receiving requests, assigning work, and tracking progress. For storms and other events that are expected to impact a larger number of trees, processes are in place to prepare and deploy staff quickly and efficiently.

DRAFT

Park Heritage Tree Program

In addition to a regular inspection and trim cycle, there is a proposal for redefining Heritage Trees in parks (see Appendix N). City parks are home to many unique and old specimens, which are an important part of the City's history and character. Within the consideration of the Heritage Tree program, RAP could adopt updated criteria for the Heritage Tree designation and provide resources and consideration of enhanced maintenance for these high value specimen trees.

Heritage Park Tree Highlight

On the original footprint of Griffith Park, there is a Sydney red gum (*Eucalyptus apocynifolia,* formerly *Angophora costata*) that is the national champion of this species.

Contractual Services for City Maintenance Programs

As mentioned above, the City may want to consider utilizing contractual services to address some maintenance of City-managed trees. While the UFMP strongly recommends that UFD and RAP Forestry maintain or increase their current crews of City staff, adding capacity for contractual service oversight may be necessary for addressing the backlog of deferred maintenance. Additionally, if City departments responsible for tree maintenance were to establish on-call lists for contractual services, these could be utilized in years with temporary higher City revenue to increase work accomplished in that year without creating additional City positions in future budget years.

End of Life Planning

A proactive tree maintenance plan must also include consideration of end of life planning, which includes actions such as tree removals, stump grinding, and wood reuse considerations. Urban trees are generally not able to die and decompose in place as trees in the forest do. This is true of all street trees and trees growing near buildings or other structures. Trees in large parks or other open spaces without active recreation access can sometimes be left in place as snags to continue supporting wildlife.

Inspection done as part of the five to seven year pruning cycle for trees, should include tree risk assessment that identify when trees are dead, dying, or have a high risk of major failure. This data can then be used to schedule tree removals activities. A well-funded, comprehensive management program also includes coordination between removal activities and plans for new tree plantings. This coordination should take into consideration both inspection data and known tree cohorts all planted at a single time, such as those planted as part of suburban development projects in the San Fernando

Valley. Proactive planting plans allow for new trees to begin growing before the older group of trees reach the end of their lives and require removal.

As trees are removed, consideration should be given to the best reuse option for the removed wood. Wood can be chipped into mulch, composted, cut for firewood, milled into lumber for structural building, furniture, or other crafts, or turned into biochar. Consideration must be given before removal begins for the appropriate wood reuse option. This ensures the removal cuts are done in a manner appropriate to the reuse option. For example, if wood is to be used for lumber it often must meet a minimum length to be used.

Tree removal activities must also coordinate with pest management work. As trees are removed, they must be checked for pest infestations. Trees with infestation should be disposed of properly, as recommended for that pest or disease, to limit the spread to other urban trees.

Utility Line Clearance and Tree Trimming

Utility line clearance is another area of public confusion and frustration. LADWP performs line clearance of trees growing under or adjacent to their power lines. This work is conducted by both LADWP in-house and contracted crews. Line clearance is a specialized field of utility work and does not address other elements of tree pruning maintenance. A robust assessment would be required if City-decision makers were interested in considering whether there is a pathway to combine line clearance and other LADWP clearance work with UFD and RAP Forestry's regular maintenance programs and understanding what, if any, efficiencies could be achieved by such a combined program.

There could also be an evaluation of whether street and park trees that require annual line clearance should be retained or removed with mitigation trees planted in a location without utility conflicts. If plans exist to underground powerlines in a certain area, tree removals should not be considered for those areas. However, if overhead lines are going to remain, it may be in the best interest of the City to develop criteria and a plan to slowly remove inappropriate tree species that conflict with powerlines. Many times, utility line clearance leaves trees with poor structure and always results in canopy reduction. These trees may have higher lifetime costs than benefits, when the cost of the line clearance, the emissions related to this maintenance activity, and the reduced health and services of the impacted trees are all considered. The goal with such a program would be to continue toward a sustainable, thoughtfully designed urban forest that uses public resources efficiently.

Develop a Pest Management Program

As living infrastructure, another element of tree maintenance and health care is addressing pests and diseases that impact trees. Urban trees typically grow in challenging conditions, which can make them more susceptible to pests and diseases. Trees in Los Angeles grow in a region where the movement of other goods through international trade regularly introduces new pests. Professionals and researchers that specialize in tree pests have reiterated to the Southern California community of arborists that one impact of climate change is an increased threat from pests and diseases, as the changing climate impacts components of the **disease triangle**. The altered environment presented by the changing climate has provided improved conditions for pathogens, such as increasing the amount of time during the year where pests can reproduce or even eliminating parts of the year where certain pests were previously dormant.

Disease Triangle of Plant Pathology

The disease triangle includes the following three items, all of which must be present in order for disease caused by a biotic agent to develop:

- Pathogen
- Susceptible host
- Hospitable environment

UFD does not currently have adopted policies and practices for addressing pest and disease issues in street trees. RAP Forestry has included a broad overview of how to utilize Integrated Pest Management strategies within their adopted RAP Forestry Manual.[16] At the time of a new infestation, UFD and RAP Forestry staff typically employ the strategies for which they have funding, which has been limited or nonexistent. More broadly, the City does not have protocols or resources for informing and educating the public when new pest and disease issues arise within the region.

Recent history provides a clear example of the challenges and potential canopy reductions the City will continue to face without developing and adopting strategies for addressing emergent pests and diseases and without adequately staffing City departments that manage trees. When the polyphagous shot hole borer first arrived in Los Angeles, already under-resourced city staff had to watch the pest quickly move through large stands of trees. In Betty Davis Picnic Area alone, 200 infested trees were structurally compromised and had to be removed, completely transforming a once shaded portion of the park. As demonstrated in this example, the City can either develop

[16] Department of Recreation and Parks Urban Forest Manual, p. 37

protocols and fund efforts to detect and address pests and disease early, or lose excessive numbers of trees and pay for removal, green waste disposal, and replacement.

OFM did not exist at that time and is now well-positioned to play a convening and advising role for the City when new pests and disease appear. However, the City departments that manage tree assets also continue to need additional capacity to participate in planning appropriate strategies, developing and conducting timely staff training, inspecting and addressing infested trees, and managing and overseeing potentially necessary contracts to address pest and disease issues.

Staff have also shared that there are sometimes challenges translating recommendations for controlling the spread of emergent pests and disease. For example, it is nearly impossible to chip and solarize heavily infested street trees "on site," as recommended for invasive shot-hole borer pests. UFD staff cannot leave a pile of tarped mulch on a city street. UFD and RAP Forestry need staff capacity to review and adapt scientific recommendations for the street and park tree context, and further resources must be available to implement these strategies, sometimes rapidly, to prevent the widespread loss of trees.

In addition to gaps in the City's resources for directly managing pests and disease, the City also lacks processes and guidance for Angelenos. Currently, if a neighborhood group or individual property owner wants to treat a street tree or group of trees with evidence of a pest or disease, there are no permitting mechanisms or protocols to allow or advise that activity. Clear standards or approaches for pest and disease management should be included in the Street Tree Manual and new permitting mechanisms developed to guide this activity and allow for residents to contribute to tree health and pest management.

The Los Angeles County Chief Sustainability Office (CSO) and Los Angeles County Fire Department have already begun leading an effort in this area for some pests, such as the gold-spotted oak borer. The Los Angeles County Agricultural Commissioner / Weights & Measures also has technical capacity to support the issue of pest management. This includes testing of plant material and inspection of new sites with potential evidence of pest or disease. Through the development of the City's UFMP and the County's Community Forest Management Plan (adopted October 2024), there has been significant discussion between OFM and the CSO around opportunities for regional leadership and resource sharing. The trees managed by the City and Los Angeles County face similar conditions and will be threatened by the same pests and diseases. This partnership should be further expanded and leveraged to develop strategies and protocols for public

education and early detection of pests and more broadly to support the regional management of pests and diseases that impact trees.

Policies Governing City-managed Tree Maintenance Programs

The land use surrounding a tree results in different contexts, targets, and needs for tree maintenance programs. As such, City departments responsible for tree maintenance should have established and documented standard details, guidelines, and policies for street and park tree maintenance.

A common best management practice is to create Urban Forest Manuals, detailing each department's policies and implementation practices. This includes an overview of how each department implements external best management practices and guidelines, such as the International Society of Arboriculture (ISA) or ANSI A300 and Z133 guidelines that address both tree health and worker safety. This also includes explanation of any standard plans or guidelines maintained by the specific City department.

UFD and RAP Forestry are the City departments responsible for tree maintenance programs for street and park trees, the largest groups of City-managed trees. RAP Forestry's Urban Forest Manual documents the priorities and approach to tree maintenance in City parks. UFD does not currently have such a Manual for street trees but does have a variety of public facing standards. There is a benefit to publicly documenting how each City department responsible for maintaining tree assets interprets and utilizes standards.

The development of the Manuals could also include creating pruning specifications for various types of pruning. Examples of pruning jobs that might benefit from developed pruning specifications are species-specific considerations, street typology, heritage trees, or clearance from recreation facilities. These specifications would also allow the Departments to be better prepared to contract out components of tree work, if it is deemed necessary or is beneficial for expanding capacity in a budget year where there are additional resources.

Poor Pruning by Private Entities and Contractors

Currently street trees and trees on private property may receive maintenance from privately hired contractors. These contractors have varying levels of tree trimming experience and expertise and are often prioritizing their work in response to direction from their clients or expediency. Experts and non-experts can find themselves performing

poor tree care practices to achieve client goals, such as the practice of topping or lion-tailing trees.

Broad public education on tree care basics is therefore important (see Chapter 9 for more detail). This should include educating residents that tree trimming in urban areas is used to achieve clearances and remove potential hazards. It should also inform the public of the negative long-term impacts to tree health and public safety of inappropriate practices. The practice of topping or performing uniform heading cuts permanently damages tree structure, impacts overall canopy benefits from the tree, and creates greater risk both in terms of structure and weak branch attachments as well as increased susceptibility to pests and disease.

Street Trees and No-Fee Pruning Permits

The City currently allows residents and businesses to obtain no-fee permits for pruning street trees. Because UFD does not have any cost recovery for oversight staff time through fee collection, the current process results in permitted tree trimming that lacks sufficient oversight. While no-fee permits may increase trimming activity by private entities, in many cases street trees are not being pruned to City standards. Implementing a permit fee for street tree trimming would support additional oversight of tree trimming permits. Adopting a five to seven year trim cycle would also reduce or eliminate the need for such permits.

Parking Lots

A specific land use type that is particularly problematic when it comes to poor tree trimming practices is paved parking lots. The City has standards related to parking lot shading, but when the Environmental Affairs Department was dissolved in the Fiscal Year 2010-11 Adopted Budget the capacity to provide oversight and enforcement disappeared. Parking lots typically represent large paved areas that contribute significantly to urban heat island. These areas should be designed and maintained to be covered by tree canopy. This extends the life of the paved surface, reduces emissions from parked cars, reduces the heat burden from the paved surface on the surrounding area, and creates a more pleasant and comfortable environment for users of the space.

There is currently a culture or habit of trimming these trees back annually, resulting in a canopy that does not provide shade to the parking lot. Where trees are irrigated, this results in water being used to grow biomass in the form of tree limbs and leaves, only to be removed and disposed of annually as green waste or landfill material. In a region where water is a limited resource, this is wasteful. Trees in parking lots should grow with natural tree form and structure, as well as have their grow spaces designed to infiltrate

parking lot runoff. Consolidated planting spaces should be utilized to allow for efficient irrigation and large tree species. Design should be aligned with providing shade and ecosystem function, rather than design that achieves a certain number of trees or specific decorative or aesthetic quality. Regular inspection for potential tree or limb failure is necessary, but annual trimming that removes most of the tree canopy is not. Enforcement or incentive options could be considered for locations that have engaged in this unfortunate practice.

Billboards

Billboards exist throughout the City and are a regular source for complaints of inappropriate tree trimming. Companies will top or remove trees that block their revenue-generating signs, with at least one of the companies maintaining their own tree trimming group on staff. These trees are sometimes trimmed with a permit and sometimes without a permit. Even with a permit, this type of trimming is disallowed by the terms of the City-issued permit. These illegal acts permanently damage the tree's structure and remove shade provided by the tree, both of which are harmful to the surrounding community.

The current methods for deterring this type of activity have not been successful. The City should revisit how it regulates or allows billboards, update its fine structure for inappropriate tree trimming, or find other methods to address this pervasive issue. Billboards are currently permitted through a one-time fee. The City could consider adopting a policy to revise the City's Building and/or Zoning Code to prevent tree topping within a block of a sign. Other approaches could also be explored, such as a holistic plan for removing trees that will grow to obstruct billboards paired with payment to the billboard permit holder to purchase and develop other public spaces with large canopy species as a community asset.

Residential Areas

Property owners and managers frequently hire inexperienced landscapers to perform tree work within their private property. These landscapers may be less expensive than hiring a qualified arborist, but the cost in terms of reduced canopy and poor structure, impacting the cooling and electricity savings functions, and increasing potential risk from trees, is a high price to pay. Many residents are not aware of these tradeoffs or the harm caused by unqualified landscapers trimming trees.

While the City does not have direct jurisdiction over how all trees on private property are maintained, the City should provide broad public education on the importance of good tree care as these trees provide a public benefit. The City could also consider certification

programs to acknowledge companies or individuals that have the ability, knowledge, and adherence to standards for tree care to provide residents with information on the types of companies or individuals to hire. This could follow the model used by Los Angeles City Planning (City Planning) for consultants providing review of biological resources.

Finally, it is recommended that the City consider certain criteria or metrics for shading different land use types, as these canopy targets could be used to incentivize and enforce proper tree care. It should be noted that the Landscape and Site Design Ordinance (LSDO) improves the City's current practice by requiring inclusion of Landscape Maintenance Plans in the covenant agreements developed for projects that are required to comply with it. It will be important for OFM and City Planning to monitor the effectiveness of this policy as it is utilized. As the LSDO does not cover all private property trees, future policy development should seek to match these requirements as a best practice.

High Costs of Tree Maintenance for Property Owners

Different but related to the issue of poor pruning, is the on-going concern of the ability of private property owners and managers to pay for long-term high-quality tree maintenance. In order to provide environmental benefits, trees require a certain level of care that residents rarely consider or include in their budgets. This emphasizes the need for both public education and support. The City should also consider the development of a program for low-income homeowners and families, similar to the County's low-income senior handyman program. Other cities, such as Chicago and Orlando, have piloted a Treesilience program that aids residents in addressing tree maintenance and removal on private property. The City should consider developing and implementing such a program, as trees remain an asset that provides benefits beyond property lines and contributes to regional cooling, ecosystem health, and overall resilience.

Tree Care During Drought and Water Restrictions

Cycles of drought are inherent in the region and are predicted to become more severe and prolonged. During periods of drought, there are two main risks to trees. The first is a reduction in naturally available water and the second is a reduction in irrigation watering as water restrictions are enacted.

Prolonged dry periods can cause stress to trees, which can make them more susceptible to pests and disease. Trees are important during rain events as they assist with the process of slowing, spreading, and sinking stormwater, improve soil structure and ability to absorb rainfall, and can help prevent flooding. Providing trees with a limited and

strategic amount of water during drought conditions will have a high return on investment, even if only considered from the stormwater management perspective.

In order to successfully promote public understanding and deploy messages to Angelenos to provide supplemental water to trees during drought and water restrictions, the City must have a plan and clear materials. This is an area that the City should continue to consider, test strategies, and monitor outcomes. Typically, residents become concerned about tree death in times of prolonged drought, so the City having a proactive strategy that evolves over time will be essential to the success of the urban forest.

When Southern California or the full state experiences a period of drought, there are typically water restrictions issued from state or local agencies. Implementation of water restrictions that are broad, arbitrary, applied across land use types, and not developed in consultation with landscape managers has a detrimental impact on the urban forest. Unfortunately, the impacts of these restrictions are not seen immediately, as trees decline over time, ranging from months to years. Sometimes, by the time visible evidence is available, the tree has already suffered irreversible damage. It is important to note that the last major drought included improved public communication and options for retaining trees during the water restrictions in Southern California. Such improvements should continue and be expanded to have a clear approach for reducing water use, while exempting and caring for trees as long term assets and public health safeguards.

WATER RESTRICTIONS CAN HARM EVEN LOW-WATER USE TREE SPECIES

Low water use trees have been preferred or required for some time. However, trees grow in response to the water resources available to them. Meaning even low water use trees will become stressed, decline, or die if the water sources that they are used to are altered. Hopefully, as more landscapes convert to low water use and locally-native landscapes, there will be fewer instances where the water restrictions imposed in drought cause unintended tree decline. Regardless, it is important to communicate to the public and large land managers that if they alter the water being provided to their landscapes, they should plan for supplemental water for their trees to prevent damage or death.

DRAFT

Chapter 7 Summary of Recommendations

Recommended Strategies or Actions to Address in Current or Future Implementation Plans	Strategic Plan Connections
Reactive and Under-resourced Tree Maintenance Programs	
Assess the best method for developing a budget process that considers the long-term nature and impacts of urban forestry work. This should include consideration of efficiencies and cost-savings gained through proactive, inspection-based tree maintenance programs and contract processes needed to address multi-year urban forestry costs, such as contract-grow contracts. (See also Chapter 3: History and Governance of Trees in Los Angeles and Chapter 6: Tree Planting and Establishment Care)	**Strategy** G-5
Increase funding for UFD for tree maintenance to increase City crews or to fund contractual work for the City's street tree maintenance program, including inspection and tree trimming.	**Strategy** G-4
Increase funding for RAP Forestry for tree maintenance to increase City crews or to fund contractual work for the City's park tree maintenance program, including inspection and tree trimming.	**Strategy** G-4
Utilize and refine existing assessments to create an action plan for achieving a 5-7 year tree trimming inspection schedule. Begin implementing the established action plan, while continuing to maintain capacity for responding to emergency tree requests.	**Strategy** C-1
Address the existing backlog of tree trimming maintenance for City-managed trees, consider utilizing contracts to reduce this backlog over a defined period of time.	**Strategy** C-1
Assess options for providing young tree structural pruning for street trees and enact the most cost-effective method.	**Strategy** C-2
Update Heritage Tree definition and recommendations for park trees, allocate resources for enhanced maintenance for Park Heritage Trees.	**Strategy** C-6
Continue to assess and update tree maintenance protocols based on new best management practices.	**Strategy** C-2
Develop and adopt a risk-based management plan for street, park, and other City-managed trees to establish a risk tolerance framework that includes clear definitions around acceptable and unacceptable risk and creates decision trees for use by City departments. (See also Chapter 8: Tree Preservation)	**Strategy** E-8
Continue comprehensive emergency response programs for street and park trees. Assess the best methods for creating emergency response programs for other City-managed trees, such as those around City facilities.	**Strategy** C-2
Pursue creation of contractual on-call lists for tree related work, including technical, engagement, trimming, removal, pest management, and planting/watering work.	**Strategy** E-5
End of Life Planning	
Incorporate end of life planning into a tree management program utilizing regular inspection data and defined removal criteria to address removals as needed, such as for stumps and trees that are dead, dying, or at risk of failure. Coordinate removal planning with tree planting planning.	**Strategy** C-2
Evaluate challenges and opportunities to increase wood reuse by developing contracts and agreements with private companies and/or creating internal capacity for milling.	**Strategy** E-10

DRAFT

Recommended Strategies or Actions to Address in Current or Future Implementation Plans	Strategic Plan Connections
Ensure proper disposal of wood with pest infestations for all City departments responsible for tree assets.	**Strategy** C-2
Utility Line Clearance and Tree Trimming	
Consider conducting a robust assessment to determine whether there is a pathway and/or desire to combine line and other LADWP clearance work with regular maintenance tree trimming objectives for street and park trees.	**Strategy** C-2
Consider development of a standard operating procedure, policy, or MOU between UFD and LADWP to improve and expedite pathways for maintaining LADWP infrastructure when street or protected trees are present.	**Strategy** C-8
Consider development of criteria and a comprehensive plan to retain or remove, redesign, and replace City-managed trees that require annual line clearance.	**Strategy** C-2
Develop a Pest Management Program	
Develop an Integrated Pest Management Framework that includes policies, permits, and procedures for pest management strategies for known pests/diseases, an action plan and protocol for rapid response to new and emergent pests/diseases, and a process for informing and educating the public when new pest/disease issues arise within the region.	**Strategy** E-9
Consider funding increases to support needed additional capacity to address pest and disease issues, such as planning appropriate strategies, developing and conducting timely staff training, inspecting, addressing, and monitoring infested trees, managing data tracking, and managing and overseeing any necessary contracts with the ultimate goal of preventing premature tree loss or large urban forest reductions. Ensure sufficient staff capacity is allocated to review and adapt scientific recommendations for the street and park tree context.	**Strategy** E-9
Assess protocols and develop mechanisms to allow Angelenos to support pest management through street tree treatment or removal in response to pest infestations.	**Strategy** E-9
Expand partnership with LA County to develop strategies and protocols for public education and early detection of pests and more broadly to support the regional management of pests and diseases that impact trees.	**Strategy** F-1
Policies Governing City-managed Tree Maintenance Programs	
Complete and Adopt a Street Tree Manual to document UFD's policies and processes for oversight and management of the City's street tree assets, including those related to tree trimming and other maintenance activities. (See also Chapter 6: Tree Planting and Establishment Care and Chapter 8: Tree Preservation)	**Strategy** E-6
Continue to adopt updated versions of the RAP Urban Forest Manual as updates are needed for tree trimming and maintenance. (See also Chapter 6: Tree Planting and Establishment Care and Chapter 8: Tree Preservation)	**Strategy** E-6
Create and adopt Urban Forest Manuals for City departments other than UFD and RAP Forestry responsible for tree assets. This may include GSD, LAWA, the Los Angeles Harbor Department, and LADWP. (See also Chapter 6: Tree Planting and Establishment Care and Chapter 8: Tree Preservation)	**Strategy** E-6

DRAFT

Recommended Strategies or Actions to Address in Current or Future Implementation Plans	Strategic Plan Connections
Develop and regularly update Pruning Specifications for all City-managed trees and for various types of pruning, such as species-specific considerations, street typology, Heritage trees, or clearance of recreation facilities.	**Strategy** E-1
Poor Pruning by Private Entities and Contractors	
Increase funding for additional oversight of street tree trimming permits and for enforcement capacity to inform the public and deter bad actors. Increase UFD staffing to support tree trimming permit oversight and to provide enforcement for inappropriate tree trimming.	**Strategy** G-4
Conduct research and pursue development and implementation of policies and programs to prevent improper pruning of street and private property trees - explore deterrence, incentives, and education.	**Strategy** C-4
Consider best ways to ensure parking lot trees grow to their full expected canopy, including consideration of enforcement-focused options and incentives.	**Strategy** C-4
Assess how the City regulates and permits billboards in relation to improper tree trimming activities. Consider updating the fine structure for inappropriate tree trimming, or find other methods to address the issue of poor pruning to increase billboard visibility such as revising City code.	**Strategy** C-4
Conduct public education campaigns focused on maximizing individual tree health and overall urban forest health. This may include topics such as best management practices for tree health, proper tree trimming and importance of arborists as technical expertise, how to water trees during drought and times of water restrictions, and how to support enforcement of tree protections (such as how to report illegal removals and/or trimming). This should include education campaigns focused on different audiences, such land owners, renters, landscape professionals. (See also Chapter 9: Community Engagement and Public Education)	**Strategy** F-6
Consider creating certification programs or list of approved contractors to acknowledge companies or individuals that have the ability, knowledge, and adherence to standards for tree care.	**Strategy** C-3
If canopy standards are set for different land use types, assess the best policy to enforce and incentivize meeting those targets, including strategies to support proper tree trimming practices for different tree types (such as street and private property).	**Strategy** A-5
High Costs of Tree Maintenance for Property Owners	
Explore and develop programs to support private property tree care, with an emphasis on supporting high-quality standard of care for low-income homeowners and families (similar to the County's low-income senior handyman program).	**Strategy** C-7
Promote collaboration between relevant City departments and outside partners to support funding for private property tree care and risk management programs.	**Strategy** C-7
Tree Care During Drought and Water Restrictions	
Promote public understanding and deploy messages to Angelenos on the need to provide supplemental water to trees during times of drought. Coordinate with water agencies to limit tree decline and death due to water restrictions by ensuring that both the water restriction policies and messaging to the public ensures tree health and longevity.	**Strategy** C-5

Recommended Strategies or Actions to Address in Current or Future Implementation Plans	Strategic Plan Connections
Invest in updated irrigation systems in City parks and prepare to deploy watering crews to address the need to water park trees during periods of water restrictions.	**Strategy** C-5
Assess and pursue development of or updates to drought response policies and protocols for all City departments responsible for managing trees.	**Strategy** C-5

DRAFT

[This page left intentionally blank]

DRAFT

Chapter 8: Tree Preservation

Tree preservation aims to keep existing trees in place in order to conserve canopy and urban forest health, and includes the following two strategies:

- **Tree retention** includes activities related to keeping trees in place, usually when development or capital improvement activities are occurring in the trees' vicinity. This includes activities such as **regulating certain trees** to require a permit from the City for legal removal, including City-managed trees and certain private property trees.
- **Tree protection** includes activities that ensure existing and retained trees' roots and branches are not damaged when other work is occurring nearby. This includes activities such as requiring and enforcing **tree protection zones (TPZ)** to keep work and construction storage away from trees.

Creating a successful tree preservation program includes not only clear criteria for retention and requirements for protections, but also strong enforcement, incentives, and community engagement and education. Clearly defined, objective criteria detailing when trees are retained or removed helps City staff and external stakeholders to have clear expectations. In some cases, tree retention may only be possible with adjusted or improved designs for development projects or the built public right-of-way environment that accommodate sufficient growing space. It is therefore important to include tree considerations during the design process with arborist consultations, as appropriate, early on.

Chapter 1, Section 1.3: Four Pillars of Urban Forest Management also includes a detailed overview of these activities.

Types of Regulated Trees

Protected tree - any tree protected by City ordinance due to its species and size (see Section 8.3, Sub-section: Private Property Trees for species and size specifications).
Protected shrub - any shrub protected by City ordinance due to its species and size (see Section 8.3, Sub-section: Private Property Trees for species and size specifications).
Significant tree - a tree of any species that meets a specified size for protection via City policy (see Section 8.3, Sub-section: Private Property Trees for more details).
Heritage tree - an individual park tree of any size or species that is specially designated as heritage because of its historical, commemorative, or horticultural significance.

Tree Protection Zone (TPZ) - an area established around tree(s) to protect the branches, trunk, and roots from construction, grading, or other development activities.

8.1 Why Preserve Trees?

Existing trees within our urban landscape provide essential ecosystem services and life-supporting benefits to the people and animals that live, work, and play within the City. Additionally these trees, if retained and allowed to continue to grow, provide some of the greatest opportunities for immediate canopy expansion. While there are sometimes unavoidable reasons why existing trees must be removed, it is important to ensure trees are preserved in place whenever possible in order to protect and expand the City's urban canopy.

Strong tree preservation and protection policies are important and include consideration of the different policies that apply to street, park, or private property trees. Mature trees provide a large portion of environmental and community benefits, and their loss can significantly undermine canopy expansion goals and further expand inequities. Comprehensive tree preservation ordinances, clear removal and replacement standards, strong valuation processes, and meaningful enforcement mechanisms are necessary to safeguard existing canopy, particularly in neighborhoods with limited tree cover.

CANOPY EXPANSION IMPACT

The greatest and most immediate canopy losses come when healthy, mature trees are removed. Not only is the existing canopy lost, but future canopy growth is also halted. This is especially impactful as older, larger trees generally provide more canopy increase each year as compared to smaller, younger trees.

Tree planting requirements designed to replace the lost canopy of removed trees are often insufficient. While a static 2:1 or 4:1 planting requirement in some cases may eventually result in equal or greater canopy, it takes decades to occur as the new trees grow. More frequently, the constrained urban environment results in smaller species being planted as replacements, meaning the canopy lost is never fully recovered. To ensure canopy replacement in both the near and long term, required planting ratios would need to be based on the removed tree's species and canopy width or trunk diameter.

DRAFT

8.2 Community Feedback on Tree Preservation

See Chapter 1, Section 1.4: UFMP Community Engagement Campaign for more details on the engagement process.

The feedback received as part of the community engagement led by the UFMP's community partners included concerns about trees being removed prematurely. A theme in the feedback was the importance of trees as a collective benefit for the greater community. The preservation of these collective benefits increased the desire to protect trees, with a higher emphasis on protecting those in public spaces. In response to the question "Which of these activities are most important for the City to do more of?" in the online questionnaire, 62% of participants said "keeping and protecting street and park trees" and 34% said "keeping and protecting trees on private property."

In the in-person workshops, participants expressed that tree preservation was needed throughout their communities. This included private property trees in yards and in parking lots, street trees in front of businesses and in commercial districts, and on school campuses. Participants reflected the need to review and update the City's policies related to tree protections, including policies related to removal permits and replacement requirements. Several participants discussed specific incidents of large, established shade trees in the public rights-of-way being vandalized, cut down, or set on fire.

These comments and feedback received regarding tree maintenance were also consistently heard in the engagement conducted for the City's 2025 Climate Vulnerability Assessment, the draft Health and Environmental Justice General Plan Element and the draft Open Space Element Update.

8.3 How Are Trees Protected?

Trees with protected status require approval from the City in order for them to be legally removed. Issuance of permits for tree removals and enforcement for non-compliance are overseen by many different City entities depending on where the tree is located, including:

- Department of Public Works (Public Works)
    - Board of Public Works (BPW)
    - Bureau of Street Services (StreetsLA) Executive Director and General Manager
    - StreetsLA Urban Forestry Division (UFD) Chief Forester/Division Manager
    - StreetsLA Investigation and Enforcement Division (IED)

- Department of Recreation and Parks (RAP)
  - RAP Board of Commissioners
  - RAP General Manager
  - RAP Forestry Division (RAP Forestry) Principal Forester/Division Manager
- Los Angeles City Planning (City Planning) Advisory Agency

This section describes the current City policies and processes for protected trees, but does not include recommendations for changes. Further consideration of known issues and recommendations for updates are discussed in Section 8.4.

Street Trees

All street trees are managed by Public Works and are considered protected, meaning review from the City is required for all removal requests and a permit is required for tree removal. The BPW oversees all street trees and delegates authority for the UFD Chief Forester/Division Manager within StreetsLA to issue permits or deny requests for street tree removals in certain instances as defined by BPW policy. Some street trees have a second layer of protection through designation as Historic-Cultural Monuments. The section below details the policies for governing street tree removals, including replacement requirements and enforcement mechanisms.

Street Tree Removal Policy

For all street tree removal requests, UFD staff review the information submitted and provide a recommendation for approval or denial. The number of trees requested for removal impacts whether the UFD Chief Forester/Division Manager or the BPW is the final entity providing either permit issuance or denial. When BPW is the deciding entity, a public hearing and increased public notices are required. BPW policy sets this threshold and the required public notification process. In June 2015 the BPW approved the Street Tree Removal Permit and Tree Replacement Policies to codify existing practices within UFD. In September 2026, StreetsLA presented potential updates to this policy to the BPW for consideration.

See Appendix O for the 2015 Street Tree Removal Permit and Tree Replacement Policies, which details when cases are decided at the staff level versus in a BPW public hearing and states public notification requirements.

While the Street Tree Removal Permit and Tree Replacement Policies included a description of some of the reasons that tree removals are approved, it did not create formal criteria that allow or disallow street tree removals. The report stated that "there are reasons that street tree removal permits may be considered that include damage to City infrastructure or private structures/buildings, construction of a vital City facility,

installation of vital new streets and other public ROW [right-of-way] improvements, capital improvement projects, and the structural integrity/condition of a tree." Staff within UFD have, over the years, attempted to make clearer for residents the reasons why street trees are approved for removal. However, the City does not currently have clearly documented and publicly accessible objective criteria for when removal requests are approved or denied. Because the public right-of-way includes activities and assets from many different City and outside entities, it is important to have a clear understanding of what criteria guide decision-making for when street trees are removed or retained.

With support from the BPW, UFD staff have limited the removal of street trees for temporary activities like staging construction materials or cranes (BPW-2021-0326). UFD has also engaged in significant coordination with City Planning and the Public Works Bureau of Engineering (BOE) to reduce the number of trees removed for street widening as part of development projects.

Street Tree Replacement Policies

The LAMC states that the BPW "may require, as a condition to any permit to remove or destroy a tree, that the permittee plant another tree of the type and size specified in the permit, within forty (40) days from the date of the issuance of the permit" (LAMC 62.170). In June 2015, the BPW adopted the Street Tree Removal Permit and Tree Replacement Policies to codify existing practices within UFD. As a removal permit condition of this policy, a 2:1 planting for every approved street tree removal is required, regardless of tree species or size, and a minimum of three years of watering and establishment care.

See Appendix O for the 2015 Street Tree Removal Permit and Tree Replacement Policies, which details the replacement and other requirements for approved street tree removals.

Enforcement of Noncompliance with Existing Policies

StreetsLA is responsible for the enforcement of all street tree violations, including unpermitted street tree trimming or removals. The enforcement process operates through three distinct pathways depending on the violator's cooperation and the circumstances of the violation:

- **UFD-only pathway:** UFD issues a Notice to Comply (NTC) directly to the property owner to resolve the violation and secure tree replacements if the violator admits fault and agrees to terms, avoiding formal legal proceedings. The NTC outlines required compliance actions and sets a deadline (typically 10 to 45 days). If a tree was removed or damaged beyond repair, current compliance mandates planting at a 2:1 ratio (or paying into the Guarantee Tree Fee Fund if the site cannot accommodate the required trees).

- **Joint escalation pathway:** If there is no admission of fault with the initial NTC, the matter is referred to StreetsLA's Investigation and Enforcement Division (IED) to investigate. An informal administrative "office conference" is held with an IED hearing officer, UFD staff, and the property owner. During the hearing, the property owner may admit fault and agree to the NTC requirements, or IED may issue an Administrative Citations Enforcement (ACE) citation. UFD and IED confer and either require compliance with tree replacement or issue an ACE citation.
- **IED-only pathway:** If IED observes a violation during monitoring of the public right-of-way and exigent circumstances exist, IED may directly intervene without involving ACE. Depending on whether the violator possesses valid identification, IED may issue a Notice to Appear or physically book the violator. IED only provides enforcement for violations within the public right-of-way and has no jurisdiction on private property. This pathway does not result in tree replacements. For IED to serve as the initial responder while still securing tree replacements, the replacement policy would need to be codified into the ACE or criminal procedures.

Enforcement has proven to be difficult through these pathways. Pursuant to California law, pursuing criminal enforcement of a misdemeanor requires the violation to be committed in the presence of a City officer. Accordingly, if UFD or IED staff are not present during the violation, IED will not move forward with enforcement. In addition, IED will not move forward if it determines during the office conference that there is insufficient evidence to enforce.

Park Trees

All trees in parks are managed by RAP Forestry and are considered protected. There are four categories of protected tree defined in the RAP Urban Forest Manual Tree Preservation Policy[17] that each have different restrictions on trimming or removal. This includes the following categories:

- **Protected by City ordinance** due to species and/or size
- **Heritage tree** specially designated by RAP due to historical, commemorative, or horticultural significance
- **Special Habitat Value tree or shrub** defined by RAP based on species
  This includes, but is not limited to: California sycamore *(Platanus racemosa*), California bay (*Umbellularia californica*), boxelder (*Acer negundo 'Californica'*), big leaf maple (*Acer macrophyllum*), California walnuts (*Juglans californica* and *Juglans hindsii*), toyon (*Heteromeles arbutifolia*), native cherry trees (*Prunus ilicifolia*, *Prunus lyonii*), cottonwood

[17] Department of Recreation and Parks Urban Forest Manual, Appendix A

(*Populus fremontii*, *Populus trichocarpa*), and native willow trees (*Salix hindsiana*, *Salix laevigata*, *Salix lasiandra*, *Salix lasiolepis*)

- **Common park trees**, which includes all other park trees

Park Tree Removal Policy

All tree removals considerations begin with assessment and recommendation provided by a RAP arborist. Trees protected by City ordinance must be approved for removal by the RAP Board of Commissioners, Heritage and Special Habitat Value trees must be approved for removal by the RAP General Manager or designee, and common park trees must be approved for removal by the RAP Forestry Division Manager. The Manual details an exception that allows RAP Forestry staff the discretion to conduct emergency tree removal if a park tree of any category poses an immediate threat to life or public safety.

The tree removal procedure is detailed in the RAP Urban Forest Manual[18] alongside the criteria for approving tree removal. It states:

> A tree in a city park may be removed for the following reasons: (1) if it is dead or dying, (2) if it has a pest or pathogen that cannot be feasibly treated, (3) if it is irreparably damaged or injured to the extent that is likely to die or become diseased, or (4) it is determined to pose an unacceptable risk to public safety. Nuisance trees are also removed when any part of the tree causes or is about to cause impairment of City operations (including recreation) or damage to buildings, hardscape, or permanent infrastructure lines that cannot be relocated and, in the opinion of the RAP arborist, pruning will too severely compromise the tree's structure.[19]

RAP has a defined protocol for public notification if a large-scale tree removal is approved.[20] This includes communication protocol within RAP, informing the appropriate Council Office and Park Advisory Board, and posting a notice of "intent to remove trees" in the park.

Park Tree Replacement Policy

If healthy trees are removed or damaged, the RAP policy requires a replacement of trees using the aggregate caliper method. This method requires measuring the diameter at standard height (DSH) of the tree to be removed and planting enough trees to immediately match the diameter of the removed tree. The policy details that if the planting of the required replacement trees is not feasible within the park or nearby parks, the project may be modified or redesigned to preserve trees.

[18] Department of Recreation and Parks Urban Forest Manual, Appendix F
[19] Department of Recreation and Parks Urban Forest Manual, p. 55
[20] Department of Recreation and Parks Urban Forest Manual, Appendix G

Planning for Park Tree Retention and Protection

Construction projects within parks, either for repair of existing facilities or building new facilities, pose the most frequent threat to park trees. To that end, the RAP Urban Forest Manual includes chapters and appendices that address tree preservation and emphasize the need for planning and tree protection before, during, and after construction projects. This includes detailed Tree Protection Specifications[21] and a Monthly Tree Activity Report[22] intended to ensure tree protection measures remain in place and tree health and condition are monitored for the duration of the project.

RAP Forestry staff have a practice of conducting field meetings during the conceptual stage for capital improvement projects. At these meetings projects scope and needs are discussed alongside tree assessments and retention considerations. RAP Forestry staff work to continue coordination for tree retention and protection throughout project installation. This includes support and coordination with contractors for work occurring within the TPZ to utilize hand tools, air spades, or tunneling to not damage tree roots.

Enforcement of Noncompliance with Existing Policies

If there is damage or removal of a tree that was not approved, the RAP Urban Forest Manual details the consequences for both contractors and RAP staff.[23] The contractor that caused the damage or removed the tree is required to install replacement tree(s) that replaces the tree(s) lost, or if that is infeasible, pay RAP Forestry for the value of the tree(s) lost. If a tree is damaged due to a decision, action, or negligence of an employee, that employee may receive disciplinary action.

Private Property Trees

The City has a limited set of policies that govern private property trees. The most well-known is the Protected Tree and Shrub Ordinance (PTO). The PTO protects specific native species over a certain size from removal without City review and a permit. The PTO language does not explicitly protect trees from construction impacts nor does it protect trees from injurious pruning practices. The City similarly protects “significant trees” in certain parts of the City. These policies, including their replacement requirements and enforcement mechanisms, are detailed below.

Private Property Protected Tree and Shrub Ordinance

The City’s Protected Tree and Shrub Ordinance (Ordinance No. 186873) began as the Oak Tree Ordinance (Ordinance No. 153478), originally adopted in 1980 to protect oak trees

[21] Department of Recreation and Parks Urban Forest Manual, Appendix D
[22] Department of Recreation and Parks Urban Forest Manual, Appendix E
[23] Department of Recreation and Parks Urban Forest Manual, p. 53

on parcels greater than one acre in size. It was expanded in 2006 to include additional tree species and cover all parcel types and sizes, changing to the Protected Tree Ordinance. The most recent update was in 2021, wherein two additional shrub species were added, the fee for the review of these permits was increased, and the definition of tree expert was modified.

The current PTO defines protected trees as all oak (*Quercus*) species native to California (excluding the scrub oak), Southern California black walnut (*Juglans californica*), western sycamore (*Platanus racemosa*), and California bay (*Umbellularia californica*). It defines protected shrubs as Mexican elderberry (*Sambucus mexicana*) and toyon (*Heteromeles arbutifolia*). The size threshold for protection for both tree and shrub species is a four inch trunk diameter at standard height (**DSH**).

DSH - diameter at standard height (four and one-half feet above the average natural grade at the base of the tree). Previously referred to as DBH (diameter at breast height).

Depending on the case type, the PTO allows the Advisory Agency, in consultation with the UFD Chief Forester/Division Manager, or the BPW to review requests and issue permits or deny removal of protected trees and shrubs. The Advisory Agency is established in the Zoning Code (Chapter 1, Section 17.03 and Chapter 1A, Section 13B.7.1.C) as the Director of City Planning. The Advisory Agency can consider removal requests for subdivision cases only, while BPW is given oversight over all case types. Although both entities have the ability to issue these permits, the current practice is for removal permits to be issued by the BPW. The BPW has delegated the authority for approving removal of one or two trees to the UFD Chief Forester/Division Manager. For approved removals, trees or shrubs are required to be planted on site at a 4:1 ratio, with shrubs replacing shrubs and trees replacing trees.

If protected trees are removed illegally, the PTO authorizes StreetsLA to request the Los Angeles Department of Building and Safety (LADBS) Superintendent of Building to revoke or withhold building permits for a maximum period of 10 years. If StreetsLA makes such a determination, the property owner can appeal the decision to the BPW. The PTO includes factors to consider in making a determination or assessing an appeal for whether permits should be revoked or withheld and for what length of time. However, the PTO does not include specific and uniform criteria to guide the length of time for revocation based on the severity of the infraction or other related factors.

Significant Tree Protections

The City also protects trees that qualify as **significant trees** in certain areas.

Significant trees are defined as a tree of any species with a DSH greater than 12 inches and/or greater than 35 feet in height.

Currently, significant trees are included and protected in the following City policies:

- Mount Washington/Glassell Park Specific Plan
- Landscape and Site Design Ordinance
- Proposed Wildlife Ordinance (pending Council consideration and approval)

Each policy identifies a specific set of parcels within the City where significant trees are defined and given special consideration. In the Mount Washington/Glassell Park Specific Plan significant trees on private property within the Plan area require a City Planning permit in order to be removed. In the Landscape and Site Design Ordinance (LSDO), retention of significant trees earns a project credit towards its required points in the LSDO Point System. The proposed Wildlife Ordinance would apply only to a pilot area within the Santa Monica Mountains. A significant tree removal would require discretionary review of the project, a 2:1 replacement planting plan, and no grading or other construction within the TPZ of retained significant or protected trees. Work on the proposed Wildlife Ordinance was paused in 2025 due to elimination of funding in the City's Fiscal Year 2025-26 Adopted Budget. In addition, the City Council has not yet adopted the proposed Wildlife Ordinance.

Historically, projects that require consideration of significant trees have been reviewed by City Planning staff with informal support from UFD. The approvals for any removals of significant trees are completed as part of the approvals for the entire project, rather than through a special separate hearing like trees protected under the PTO or street trees.

8.4 Challenges and Opportunities for Tree Preservation

From a purely arboricultural standpoint, trees are removed when they are structurally unsound or have conditions that make them likely to impact **target(s)**. This occurs when trees are dead, dying, diseased, or have significant defects. Trees in urban settings in good condition are also sometimes removed because the space where they are growing is identified for a different use that is considered a higher priority. In an urban area it is unlikely that all types of removals will be avoided. However, the City can take actions to limit the number of unnecessary removals. This not only maintains current tree canopy

levels, but also supports future canopy increase as the trees continue to mature and grow.

Targets refers to people or things of value (such as cars, structures, and public infrastructure) that could be injured or damaged if impacted by a partial or full tree failure.

Good tree preservation regulations include clearly defined authorities and processes for removal permits, acceptable and unacceptable reasons for tree removal, tree protection protocols, and replacement policies that use industry standards for tree valuation to replace removed benefits. Adoption of tree risk management plans can strengthen decision-making regarding tree removals. These plans may establish clear risk thresholds, provide City staff with decision trees, and include other tools that promote consistency. Furthermore, well-implemented risk management plans can lower the City's overall liability, provided that City departments managing tree assets have adequate staffing to fulfill their duty of care.

Increasing compliance with tree preservation policies can be supported in several different ways. This includes a clear process for submitting requests and appeals, consistent enforcement of violations, public education (also discussed in Chapter 9), regularly updated inventories, and incentives for tree retention. Timely response time on both removal permit requests and illegal activity enforcement are critical and require sufficient staffing levels and clear criteria for when removals are and are not allowed. A clear process and predictable timeline for considerations limits or removes uncertainty and delays that can motivate entities to opt to remove a tree illegally.

For street and park trees, maintaining up to date inventories provide a clear record of factors, such as tree species, size, and condition, that can aid in evaluating the value of an asset that has been damaged or removed. While no inventory of private property protected trees exists, this data would be helpful. Having data to clearly establish the value of a removed tree can support a consistent approach to enforcement, which also encourages overall compliance.

The City can also encourage tree preservation of private property trees through incentives and overall flexibility on other components, like development standards, if applicants retain trees. Public education is key to ensure that residents are both aware of the City's tree related laws and regulations and understand the ecosystem services and life-supporting benefits that trees provide to communities within the City.

The following sections attempt to organize the many and varied opportunities that the City has to improve tree preservation. It first describes the overarching issue of limited staffing, followed by a section detailing the types of tools and practices that, if developed, would broadly support tree preservation policy and implementation. It then discusses challenges specific to park trees; the challenges, uncertainty, and known conflicts for space in the public right-of-way for street trees; and ends with discussion of private property trees, including potential revisions to the PTO.

Limited Staffing

All activities described in this chapter are currently significantly under-resourced. Funding that the City spends on activities related to preserving and maintaining existing trees has high return on investment, with existing mature trees representing the most immediate and readily available path to canopy expansion. The UFFS (discussed further in Chapter 10) proposed the addition of approximately 35 staff within UFD (21 staff) and RAP Forestry (14 staff) for this function. Additionally, preservation activities cannot be funded through outside grant sources in the way that tree planting projects can receive funding. In addition to current limitations in City staff, all recommendations within this chapter for new or expanded activities will also require expanded resources for technical staff within the City.

The City needs more staff allocated to perform the following functions related to tree preservation. These types of positions are needed in City departments responsible for activities related to park, street, or private property tree preservation, such as RAP Forestry, UFD, IED, City Planning, LADBS, and BOE. These functions include:

- Timely review of permit requests, particularly for larger capital and development projects
- Timely enforcement of violations to tree protection rules
- Investigating, researching, and creating staff reports in response to violations, as required to utilize enforcement mechanisms
- Oversight during construction to ensure implementation of required TPZs for retained trees
- Oversight and enforcement of planting of, and establishment care for, required replacement trees
- Response to violations reported outside of regular City working hours, including in the evenings and on the weekends

In addition to an increase in the number of staff focused on tree preservation work, the City would also benefit from new job classifications (as described in Chapter 3, Section

3.5: City Structure).These classifications are especially important to consider for the increased staff capacity needed for conducting inspections and reviewing and writing reports, which are a key part of oversight and enforcement of preservation policies.

Tree Protection Standards and Tools

It is important for the City to develop new or refine existing practices and tools to improve the process and outcomes related to tree preservation. The RAP Urban Forest Manual details these tools as they relate to park trees. For street and protected private property trees, the City should publicly document standards and adopt tools for governing removal and retention decisions through the use of objective standards, ensuring consistent decision-making regarding tree risk, protecting trees during construction, and calculating tree value for replacement requirements. Proposed updates to the BPW Street Tree Removal Policy could present an opportunity to also establish formal criteria for approving or denying street tree removals. Specific recommendations for updates to the Protected Tree and Shrub Ordinance (PTO) are found at the end of this chapter. UFD reports that field staff apply standardized criteria for retaining or removing trees, which are documented in a draft Street Tree Maintenance Manual that remains unfinished due to staffing constraints.

As a foundation for creating these tools and processes, there must be a determination by the City of where trees rank in the prioritization hierarchy as compared to other potential uses for physical space.

Criteria For Removal

It is important that the City develop and document clear criteria, utilizing objective standards, for when tree removals are allowed for all tree types requiring City oversight. This allows project designers a clear understanding of when removals are likely to be allowed or not allowed. This also supports City staff in reviewing requests in a consistent way. In public spaces, especially the public right-of-way, and on private property there are many different uses for land. This fact requires a clear priority ranking of these different uses to ensure removal request decisions are consistently aligned with City policies.

Criteria should include objective standards, thresholds, and findings for removal approvals related to tree health, structure, function, and risk alongside development regulations and land use priorities. Evaluations of tree health, structure, and function estimate the benefits provided, which should be part of the decision-making process. This estimate can aid in the consideration of the impact of tree loss on the surrounding community. Depending on the tree's growing location and the reason for the removal request, different components of the full criteria may need to be reviewed by different City

departments. For example, tree condition assessments may be reviewed by UFD staff while City Planning staff may assess the development related criteria.

Tree Risk Management Plans

Tree risk management plans, either included as part of Urban Forest Manuals or as separate documents, are a useful tool in tree preservation efforts because they establish a risk tolerance framework. This framework includes clear definitions around acceptable and unacceptable risk and creates decision trees for staff to be able to consistently implement the City's policies when making decisions regarding tree assets. Without a tree risk management plan, the definition of risk and subsequent decision around tree retention can vary from arborist to arborist. Tree risk management plans help standardize decisions in cases where a specific tree is being removed because it may be posing a risk to one or more targets. Tree risk management plans focus on removals due to risk considerations, and do not address removals related to converting the growing space to non-tree uses.

Other municipalities have seen reductions in tree removals when a clear tree risk management plan is developed, and staff are trained and re-trained on its use. Such a plan has also aided municipalities in communicating work priorities to the public and subsequently allowed field staff to focus their time on the highest priority work activities from a risk management perspective. This has a potential to allow City resources to be focused on minimizing risks and ultimately being more defensible when they do face liability challenges.

Tree Valuation Process and Tool

There are on-going attempts within the City to determine appropriate valuation of trees as a community asset providing benefits and services. When communicating about value and priority for retention, the main component that is hard to quantify and evaluate is that of time. Currently the replacement ratios required for street or protected private property trees do not take into consideration any specifics about the tree being removed, such as size. For street trees, the replacement ratio also does not consider the species of the tree being removed.

Because of the time factor in tree growth, it is impossible to immediately replace the benefits and services of a removed tree through planting. In many cases, even planting four new trees for each removed tree results in years of reduced benefits and services while the replacement trees grow. However, a valuation tool can provide a number of trees to plant that will more quickly replace the removed canopy. This is accomplished with an evaluation that considers trunk diameter or canopy spread, species, health

condition, and other location factors of the tree slated for removal. It then generates a number of replacement trees based on these factors. After determining the number of replacement trees, the valuation system must also account for the full cost of planting and maintaining each tree to full establishment. This includes all physical and labor costs associated with the actual tree plantings as well as costs associated with five years of establishment care.

Without an accurate tree replacement valuation tool, it may appear that removing and replacing an existing large tree is cheap, when compared to other capital improvement or construction costs. A comprehensive replacement valuation tool will show a more accurate cost of removing and replacing existing mature trees.

Tree Protection Zones

When trees are to be retained, they can be damaged during demolition and construction activities if tree protection measures are not developed and utilized. Tree Protected Zones (TPZs) establish an area around tree(s) to protect the branches, trunk, and roots from construction, grading, or other development activities. The TPZ area will receive protective measures for one or more trees such as installing semi-permanent fencing to protect the root zone with signage, applying mulch, and providing supplemental irrigation during the project. Equipment, soil, portable toilets, and other construction materials should not be located within a TPZ. TPZs require regular oversight and inspection by a project arborist to ensure they are being installed correctly and enforced.

The City currently has limited requirements for TPZs. Street trees are given protections in the LAMC, which includes a section disallowing anyone to "pile building material, or other material, about any tree, plant or shrub in any street in any manner that will in any way injure such tree, plant or shrub" (LAMC 62.174). However, the LAMC does not require the formal establishment of a TPZ for street trees, which would include the fencing and other protective aspects of a TPZ. Nor does the City have adopted definitions for TPZ, root zone, and other aspects of tree protection. Outside of projects under the jurisdiction of the LSDO, TPZs are not required in plans for development where trees are retained. TPZ requirements should be incorporated in all instances where the City has oversight of construction or demolition work being conducted near trees.

Enforcement

Enforcement of existing laws and regulations related to protected trees has been an area where the City has faced significant, on-going challenges and where public frustration is felt acutely. When trees are illegally removed or damaged during construction, there is a public desire for the City to react swiftly to enact meaningful penalties. However, current

systems are complex, require burdensome levels of staffing for small and resource constrained teams, and are limited within the legal mechanisms available to the City. While enforcement mechanisms and capacity are critical to successful tree preservation, it is an area where the path forward for the City is unclear. Enforcement could be improved through revisions to ordinances to make enforcement options more feasible and clear, through increased dedicated staffing for enforcement activities, and through greater social pressures for tree preservation. There will need to be a robust conversation on this topic during updates to the PTO or the City ordinances for street tree protections.

Specific Considerations for Park Trees

As described previously, the RAP Urban Forest Manual defines protected trees, identifies criteria for removal, details the process and identifies decisionmakers for removals, outlines public notification protocols, defines the method for determining replacement trees using a standard industry tool, and clearly states enforcement actions for non-compliance with the policy. The strong and well-defined policy puts park trees at a significant advantage on the topic of preservation. However, challenges to preserving park trees remain important to address, as the City's largest tree specimens are generally found within City parks, representing significant community assets.

Capital Project Impacts on Park Trees

RAP and BOE collaborate on capital projects to build new parks and provide significant upgrades to existing parks. These projects are critical to providing recreation opportunities to residents. However, some projects result in premature tree removal. When there are conflicting park needs some tree removals are unavoidable. However, due to current practices and lack of staff resources and capacity within RAP Forestry, tree removals that could be avoided also sometimes occur.

There are also times when other City departments or agencies utilize RAP land. Prior examples include projects such as Los Angeles Department of Water and Power (LADWP) engineered stormwater capture projects in North Hollywood or tiny home projects led by BOE. Similar to the capital projects completed by RAP and BOE to change or upgrade existing facilities, or add new recreation facilities, these projects should comply with the steps outlined in the RAP Urban Forest Manual.

It is recommended that technical staff positions are allocated and funded, and capital project teams are required to do in-person site visits with them prior to project design. An in-person site visit, with a qualified staff arborist and the capital project design team, prior to commencing design could allow the department to consider trees and work around

them more effectively. At such a site visit, RAP Forestry staff and the capital project team can discuss:

- Recommendations for tree retention, including discussion of likelihood for different trees to survive construction activities and preferred specimens for retention or removal
- Tree protection specifications required during construction to prevent damage and avoid potential impacts to trees' health
- Replacement tree planting plans
- Irrigation or other establishment care needs

Tree removal decisions should always be made with oversight from RAP Forestry. A staff arborist should be part of the capital project team to ensure positive tree outcomes during initial and final design phases as well as during construction activities. This allows the appropriate expertise to provide guidance that will result in an improved project for residents.

Specific Considerations for Street Trees

The City must establish a clear hierarchy and set of priorities for public right-of-way planning and use. While not all tree removals can be avoided, clear prioritization will support tree retention, reduce public and developer confusion and frustration around the removal request process, and support future tree planting efforts. It is also crucial that City leadership understand when design standards, project planning, or adopted priorities have an opportunity to be modified to improve tree and shading outcomes or have a potential to limit the City's ability to meet urban forestry goals and targets.

Detailed in the sections below are conflicts that are known to cause premature tree removal or extensive project delays due to lack of clarity. Actions should be considered to address these issues.

Competition in the Public Right-of-Way

It is not clear within the City what criteria, or even what entity, gets to determine prioritization of space within the public right-of-way on different street typologies. Street trees live within a contested and congested environment. The needs of City departments overlap with the space used for planting and growing street trees, which results in frequent conflicts. Utility delivery and access for maintenance, roadways and parking, street light illumination, pedestrian facilities, ingress and egress from private property through driveways, and other varied uses all co-exist and negotiate for space within the public right-of-way. While there is collaboration between City departments with assets and use needs in the public right-of-way, when determinations around street tree

retention or removal are made there is currently no clear hierarchy of priorities to guide staff decisions.

Because trees have historically been treated as beautification elements, rather than treated like other essential public infrastructure, urban forest managers are often at a disadvantage. Entities such as LADWP, Los Angeles Department of Transportation (LADOT), BOE, the Public Works Bureau of Street Lighting, and emergency responders have been able to assert that their infrastructure component, utility access, or other use of the public space should be accommodated over trees. Furthermore, trees do not have external regulatory compliance requirements, like stormwater or Americans with Disabilities Act (ADA) access, or authorities granted through California State or federal laws to utilities, like LADWP and the Los Angeles County Metropolitan Transportation Authority (Metro). Entities with these external support mechanisms have either the appearance of more or actually have more decision-making power in public right-of-way asset prioritization. As trees provide critical pedestrian protection and resident comfort through cooling and other services, the City should consider ways to limit removal of existing, mature trees.

The City could develop a public right-of-way hierarchy that dictates priorities for various contexts or street types, using corresponding criteria and incorporating equity and community input on site-specific priorities. The City's Street Design Manual, managed by BOE and currently being updated, may be a mechanism to clearly define these priorities and guide City actions to design public right-of-way spaces inclusive of good tree infrastructure.

While there are opportunities for public feedback on tree removal requests, public comment expressing a need for increased or retained canopy and shade does not change the requirements or authorities of other, competing assets or space uses. The City would benefit from further documentation of the prioritization hierarchy for the use of space in the public right-of-way. Clear prioritization would help the public understand how and why decisions related to tree removals are made, and could also result in different decisions regarding tree retention.

Street Trees and Sidewalk Conflicts

One of the most pervasive areas of conflict in the public right-of-way is with sidewalks. Per the Rehabilitation Act (1973) and the Americans with Disabilities Act (1990), the City is required to provide pedestrian facilities that meet certain criteria related to slope, displacement, width, access, and clearance. On this topic, consideration is needed regarding overall conflicts between sidewalks and trees, opportunities to improve this

relationship, and the extent and limitations of the current settlement agreement focused on addressing sidewalk conditions.

Trees will find ways to grow in spite of constrained conditions. While this impressive resilience should be applauded, the City must also find ways to have trees not conflict with their sidewalk neighbors. To date, the primary way to approach this is to ensure careful consideration of tree species size and characteristics when planting new trees in fixed public parkways or tree wells. This approach, paired with other reasons for using smaller tree species, has resulted in a trend of downsizing the urban canopy. This is seen in urban areas nationwide.

Another approach to reduce conflicts between trees and infrastructure is reconfiguring the public right-of-way to accommodate the growth of larger tree species. For tree preservation, such an approach would provide a greater opportunity to retain existing mature trees in a way that would retain canopy benefits and prevent on-going sidewalk conflicts. As the City looks to address ADA compliance, resilience to extreme heat, and promote active transportation, this approach should be considered more seriously in the future.

Chapter 6: Tree Planting and Establishment Care discusses the potential for increased canopy through such an approach when designing for new trees.

Current mechanisms utilized to address sidewalk damage from existing trees include root pruning, expansion of grow space or other minor modifications, ramping the sidewalk, and meandering the sidewalk onto the adjacent property. Other mechanisms for consideration include meandering the sidewalk through roadway re-configuration and planning for regular sidewalk repair where panels are replaced with greater frequency when there is uplift. Each of these interventions have limitations to their use. This largely includes the factors of species and site compatibility with the intervention, cost, and time.

The City is ten years into a 30-year settlement agreement to repair sidewalks for ADA access, referred to as the Sidewalk Repair Program (SRP). At the time of the initial settlement, it was estimated that 80% of non-compliant, uplifted sidewalks were due to conflicts with trees and that as many as 12,000 trees might be removed through the program. BOE is responsible for managing the SRP and has worked closely with UFD to review trees adjacent to project sites and attempt to retain as many existing trees as possible. This has been successful to date, with a total of 845 trees removed by the program from 2016 through June 2025.

This program is currently utilizing root pruning and site expansion in most retention situations. Root pruning can only be used for trees that are tolerant of the practice and in locations where the extent of the root pruning would not compromise the stability of the tree. This is frequently paired with sidewalk width reduction to allow additional growing space for tree roots and further distance between the trunk and the root pruning cut. Sidewalk width reductions are not feasible in all cases. In particular, to reduce sidewalks below the minimum required 48-inch clear width for disability access, the City must make required findings for further reducing the sidewalk width to retain the tree. Occasionally, the City is also able to use ramping or meandering of the sidewalk to accommodate existing trees, but the conditions that allow those treatments are even less frequent.

This settlement requires certain annual expenditures by the City and dictates certain time parameters for addressing accessibility requests. Eligible expenses under the conditions of the settlement are limited and closely monitored. While a larger, capital improvement project to create more space for a retained tree would be a more sustainable intervention, this type of expenditure is not eligible. Projects of this type would support the health and longevity of the tree, while also maintaining desired sidewalk widths and avoiding future sidewalk uplift. However, projects of this type require impact analysis of other aspects of the space, such as traffic flow, street sweeping, and stormwater compliance impacts, which are ineligible expenses. Not only are the higher expenses of capital project analysis, design, and construction not eligible expenses for the SRP, but they also require more time than is allowed under the settlement. At present, no other funding or approach within the City has been identified to cover this gap.

The trees that are causing sidewalk uplift are typically large, well-established specimens that are providing significant community benefits and canopy coverage of the sidewalk and adjacent roadway. It would be beneficial if the City adopted criteria and standards, as well as allocating necessary funding outside of the SRP requirement, to retain these existing assets while fully complying with ADA requirements.

Illegal Activity

Currently UFD and IED use a combination of strategies to address illegal tree removals and inappropriate pruning (described in Section 8.3). However, this current process has limitations that could be addressed through an update to the City's ACE program. When an ACE citation alone is issued, the structure of the ACE citation established in Ordinance 182610 within LAMC 11.2.04 Subsection (b) does not include a requirement to replace the damaged or removed City asset. The City could consider changing the LAMC to include updated ACE fines that also include requiring tree replacements for tree-specific violations.

When UFD pursues these types of violations, it is incredibly time consuming. While important, this effort feels particularly challenging as UFD often finds that gathering sufficient evidence to prosecute these violations successfully is difficult or impossible. Further exacerbating the ability to gather evidence is the emergence of AI and sophisticated image generation, which has been used for documentation of violations or permit compliance. Processing a tree violation is not only time consuming but requires resources from arborists, prosecutors, and LAPD personnel. Compared with higher-priority crimes such as homicide, the cost and effort involved may be difficult to justify, particularly when staff must balance these cases against more serious public safety needs.

Design Preferences

Developers often request street tree removals in order to achieve a specific design aesthetic. In these cases, the applicant plans to replace the removed trees with a specific species. These types of removals are not aligned with good urban forest practice. The development of public objective standards for removal could help inform the design community and discourage these types of applications. The City could also engage design, real estate, and development professional organizations to educate their members on sustainable urban design standards, especially when it comes to tree selection and the design field's preference for uniformity. Additional public education on species selection, urban forest stability metrics for species diversity, and the value of preserving existing trees could also assist with changing public perceptions.

Specific Considerations for Private Property Trees

Currently, the majority of existing trees within the City are on private property. The City can provide standards and requirements through zoning and development review but largely has limitations on what it is allowed to require and enforce on private property. Given this, existing City laws and regulations that support tree preservation must continue to be refined over time to support clear and enforceable regulations. The City could also consider the feasibility of a required minimum canopy cover by land use type, which may further incentivize retention of existing trees to meet such a canopy requirement.

Achieving a minimum of 15% tree canopy cover in all neighborhoods, will require the City to assess and develop a clear approach for where and how private property tree canopy will fit into supporting the City's canopy goals. This should be paired with careful consideration of feasibility and metrics for the public right-of-way and capacity of existing or future parks in a neighborhood. Neighborhoods that have limited future tree canopy

expansion on private property will need to consider how to provide that space in the public right-of-way in order to meet the tree canopy goals set forth in the UFMP.

Recommendations included earlier in this chapter related to limited staffing and standards and tools for tree protection are important related to private property trees as well. To further reduce uncertainty and improve outcomes, the City must also clarify and align roles to improve oversight of private property trees, update the PTO, and consider brush clearance regulations and implementation.

SUPPORTING HOUSING AND TREES

Greater housing density, cost-effectiveness of development projects, and other metrics have been used to justify removing existing trees on private property. As desires for greater housing density and expedited housing development processes continue to be elevated, it is more important than ever to consider how the land and assets built and maintained by the City can ensure cool, connected, livable communities. Increasing space for street and park trees will likely be needed in order to offset the reduced space available on private property. These expedited processes for private property development also further emphasize the need for objective design standards related to trees.

Tree Removal Permit Process

There has been significant coordination within the City to have better referral processes, clearer information for applicants, and to prioritize the review of trees earlier in the development process. Many of those efforts are detailed within a joint report submitted to Council File 15-0499-S2.

There remains a fragmented review of trees on private property. Protected trees and shrubs are reviewed by UFD and approved by the BPW. City Planning reviews significant trees with informal, unfunded technical support from UFD. LADBS adds tree clearances for private property only when an applicant voluntarily discloses clear and direct information to City staff. Construction and grading activities can harm protected trees in the vicinity but generally are not reviewed by City staff if a protected tree removal permit application is not submitted. A more consistent approach to tree review on private property is needed and will be beneficial for City staff as well as applicants.

Public Works does not oversee any other activity on private property. The City of Los Angeles Charter specifies the core duties of Public Works in Sections 580 - 582, with the primary mandate being the public right-of-way. UFD's inclusion in private property determinations is challenging, as they are weighing in on only one portion of a larger project. Additionally, as StreetsLA does not control any aspect of final approvals related to LADBS's Certificate of Occupancy, it is difficult for UFD to exert its limited authority over private property matters when a violation occurs. There may be a significant opportunity to transform private property tree protection into a proactive and integrated component of other private property work.

To that end, the structure of governance of the PTO should be further evaluated. Decisions for tree removal requests should be contemplated alongside consideration of other design components and approvals in order to have the best possible tree outcomes and encourage compliance. Additional consideration should also be given to addressing protected tree removal requests and illegal removals that are not tied to a development project, as these instances are particularly hard to enforce. If any changes are pursued by City decision-makers, the exact organizational structure should be fleshed out in coordination with all involved City departments and the development of new job classifications should be prioritized. Regardless of any changes to the structure of governance, increase in staffing is necessary for timely review of protected tree removal requests and enforcement activities.

Updates to the Protected Tree and Shrub Ordinance

In addition to the potential structural changes discussed above, updates to the PTO are also included as a key recommendation of the UFMP. As such, this section provides detailed recommendations for that effort. The City's PTO includes known issues that impede enforcement as intended, in addition to the previous discussed staff capacity needs. To address these issues, and improve both tree outcomes and development timelines, this section recommends a variety of improvements, including updates to the PTO itself, structural changes to oversight of the PTO, and additional job classifications for urban forestry and urban ecology work.

DRAFT

OFM recommends the City conduct an overhaul of the PTO through a legislative process that addresses, but is not limited to, the following:

- Add planted trees to what is protected by the PTO
- Add Tree Protection Zone (TPZ) requirements for retained trees
- Require all trees and TPZs to be included on site plans and construction drawings
- Remove exemption that exists if an applicant already has a permit from LADBS
- Refine the definition of "removal" and/or "damage" to ensure intent of the PTO is enforced
- Adopt objective standards that increase clarity on when trees are permitted for removal and support the City to continue to preserve trees through ministerial review when discretionary review is disallowed by the State
- Update fees and fines related to oversight and enforcement
- Add additional options that provide applicants with a variety of mechanisms to meet replacement conditions and have those replacements provide the outcomes desired by the City
- Increase review requirements for all projects with protected trees on site to assess and limit potential impacts from construction or grading activities
- Consider expanding protected status to include significant trees citywide

Further discussion and research is needed to decide how to address protected tree species growing on parcels within the City that have never been developed. These sites have posed some of the most challenging cases and greatest community concern in implementation of current protections. Some of these issues may be addressed by updating replacement requirements to allow additional options. However, consideration should be given to potential adjustments to land use and zoning, processes for transferring parcels into conservation, and other opportunities to address known issues with these types of sites. This could also be paired with consideration of developing a new distinct ordinance to address the occurrence and protection of sensitive natural communities as defined by the state.

Brush Clearance Regulations

Brush clearance regulations are summarized in Appendices B and C.

Brush clearance regulations exist at the City and state level to mitigate potential fuel for wildfires in the wildland urban interface (WUI) and Very High Fire Hazard Severity Zones (VHFHSZ). These regulations, overseen by the Los Angeles Fire Department (LAFD), are an important component of emergency preparedness. Defensible space, when paired with home hardening and other strategies, supports resilient communities in VHFHSZ. While focused on vegetation more broadly, the implementation of brush clearance

regulations can impact trees, including both protected and non-protected trees. These regulations are more stringent than other state or regional approaches to vegetation management and can result in premature tree removal when misapplied.

The City receives complaints annually regarding contractors or individuals who remove more than is required by regulations, damaging valuable habitat and removing tree canopy cover. While brush clearance regulations are critical for managing vegetation and reducing fire risk in these areas, increased support should be provided to ensure avoidance of this unnecessary environmental harm. The City should conduct an evaluation of the most cost-effective and successful ways to prevent damage or removal of protected private property trees and shrubs during annual brush clearance. This could include consideration of updating protocols, public communication materials, LAFD Brush Clearance Unit staff and sub-contractor training or certification, and contract specifications to ensure that protected private property trees are not removed or damaged during annual brush clearance.

The City should regularly review and update its practices for vegetation management in these sensitive areas, paired with considerations of other fire safety practices such as distances between buildings and home hardening practices. This is particularly important as an increasing number of urban conflagration fires are occurring in addition to the more well-known wildfires.

DRAFT

Chapter 8 Summary of Recommendations

Recommended Strategies or Actions to Address in Current or Future Implementation Plans	Strategic Plan Connections
Limited Staffing	
Increase staffing levels for timely review of tree removal permit requests for street, park, and private property protected trees in all responsible City departments (such as RAP Forestry, UFD, City Planning, and/or LADBS).	**Strategy** G-4
Increase staffing levels for enforcement of requirements for protecting retained trees and planting mitigation trees in all responsible City departments (such as RAP Forestry, UFD, LADBS, BOE and/or the Public Works Bureau of Contract Administration).	**Strategy** G-4
Increase staffing levels and technical capacity for timely response to illegal tree removals or other protection violations, including for investigating, researching, and creating staff reports in response to violations to support enforcement mechanisms and response for all responsible City departments (such as RAP, UFD, IED, City Planning, and/or LADBS).	**Strategy** G-4
Assess best method for supporting enforcement response to illegal activities outside of regular City working hours, including in the evenings and on the weekends, and provide additional funding to implement.	**Strategy** G-4
Request the Personnel Department to start the process to create civil service job classifications for urban forester and urban ecologist to allow City departments another avenue for hiring the appropriate technical expertise for overseeing living infrastructure management. (See also Chapter 3: History and Governance of Trees in Los Angeles)	**Strategy** E-3
Tree Protection Standards and Tools	
Complete and Adopt a Street Tree Manual to document UFD's policies and processes for oversight and management of the City's street tree assets, including those related to tree removal requests, permitting, and enforcement for illegal removals. (See also Chapter 6: Tree Planting and Establishment Care and Chapter 7: Tree Maintenance)	**Strategy** E-6
Continue to adopt updated versions of the RAP Urban Forest Manual as updates are needed for tree preservation. (See also Chapter 6: Tree Planting and Establishment Care and Chapter 7: Tree Maintenance)	**Strategy** E-6
Create and adopt Urban Forest Manuals for City departments other than UFD and RAP Forestry responsible for tree assets. This may include GSD, LAWA, the Los Angeles Harbor Department, and LADWP. (See also Chapter 6: Tree Planting and Establishment Care and Chapter 7: Tree Maintenance)	**Strategy** E-6
Create clear criteria that utilize objective standards to support when tree removals are or are not permitted. Criteria should include standards and findings for removals related to tree health, structure, risk, and land use priorities.	**Strategy** C-8
Regularly review the City's preservation policies to ensure current and future policies include objective standards.	**Strategy** E-1
Develop and adopt a risk-based management plan for street, park, and other City-managed trees to establish a risk tolerance framework that includes clear definitions around acceptable and unacceptable risk and creates decision trees for use by City departments. (See also Chapter 7: Tree Maintenance)	**Strategy** E-8

DRAFT

Recommended Strategies or Actions to Address in Current or Future Implementation Plans	Strategic Plan Connections
Create a tree valuation tool that is based on industry standards and utilizes trunk diameter or canopy spread, species, health condition, and other location factors of the tree slated for removal to calculate total number of replacement trees required and full cost to plant and establish all replacement trees.	**Strategy** E-1
Update existing tree protection policies to utilize a tree valuation tool for determining the total number of replacement trees required. Assess all other appropriate use cases for the tree valuation tool and make any appropriate updates to policies or regulations to establish its use.	**Strategy** C-8
Develop Tree Protection Zone (TPZ) guidelines and requirements in all instances where the City has oversight of construction or demolition work being conducted near trees, including both the public right-of-way and private property development.	**Strategy** C-8
Consolidate assessments of challenges and opportunities related to existing tree preservation ordinances and utilize recommendations to strengthen tree preservation for protected trees, both private property and street trees. If needed, conduct an assessment to understand the most efficient way to increase successful enforcement of tree protection laws and regulations.	**Strategy** C-8
Create data layers for likelihood of protected and significant tree presence on parcels.	**Strategy** D-7
Specific Considerations for Park Trees	
Update process to require that capital improvement projects on park land consult with RAP Forestry staff when making project decisions that may result in tree removals or will require protections for retained trees in areas adjacent to construction activities. Ensure RAP Forestry is appropriately empowered and staffed to support tree preservation whenever possible.	**Strategy** C-12
Specific Considerations for Street Trees	
Conduct assessment of gap in capacity related to enforcement of violations related to illegal street tree pruning and removals, including assessment of needs related to response to reports received after hours and on weekends.	**Strategy** C-4
Determine prioritization criteria for various public right-of-way assets within different street typologies to allow for clearer decision-making for tree planting locations and street tree removal or retention.	**Strategy** A-4
Update street tree valuation processes, methods of tree retention, and removal criteria to support decision-making when trees and sidewalks are in conflict.	**Strategy** C-10
Assess the most cost-effective methods for addressing conflicts between trees and sidewalks that supports the health and longevity of trees and compliance with ADA requirements.	**Strategy** C-10
Engage design, real estate, and development professional organizations to educate their members on sustainable urban design standards, especially when it comes to tree selection and the design field's preference for uniformity.	**Strategy** F-5
Specific Considerations for Private Property Trees	
Consider a required minimum canopy cover by land use type to incentivize retention of existing trees to meet such a canopy requirement.	**Strategy** A-5

DRAFT

Recommended Strategies or Actions to Address in Current or Future Implementation Plans	Strategic Plan Connections
Conduct holistic assessments of tree canopy cover by neighborhood that consider capacity for tree canopy expansion in public spaces and on private property. Where less space is available on private property, ensure decisions are made to increase space for tree canopy in the surrounding area in the public right-of-way and/or in parks.	**Strategy** D-4
Update the Protected Tree and Shrub Ordinance (PTO) to address known issues, create objective standards, remove existing loopholes, and create additional replacement pathways.	**Strategy** C-8
Include updates to the City's fee structure for protected tree review of removal requests, approval or denial of permits, and oversight of replacement requirements and overall protection as part of the updates to the PTO.	**Strategy** G-2
Include updates to the City's fine structures related to violations of the ordinance as part of updates to the PTO.	**Strategy** G-2
Assess the most appropriate way to address protected trees growing on parcels within the City that have never been developed. Consider increasing the options for replacing trees permitted for removal, potential adjustments to land use and zoning, potential for conservation of these parcels, and other opportunities to address known issues with these types of sites.	**Strategy** C-8
Begin evaluation of private property tree oversight to determine the City department best suited to manage their permitting and enforcement upon establishment of the new civil service classifications. Consider opportunities for alignment with other private property decision-making and ensure that adequate staff resources are assigned for these functions.	**Strategy** C-9
Assess the necessary level of staff capacity and urban forestry expertise required by the City department(s) responsible for PTO oversight and enforcement, ensuring ability to respond to reports of illegal tree removals after hours and on weekends. Consider the most effective organizational structure within the responsible City department(s) for efficient PTO oversight and enforcement.	**Strategy** C-9
Conduct evaluation of the most cost-effective and successful ways to prevent unintended damage or removal of protected private property trees and shrubs during annual brush clearance activities.	**Strategy** C-11
Consider updating protocols, public communication materials, contractor training, and contract specifications to ensure that protected private property trees are not removed or unintentionally damaged during annual brush clearance.	**Strategy** C-11
Regularly review and update, if necessary, the City's practices for vegetation management in sensitive areas.	**Strategy** C-11
Consider updating LAFD's brush clearance requirements with assessment of other regional fire departments policies.	**Strategy** C-11

DRAFT

Chapter 9: Community Engagement and Public Education

This chapter covers community engagement and public education, which are essential for fostering strong, collaborative connections between the public and City entities. Through these topics, this chapter aims to address procedural and recognitional equity, two of the **three types of equity**.

Three Types of Equity

- **Distributional equity:** the distribution of trees and access to tree benefits targeted to marginalized or disinvested communities.
- **Recognitional equity:** institutionalize accountability and ensure future decisions are made with recognition of past harms and historical context in urban forest planning that disproportionately provided more benefits to certain groups.
- **Procedural equity:** access to information and decision-making processes for underserved communities, transparency, and impartiality in decision making and the provision of services.

Chapter 1, Section 1.3: Four Pillars of Urban Forest Management also includes a detailed overview of this pillar.

Community Engagement

Robust community engagement includes a range of practices. First, there should be transparent and clear communication pathways regarding tree decisions and process changes. This includes methods for the City to inform the public and to receive public feedback or appeals of City decisions. Second, there should be opportunities for public input on projects or policies. These should be designed to encourage and support public involvement in decision-making. This includes thoughtful and iterative community conversations and feedback when developing urban forest projects, policies, and programs. Third, there should be recognition and acknowledgement of past processes and decisions that have caused community harm and taking steps to right these historic wrongs. These engagement practices are important for addressing procedural and recognition equity by ensuring access to the process and participation in decision-making and acknowledging the context and lived experience of community members to foster open dialogue and rebuilding of trust.

Public Education

In addition to conducting engagement, the City must also conduct public education through thoughtful and strategic messages, materials, and campaigns. Existing projects and programs educate community members on varying topics at varying depths. However, there also should be broad, standalone education campaigns designed to provide information and understanding on specific urban forest topics.

9.1 Why Conduct Engagement and Education?

Community engagement is important for many City functions, not just urban forestry. When it comes to urban forest activities, the City must ask for and listen to the vision and priorities that residents have for trees in their neighborhood. Strong engagement activities help build public trust in the City and credibility for City processes. This also allows decisions and public investments to result in desirable outcomes for those that live, work, and play around them.

Public education is important to foster basic understanding of why trees are important in the region and what those trees need to live long, healthy, and relatively low risk lives alongside Angelenos. In urban settings, trees' natural cycles are regularly interrupted by human activities. Often this occurs without human awareness of the damage or impacts they might be causing. Trees must be monitored and managed when living in such close proximity to people, homes, cars, and other urban infrastructure. The health and longevity of an individual tree, and subsequently the safety of the people around it, are significantly impacted by how these activities are done.

Within the City, activities occur daily in ways that create new risks or cause premature removal of trees. These activities are conducted both by those responsible for caring for trees and those responsible for conducting other work in the vicinity of trees. Examples include: adjusting the landscaping or irrigation systems in a yard; cutting branches and limbs to achieve a certain shape or height without regard for tree biology and wound response; weed-whacking in a way that injures a tree's trunk when removing grass and weeds around a tree; trenching through tree roots; or piling heavy materials on the roots. Trends in landscape management include inappropriate and harmful pruning that cause reductions in canopy and premature tree loss.

Effective public education is crucial for mitigating negative impacts on trees and fostering public support for the urban forest. This necessity stems from the fact that a large number of Angelenos influence the urban forest, which spans both publicly and

privately managed land across the City. Consequently, both the public and the City share responsibility for urban forest management. Because numerous individuals and private groups make daily decisions regarding the planting and maintenance of private property and street trees, the City acting alone cannot achieve its canopy and management objectives. However, the City can play a vital role by providing vision and education that clarifies the public's essential contribution to meeting these collective goals.

CANOPY EXPANSION IMPACT

A high percentage of trees in the City's urban forest (estimated to be 80-90%) are on private property and therefore managed by individuals or private groups making individual decisions that either support canopy increase or decrease.

9.2 Community Feedback on Engagement and Education

See Chapter 1, Section 1.4: UFMP Community Engagement Campaign for more details on the engagement process.

Having encouraging, consistent, and unified messaging to promote positive behavior was a strong theme heard in the feedback provided during the community engagement led by the UFMP's community partners, including frequently expressed concerns about trees being removed prematurely.

Several in-person workshop participants expressed the frustration of not understanding the public process or where to find assistance when they had tree issues or questions. Whether it is to report a violation or to find resources, participants found that access to assistance, particularly in multiple languages, was extremely difficult to find. Participants expressed that calling the City's MyLA311 system generally resulted in long wait times before reaching City staff. They further reflected that these calls often did not result in a satisfactory response to address their issues and that follow-up and follow through were lacking.

The lack of transparency in City processes was also a large source of frustration expressed by community participants throughout UFMP engagement. They shared that the City websites are not intuitive to use, that translations, if available, are of poor quality, and connecting with the appropriate City staff is very difficult to accomplish. Participants

felt that the City engages with the community for outreach but there is little accountability after the community's time is invested and their input is shared.

Participants expressed an urgent desire to also be part of the design and species selection process for tree planting projects. As the people that live in the neighborhoods where these plantings and improvements are being made, residents want to be able to shape new projects to ensure they fulfill what the neighborhood needs, reflecting a shared vision. They want decisions made that respect their specific context and understanding of their neighborhoods, which includes acknowledging and validating community experiences of persistent disinvestment.

These comments and feedback regarding lack of City process transparency and available resources were also consistently heard in the engagement conducted for the City's 2025 Climate Vulnerability Assessment, the draft Health and Environmental Justice General Plan Element and the draft Open Space Element Update.

9.3 Who Funds and Conducts Engagement and Education?

City Departments, Divisions, and Offices

The City provides limited and occasional information related to the urban forest. This includes activities such as:

- Media advisories on occasional service updates or specific projects; updates to public-facing websites;
- Virtual or in-person presentations on new programs;
- Presentations on permits, policies, or projects in public hearings as required by State or local ordinance or department policy;
- Tabling at public events or presentations at Neighborhood Councils as requested and as capacity allows.

City departments attempt to inform the public and maintain public transparency around the City's work on City-managed tree assets and policy updates. There are limited staff with technical expertise specifically related to trees, and those are largely employed in roles focused on maintenance and operations.

Nonprofit Partners

The City's urban forestry nonprofit partners do the most frequent and comprehensive education and engagement on trees. These organizations exist across the City and have long-term relationships with the communities and constituents they serve. Their activities

largely focus on project-based outreach and education, providing information to residents or gathering feedback in areas around a planned or on-going tree or urban greening project. They also have specific expertise and experience conducting outreach and education on trees and to their specific communities, allowing these organizations to be effective in disseminating and communicating information.

These external partners conducting education and outreach have included various groups over the years, but a core and consistent group has included City Plants, Koreatown Youth and Community Center (KYCC), Los Angeles Beautification Team, Los Angeles Conservation Corps (LACC), North East Trees, and TreePeople. Over the past two decades these groups have particularly focused on how to meaningfully engage residents in communities with low tree canopy cover and high social vulnerability to enable successful projects that meet community needs and priorities.

Several of these organizations collaborated to develop the Tree Ambassadors program in 2021, with funding from the California Department of Forestry and Fire Protection (CAL FIRE), the United States Forest Service, and the Los Angeles Department of Water and Power (LADWP). This program was intended to mimic or leverage the *promotoras* model, where local leaders are trained to share information through existing social networks. Several rounds of the Tree Ambassadors program have been conducted thanks to consistent and on-going LADWP funding and the materials have been shared with other groups across the country.

The City has also collaborated with other groups that are not focused on urban forestry but have strong ties to local communities. These collaborations have supported the City in gathering community feedback and sharing information, as seen within the UFMP community engagement campaign and the Climate Vulnerability Assessment (CVA).

City Advisory Committees and Councils

Community Forest Advisory Committee

The City established the Community Forest Advisory Committee (CFAC) in 1993 based on recommendations within the 1993 Urban Forest Task Force report (see Appendix F). CFAC's initial mandate included generating private support for City trees, both financially and through cultivating volunteerism, as well as serving as an information hub and educational arm on trees and their management for the public and City decision-makers. The role, function, and focus of CFAC has varied over the decades but it has provided a forum for discussion of urban forest related topics and issues as an official advisory body. The members have also played a role in sharing information with their Council

District offices and with other members of the public in their neighborhoods, as well as elevating areas of concern from the public to City staff.

The ability of CFAC members to collaborate directly with City staff on the development of policies and programs has been limited, in part, due to their existence as a Brown Act governed body. Additionally, while the original recommendations encouraged including a variety of disciplines in their membership, there are no technical requirements for appointment. Education and engagement activities conducted by CFAC vary based on the interest, expertise, and capacity of the members at a given time.

Neighborhood Councils

Neighborhood Councils are another important component in the City's structure for connecting neighborhoods to the City and elevating community concerns, including those about tree related issues and projects, through mechanisms like the development of Community Impact Statements (CIS). The level of interest and actions related to tree issues vary over time and from one Neighborhood Council to another. The Neighborhood Council system also includes the Neighborhood Council Sustainability Alliance (NCSA), which convenes members of multiple Neighborhood Council and holds public meetings to provide information and discussion of topics related to sustainability, including trees.

9.4 Challenges and Opportunities for Community Engagement and Public Education

Effective urban forest management relies on continuous education and meaningful community engagement. Particularly in Los Angeles, where the historic ecology of the region was largely shrub-dominated chaparral rather than dense forest or woodlands, it is important to align urban forest decisions and investments with clear community goals and priorities. Community support is needed to ensure trees provide a full return on those investments. Trees should be cared for after planting, maintained with minimal pruning that is aligned with specific objectives, and retained for their full life span.

The success of Los Angeles' urban forest and its overall quality depends on residents embracing these management principles and the regulations designed to uphold them. Angelenos must understand how trees are used to improve their quality of life and health, advocate for necessary funding levels for urban forest planning and management, and engage qualified professionals for their own tree work. Los Angeles is a city of four million people with diverse priorities, values, interests, and availability. There is not a broad understanding of what trees need nor of respect for the technical expertise required of qualified professionals in the arboricultural field.

The majority of trees in the region grow on private property, making education and engagement essential to ensure the urban forest as a whole remains healthy and continues providing intended benefits. While the City can regulate public trees, private tree management is often best influenced through education and the cultivation of social norms. Tree decisions can also be regulated and enforced through City requirements, however, this is both limited by the authority of the City over private property practices, plus enforcement can be much more costly and less effective than establishing norms around professional tree care and reinforcing the importance of trees for communities.

Citywide Urban Forest Public Education Campaign

The need to better inform the public on both the importance and value of trees has been long established. Both the 1993 Urban Forest Task Force report and the 2018 First Step: Developing an Urban Forest Management Plan for the City of Los Angeles report (First Step report) detailed the need for public education. The recommendation to "Implement public outreach to improve urban forest awareness and engagement" is the only priority recommendation from the First Step report to not receive significant investment and activity. The First Step report stated that "Providing fact-based information regarding the significant benefits trees return to each resident is critical to raising tree and urban forest awareness, acceptance, and appreciation. Providing a strategic, community based, and focused urban forest outreach campaign must include the same type of unified message and approach as other successful programs, with a variety of message formats in print, on television, across social media platforms, and at publicized events."

While the City did not allocate sufficient resources to conduct a focused, citywide public education and engagement campaign, there were actions taken related to this recommendation. In the time period following the First Step report, the City hosted four annual Tree Summits and annual Arbor Day celebrations, the Office of Forest Management (OFM) hosted the Lunch and Learn with the City Forest Officer series, and City Plants and OFM collaborated on the Growing Vibrant LA Communities webinar series (2020 and 2021). Additionally, OFM conducted the engagement campaign for the UFMP in collaboration with Los Angeles County.

See Chapter 1, Section 1.4: UFMP Community Engagement Campaign for a more detailed description.

The need for a citywide public education campaign to inform community members and develop support for urban trees persists. It is therefore important for the City to develop a framework for urban forest public education and provide funding for a citywide

campaign. Such a campaign should engage and collaborate with local nonprofit partners, who have been conducting meaningful engagement at the community level for decades. Developed in partnership, the framework should lay out goals and success metrics for the campaign, identify audiences, indicate the best mechanisms to deliver messages to the different audiences, what frequency of education is needed, and develop messages for the specific topics that need to be addressed.

Topics were identified for public education during the development of the UFMP. These include:

- Tree preservation policies, including how to report illegal removals and trimming
- Tree planting and care, including resources available to the public
- Basics of best management practices for tree health and importance of technical expertise required for good tree work
- The relationship between healthy trees and public health and other quality of life impacts, including discussion of tree canopy expansion and equity strategies
- The important role of front and back yards in expanding available habitat through native plants and in achieving biodiversity, climate, and cooling goals
- How to water trees during periods of water restrictions and drought
- Guidance for the public and developers on tree needs: species selection, proper pruning, pest management, tree protection zones during construction, etc.

Many urban forest topics are relevant region-wide, not just within the City boundary. It is therefore important for the City to consider how, and on which topics, to collaborate with the County and the other 88 cities in the region on any urban forest education campaigns. While each city's goals may differ, information gaps on tree best practices are likely to be similar. The unified approach to the UFMP community engagement between the City and County was intended to be the first step toward this type of partnership and collaboration on urban forest health in the region.

Community-Informed Design

Projects are most successful when the tree planting components are designed in close consultation with the community. Angelenos tend to have strong opinions on trees, either in favor of or against, and frequently want to provide input on the trees included in their urban forest. This consultation should include feedback about where new trees are most needed and what characteristics are most important to the community. This allows an arborist to select the most appropriate species for the location, taking into consideration both the community's preferred characteristics and the limitations of the site.

Good projects also include iterative rounds of feedback, where the project can be refined to align with community needs and information can be shared with community members if a specific location or species is not appropriate or viable for the project. Additionally, young, newly planted trees are vulnerable to vandalism. Trees that are planted through a community-informed or community-led process have improved outcomes, as the community is more likely to feel a connection or sense of stewardship over the new trees.

Enhance Transparency Around City Roles and Decision-making

There is a widespread lack of clarity of which City department the public should contact for different tree-related requests and inquiries. Furthermore, there is a distinct need to define which urban forest management roles fall under the City's purview versus those that are the responsibility of the public. This lack of clarity often extends to the City's rules and policies governing trees, making it difficult for Angelenos to know who to call for specific issues. A primary concern for the public is the transparency and consistency of enforcement when City policies or rules are violated.

City processes for permits, decisions around tree retention or removal, tree planting, pruning, and other urban forest activities should be clear and easy to understand. Angelenos must live with the long-term consequences of these decisions, making proactive notification necessary for those in the immediate vicinity of impacted trees. Additionally, it is vital that opportunities for appeals or other public input and timelines for decision-making and action are clear to the public to ensure an understandable and fair process.

Strategies That Support Behavior Change and Social Norms

Beyond general citywide education campaigns that support an understanding of why trees are important and what they need to be healthy, the City must also invest in developing behavior change strategies and social norms around trees and appropriate tree care. Detailing the advantages of trees can be done in various ways to align their benefits with the specific needs of individuals. While an experienced urban forester can confidently select which benefits to emphasize when engaging with a specific group or person based on their immediate interests, the task is more complex when developing a broad-scale educational initiative.

Due to this complexity and desired urban forest outcomes, the City should consider the use of Community-Based Social Marketing (CBSM). CBSM was pioneered by Dr. Doug McKenzie-Mohr for environmental and sustainability-focused behavior change, which mimics successful strategies used widely in the healthcare field to guide behavior

change. CBSM is a tool for designing programming to achieve a specific end state behavior, rather than providing information or incentives that hopefully will convince people to behave differently. It begins with developing an understanding of what motivates a specific audience (i.e. what real or perceived tree benefits matter most to them) and what is keeping them from taking the desired action or behaving in the desired way (i.e. what real or perceived barriers are keeping them from doing the behavior). Once these attitudes are understood, program materials and strategies can be developed to highlight the benefits to better connect with the audience and address the barriers that currently exist.

As recommended in the design of community projects through an iterative, power-sharing process, CBSM is also a technique that has several direct feedback loops to ensure that programs and strategies actually result in change. The goal of these campaigns is first to influence individual behaviors, but the real power behind this approach is the development of social norms over time. Social norms do a better job of gaining compliance with environmental standards than regulation alone. These types of strategies that turn the tide on values and behavior should be employed if real regional change is to occur.

Appropriate Use of Volunteers and Opportunities for Community Action

Since the 1970s, volunteer opportunities have functioned as a tool to increase the stewardship of trees throughout the City. Nonprofit planting partner organizations have primarily utilized volunteer opportunities, but City departments and initiatives have also occasionally done so. Not only do volunteer activities typically add new trees through tree planting or tree care events, but they also educate residents about tree programs and basics of tree care and help participants develop an understanding of the urban forest. Angelenos taking direct action to improve the urban forest through volunteer tree planting and care is beneficial, as they are more likely to feel invested in the success of the urban forest. However, problems arise when municipal budgets for tree planting and establishment care are removed or significantly reduced because City decision-makers assume the work can or will continue solely through this type of volunteer activity.

In particular, when looking to address the issue of tree canopy equity, some of the priority geographical areas of the City face barriers to community-led tree planting and establishment care. These barriers include concerns regarding safety and legal status, future financial burdens from tree maintenance costs, or lack of significant volunteer time due to work or family commitments. Community involvement in the urban forest should be encouraged, but should not be required in order to provide adequate canopy in a

community. No other piece of City infrastructure relies so heavily on volunteer activities for its installation and upkeep. If volunteerism and the work of local community organizations are solely responsible for tree planting, the City will not achieve its canopy equity goals.

Additionally, the relationships between community organizations and the City have not always been supportive, resulting in community frustrations. Local groups that fundraise for neighborhood improvements often find themselves hindered by complex bureaucratic processes more suited to large-scale developers or other government agencies. To address this, the City needs to establish better partnership models that support external contributors. This includes providing subsidized permits, ensuring adequate City staff resources to process permit requests, and offering regular training and coordination. Furthermore, policies should be institutionalized to ensure that these collaborations persist through changes in City administration or personnel. Existing processes, staffing levels, and policies must be evaluated to ensure they facilitate, rather than obstruct, collective progress toward shared City and community priorities.

Chapter 9 Summary of Recommendations

Recommended Strategies or Actions to Address in Current or Future Implementation Plans	Strategic Plan Connections
Citywide Urban Forest Public Education Campaign	
Request contractual funding to begin the process to conduct research and develop a framework for public education campaigns, including assessing which education topics should be developed and implemented with other regional governments and which topics are City specific.	**Strategy** F-4
Collaborate with Los Angeles County and other regional partners to design and conduct public education campaigns focused on topics that increase support for trees and equitable canopy cover, understanding the interdisciplinary aspect of urban forestry, maximize individual tree health and overall urban forest health, and provide guidance for the public and developers on tree needs.	**Strategy** F-4
Conduct research and pursue processes to establish reliable funding sources for public education related to urban forestry. (See also Chapter 4: Equity and Canopy Expansion)	**Strategy** G-4
Conduct public education campaigns citywide on a variety of urban forestry topics, including those related to public infrastructure and public health, sustainability and climate, and tree care and management. (See also Chapter 7: Tree Maintenance)	**Strategy** F-6

Recommended Strategies or Actions to Address in Current or Future Implementation Plans	Strategic Plan Connections
Community-Informed Design	
Include an iterative process for consulting the community on design for all tree planting projects.	**Strategy** F-3
Fund urban forest management activities by providing sufficient staffing levels and contractual funds to responsible City departments, including UFMP implementation, tracking, and community engagement activities.	**Strategy** G-4
Foster strong collaboration between City and external partners, such as nonprofit organizations, to involve and support neighborhood knowledge and capacity in urban forest projects by conducting engagement that is inclusive and accessible for community members, including the use of trusted messengers and locations, language access, and use of materials and methods that are culturally appropriate and allow for participation across multi-generational audiences.	**Strategy** F-1
Enhance Transparency Around City Roles and Decision-making	
Clearly define and publicly record responsibility for urban forestry roles of different City departments for the public.	**Strategy** F-3
Design and publish a centralized City urban forest website that is easy to access, clear and well-formatted and acts as a centralized hub that clearly describes the City's urban forestry goals and vision and directs the public to all City urban forestry resources.	**Strategy** D-1
Take action to ensure opportunities for public feedback and input on urban forestry decisions are clear and accessible.	**Strategy** F-3
Assess the best method and pursue creation of a communication process to inform the public about urban forest activities happening in their neighborhood, and to set clear expectations and understanding of input opportunities and processes, when appropriate. See Chapter 6: Tree Planting and Establishment Care, Chapter 7: Tree Maintenance, and Chapter 8: Tree Preservation for specific action recommendations on each topic.	**Strategy** E-5
Strategies That Support Behavior Change and Social Norms	
Assess methods for developing behavior change strategies and social norms around trees and appropriate tree care, including consideration of Community-Based Social Marketing.	**Strategy** F-4
Appropriate Use of Volunteers and Opportunities for Community Action	
Establish and enhance partnership models to facilitate external contributions and support for tree planting, community engagement, and other urban forest management activities, as appropriate.	**Strategy** F-1
Ensure policies are institutionalized such that City administration or staffing changes do not unduly impact the ability for nonprofit organizations and community groups to support the City's urban forestry efforts.	**Strategy** E-1

DRAFT

Chapter 10: Funding the Urban Forest

As is discussed throughout this UFMP, on-going resources are required to create and maintain a healthy and sustainable urban forest that maximizes the benefits received and minimizes the risks and liabilities from urban forest assets. The City invests only a quarter of what is needed for street and park trees to achieve best practices annually.

This need for increased funding has been a persistent problem for decades. In 1993, the Urban Forest Task Force report found funding for tree planting and trimming to be insufficient. The 2018 First Step: Developing an Urban Forest Management Plan for the City of Los Angeles report included as its first key finding that "trees are not valued in City Budget and Planning." It continued to say that "providing best practice maintenance levels has not been a high priority, despite the upward-trending, City-settled tree damage payouts that reached nearly $4 million in 2017." According to the City Controller's City of LA Liability Claims Dashboard, annual payout amounts related to trees have ranged from $3.17 million to $17.73 million between Fiscal Year 2019-20 and Fiscal Year 2024-25 (see Appendix R for more details).The 2023 update to the City Controller's Tree Trimming and Maintenance Audit also noted insufficient funding for street tree trimming.

The City is unable to meet basic levels of care and service for trees due to resource constraints within all four pillars of urban forest management - planting, maintenance, preservation, and community engagement. For this reason, one of the four goals within the UFMP is focused on sustainable funding levels for urban forest activities. As living, growing infrastructure that requires time to mature to full benefit potential, the urban forest is even more vulnerable when financial constraints result in deferred maintenance or inconsistent staff oversight.

10.1 Funding Assessments

Urban Forest Financing Study (UFFS)

An Urban Forest Financing Study (UFFS) was completed in 2022 to provide specific recommendations on this critical issue. This study determined that the City was spending one quarter of what is needed to implement best practices and evaluated a broad variety of municipal funding mechanisms the City might use to cover the gap in funding. Based on that assessment, the UFFS recommended the City increase funding by leveraging three different funding streams. This included a modest increase to the General Fund

allocation, the development of a special assessment approved through a local ballot measure, and combination of smaller sources, including updating tree-related fees to ensure cost recovery, implementing or updating fines, and utilizing grant and philanthropic sources to augment the two larger funding sources.

A more detailed overview of the UFFS can be found in Appendix S.

URBAN FOREST FINANCING STUDY RECOMMENDATIONS

The UFFS recommends the following to fill the funding gap:

"Filling an $88M operating gap, regardless of phasing, requires a sizeable, foundational funding source. A countywide special property tax is the greatest opportunity to generate significant funding and use those funds equitably and flexibly. To support the assessment's appeal to voters, the annual allocation from the general fund could be increased modestly to match the taxpayer contribution. Management of the urban forest according to best management practices creates cost-savings for the City, reducing the number of trip and fall cases, improving public health, and mitigating climate risk. Quantification of this cost savings will be discussed and further analyzed in the UFMP*.

With a strong base of funds for urban forest management, a combination of other, smaller sources should be layered to complete the funding stack. In particular, fees and fines are not currently reflective of market value or staff time, and should be restructured to fully recover costs. Contributed income, including both grants and individual and corporate contributions, can help match municipal spending, and should be coordinated through a regional trust for urban forestry to maximize funds, outreach, and management.

Los Angeles should explore long-term, non-traditional funding sources to better leverage the nexus between urban forest maintenance and its benefactors. Sources may include insurance financing in partnership with health insurance companies interested in mitigating future public health risk due to extreme heat, carbon trading, and bringing in companies that see reduced costs due to a healthy urban canopy."

** This action was outside the scope of this UFMP.*

DRAFT

StreetsLA Budget Report Back on Tree Trimming

The City Council requested a report back from the Department of Public Works (Public Works) Bureau of Street Services (StreetsLA) as part of the Fiscal Year 2025-26 Adopted Budget (CF 25-0600-S111) assessing the resources needed to meet a five-year street tree trim cycle. This report back was completed and transmitted to the City Council in November 2025. It assessed three strategies: using only City personnel, combining City and contracted crews, or relying entirely on contractors. Each approach necessitates a substantial increase in annual street tree trimming funding. The report recommends the second hybrid model. Under this option City crews would continue to prune 40,000 street trees each year as well as respond to emergency needs and contracted crews would prune roughly 92,200 street trees annually. StreetsLA estimates this would require an additional $27.66 million for contracts and $1.16 million annually for City staff to provide high-quality oversight. The first and third options both have higher annual funding needs.

10.2 Progress Requires Consistent, Reliable Funding

Urban forest funding as a whole needs to increase drastically in order to achieve the UFMP goals. The goals and intended outcomes of the UFMP cannot be attained without the staff, equipment, and other resources required for the City to take action to address the strategies outlined in the Strategic Plan. As detailed in the UFFS, there are a number of funding sources that can support the UFMP's goals. Increases in General Fund allocations is one method. However, General Fund allocations alone cannot provide the level of funding needed. Assessing and increasing fees and fines and taking action on a ballot measure to fund all aspects of urban forest management must also be addressed.

Many of the concepts contained within the Strategic Plan or as recommended actions within the UFMP chapters are not particularly complex and have high potential impacts. However, they are not included in the first five-year Implementation Plans due to the severe limitations of what can be done at current staffing levels and with existing resources. Achieving the vision of the UFMP, and overall health and success of the urban forest, is contingent on consistent and reliable funding.

Many of the strategies and actions within the UFMP pertain directly to City actions, and therefore require an increase in City staffing resources for success. The main recommendation of the UFMP is to increase funding for City staff within City departments responsible for this work. This is especially true of groups responsible for direct tree asset management. Due to chronic hiring limitations and tight City budgets, it may also be necessary to establish a baseline level of internal City staffing with a plan to

utilize contracted services during fiscal years with higher budget resources to quickly expand capacity. Activities such as tree trimming, tree and stump removals, and other maintenance work are good examples of work that can be expanded in this manner. However, managing contract tree work is a separate work program from in-house crew deployment and cannot be accomplished without sufficient staff and structure to execute and manage contracts and direct and oversee the field work.

Other strategies and actions within the UFMP can move forward through outside support, such as nonprofit organizations or contractual services, with funding either coming from external sources or from City programs. For some external funding sources, the City must assess and address barriers that impede the City or external partners from fully utilizing those funds to support urban forestry work. For some barriers, increasing funding for City staff responsible for oversight may be necessary as described above, while other barriers may be overcome through process adjustments or other means.

While not all funding must come from the City budget and not all staffing resources must be housed within the City, an overall increase in funding and resources for managing the urban forest is needed. As the budget landscape for the City can vary drastically over time, it will be important for the Office of Forest Management (OFM) to provide annual and as-needed assessments of the current status and needs for urban forestry funding for the City's decision-makers.

Next Steps for the City

To appropriately and consistently fund urban forest management activities, the City must take action on the UFFS recommendations, prioritize activities that increase efficiencies in order to reduce costs, ensure City processes can leverage external partnerships, and continue to consider new funding approaches. A combination of strategies, deployed together and consistently, can address the funding gap and support the City in moving towards a sustainable urban forest. Below are nine recommendations on funding the urban forest that City decision-makers should consider implementing in order to achieve the goals of this UFMP.

Address UFFS Recommendations

The UFFS laid out a layered approach to filling the funding gap for City departments. This includes:

1. **Determine the appropriate funding measure**, whether a standalone ballot measure (as described in the UFFS) or as part of a larger infrastructure or parks funding measure. The next step for this recommendation is to identify and allocate resources to explore the development of the funding measure. This will include the

appropriate polling and research needed to structure the funding measure for successful adoption by the voters and implementation by City staff if appropriate.

2. **Adopt an updated fee structure and ensure fees are updated regularly**, through annual Consumer Price Index (CPI) adjustments built into the fee structure. In response to the UFFS findings, StreetsLA secured funding and conducted a fee study of permit-related tree activities. Many of these activities are currently covered by no-fee permits or fees that have not been updated in several decades. Approval for StreetsLA's proposed fee updates will be through the Board of Public Works (BPW). Ensuring that Public Works secures full or partial cost-recovery on permit oversight for tree related work is essential in supporting the department's budget. This is also consistent with the use of permit fees for City staff review of projects.
3. **Develop and adopt fines for urban forest code and policy violations.** The StreetsLA fee study also explored options and potential justifications for increasing or adding fines related to various tree violations. However, additional assessment is needed to ensure a fine structure that aligns with the City's ability to assess fines and be enforceable by City staff.
4. **Commit to a sustained increase in the baseline annual General Fund allocation.** A modest and sustained investment is recommended alongside those listed above as it can be a more immediate increase, while the other approaches are in development. These General Fund investments can support developing a baseline structure that allows the City to reduce costs through efficiencies, as detailed in the next section.

Leverage External Funding

While the UFMP recommends that the City adequately and consistently fund urban forest activities through the broad funding mechanisms outlined in the UFFS, the City will also benefit from taking steps to leverage opportunities for additional external funding and explore new funding mechanisms when possible. While the opportunities posed by California State and federal grants, as well as partnerships with philanthropic and nonprofit partners are understood and appreciated, the City is not currently structured to easily take advantage of these opportunities.

5. **Be prepared to apply for and implement urban forest grants.** Per City policy, in order to receive permission to apply for grants City departments are required to identify available funds to utilize for front funding, as most grants funding on a reimbursement model. Identifying City funds that can be utilized in this manner is difficult and can become an insurmountable obstacle for City staff's ability to meet grant application deadlines. City decision-makers could consider establishing a

fund or process improvement to address this challenge. Additionally, the City's slow and cumbersome contracting processes can delay or prevent grant funds from being spent quickly and efficiently. This issue could be addressed by adding additional City staff with strong contracting experience to City department groups that leverage grant funding or by considering improvements to the City's contracting process as a whole.

6. **Address barriers for external partners to conduct successful tree planting projects within the City.** External partners report that the City requirements for permits, paired with significantly limited staff resources for timely permit issuance, creates delays and uncertainties for tree planting projects. Addressing this issue benefits the City as these groups bring additional external funding to projects within the City. Another roadblock that impedes grant funded projects comes from limitations from the funders on timeframe for establishment care. Grants often only cover two to three years of establishment care, rather than the five years that are needed to ensure successful establishment in the semi-arid Los Angeles region. The City could consider investments to address these issues to fill the gap and take advantage of the funding available for much of the planting and establishment care work. Allocating City staff resources for watering grant funded trees after the end of the grant period is a small investment that would result in more successful projects and greater ability to leverage these grant resources for tree planting activities. Lastly, some elements in City standard plans are not eligible expenditures within urban forest grants. The City could consider similarly covering these costs for grant-funded projects to ensure grant funding opportunities are leveraged for the benefit of the City.
7. **Provide leadership and coordination related to urban forest grant opportunities.** OFM already coordinates closely with Los Angeles County on grant opportunities and provides limited support to nonprofit organization partners. The benefits from increased internal and external City coordination not only aligns with UFMP goals but also allows City staff to contribute to the development of projects and limits duplicative work. This coordination should include providing letters of support for grant applications written by partners that align with City goals and practices.
8. **Advocate in support of urban forestry grants that support gaps in Los Angeles' urban forest.** Some urban forestry activities are hard to cover through grant funds due to the funder eligibility restrictions. This includes activities such as dead tree removal and tree trimming. The City will benefit from continuing to give feedback on grant guidelines to encourage funders to appropriately include needed expenses that are impacting urban forestry in Los Angeles.

DRAFT

9. **Explore novel funding sources.** OFM has spent some time exploring additional, novel funding sources as they have come up. This has included the potential of using carbon markets or taxes to provide some funding for existing trees. It has also included exploration of developing parametric insurance products for known events that are infrequent but significantly impact the urban forest, like emergent pests and diseases or major storm events. Landscape maintenance districts are included in the Los Angeles Municipal Code (LAMC) and could also be considered, though there are equity concerns with implementing such districts as a central funding mechanism. The exploration of these and other novel funding concepts should continue and could be included in future Implementation Plan reports or annual budgetary evaluations provided by OFM.

Chapter 10 Summary of Recommendations

Recommended Strategies or Actions to Address in Current or Future Implementation Plans	Strategic Plan Connections
Provide annual and as needed reports on urban forestry funding needs and gaps, include recommendations to City policy-makers based on UFMP priorities.	**Strategy** D-6
Identify and allocate resources to begin exploring the development of a funding measure to support the City's urban forest efforts. Consider the appropriate level of collaboration with Los Angeles County.	**Strategy** G-1
Take action to approve the StreetsLA fee study to increase permit fees to allow for partial or full cost recovery for oversight services UFD provides for various street tree and other urban forest activities.	**Strategy** G-2
Assign staff and allocate resources to assess an appropriate fine structure for tree violations to support deterrence and ensure the fine structure aligns with the City's legal ability to assess the fines and is enforceable by City staff.	**Strategy** G-2
Increase the baseline General Fund allocations within the City budgeting process for City departments responsible for urban forest activities. See Chapter 3: History and Governance of Trees in Los Angeles, Chapter 4: Equity and Canopy Expansion, Chapter 6: Tree Planting and Establishment Care, Chapter 7: Tree Maintenance, and Chapter 8: Tree Preservation for specific recommendations for increases.	**Strategy** G-4
Establish a fund or create a standard, repeatable process to allow City departments access front funding for grants that provide funding only through reimbursement payments.	**Strategy** G-3
Consider adding additional City staff with strong contracting experience to City departments in groups that leverage grant funding for urban forest projects to aid in project development and administration.	**Strategy** G-3
Consider providing urban forest investments to fill the gap created by urban forest grants that provide funding for less than five years of establishment care. This would allow City departments and external partners to still leverage those funding sources available for planting and limited establishment care work.	**Strategy** G-3

Recommended Strategies or Actions to Address in Current or Future Implementation Plans	Strategic Plan Connections
Lead and promote regular coordination between City departments and external partners to support and enhance grant funded urban forest projects, including by sharing the City's tree planting priorities, known future grant funding opportunities, and insights from the City departments ultimately responsible for long-term tree asset management, allowing City staff to contribute to project development, and by providing letters of support for grant applications written by partners that align with City goals and practices.	**Strategy** F-1
Take action on other UFMP recommendations to support addressing barriers that impede the City or external groups from accessing additional resources. Recommendations include those related to streamlining processes and increasing staffing levels to support permitting and oversight, especially for planting activities such as appropriate staffing levels for street tree permitting, and increasing City capacity for maintenance of new, grant funded assets. See Chapter 6: Tree Planting and Establishment Care and Chapter 7: Tree Maintenance: for related recommendations.	See Chapters 6 and 7 Summary of Recommendations for additional actions and strategy connections.
Continue to advocate for state and federal funding to include important urban forestry activities in addition to tree planting, such as full five years of establishment care, maintenance, education, and outreach. (See also Chapter 6: Tree Planting and Establishment Care)	**Strategy** G-3
Continue to explore novel funding streams to support urban forest management as new ideas and opportunities arise. Include research and work done to explore novel funding stream ideas in future Five-year Implementation reports and/or regular budgetary evaluations.	**Strategy** G-6

DRAFT

50-Year Strategic Plan

COMPONENTS OF THE STRATEGIC AND IMPLEMENTATION PLANS

Goal: Broad, visionary, forward-thinking, ambitious, 50-year timeframe

Outcome: Smaller, more specific goals the City aims to achieve, that measure progress towards the larger goals

Strategy: A connected group of actions taken in an organized manner to support achieving the City's outcomes and goals

Action: Specific steps taken as part of implementing a strategy

Goals and Outcomes of the Strategic Plan

The UFMP establishes four ambitious, high-level goals and related outcomes, paired with a 50-year Strategic Plan that details the long-range strategies and actions needed to achieve success.

GOAL 1: EQUITY, BENEFITS, AND SERVICES

Our urban forest and the essential ecosystem services and life-supporting benefits it provides are equitably distributed throughout the City

1.1 Every neighborhood has a minimum of 15% tree canopy cover and city-wide there is 25% tree canopy cover.
1.2 All Angelenos have equitable access to the urban cooling, air quality, and other public health benefits of trees.
1.3 All City departments that impact project design or delivery consider and include high-quality tree infrastructure, as appropriate for the project context, in support of the City's tree canopy goals.
1.4 The urban forest supports biodiversity goals and overall ecological health in the region through innovative site and project design, context-specific species selection, and maintenance practices.

DRAFT

1.5 The urban forest supports the City's goals related to carbon and energy through services provided directly by trees and through the delivery of urban forest management programs.

GOAL 2: BEST MANAGEMENT

The City is a leader in urban forest management, using current science, data, and best management practices to shape policies, programs, and practices related to trees

2.1 City-managed tree inventories are stable, healthy, and climate resilient.
2.2 Privately managed trees are healthy and climate-resilient.
2.3 Tree protection policies are strong, clear, and enforced.
2.4 Policies and decisions are data-driven, science-informed, and organized.
2.5 City staff are well equipped to implement current and emerging industry best practices.
2.6 Trees are resilient to periods of drought and water restrictions.

GOAL 3: TRANSPARENCY, EDUCATION, AND ENGAGEMENT

Angelenos have a clear role in guiding urban forest priorities and design, can easily understand and access City processes related to trees, and understand the urban forest's importance and needs

3.1 Tree related decision-making processes and standards are clear to the public.
3.2 Communities are involved in inclusive design of the urban forest and the City actively and regularly conducts urban forestry community public engagement.
3.3 The City regularly engages in urban forest public education campaigns.

GOAL 4: FUNDING

City policies and programs related to our urban forest are sustainably funded and resourced

4.1 The City provides sufficient funding for urban forest management, including equity-focused canopy expansion, community engagement, and education.
4.2 The City's tree planting and maintenance programs have reliable funding.
4.3 All departments responsible for work related to tree preservation have sufficient and reliable funding for public and protected private trees.
4.4 Private property tree planting and maintenance programs have reliable funding.
4.5 The City regularly participates in state, federal, and other grant and external funding opportunities.

DRAFT

Overview of Strategic Plan Categories

A. Plan for Canopy and Shade Across City Departments

1. Plan for neighborhood canopy cover expansion
2. Embed urban forest equity in planning and policy
3. Plan for large stature tree species
4. Create canopy targets for public right-of-way and capital projects
5. Create canopy targets for development projects
6. Plan for conservation and mitigation landbanking
7. Develop new parks and open space
8. Alight with climate resilience, urban cooling, and public health goals and planning
9. Support watershed management
10. Support biodiversity and ecology
11. Support healthy soils
12. Plan for fire and disaster response

B. Grow New Trees

1. Prioritize street tree planting to increase equitable distribution of canopy
2. Increase appropriate use of native tree species
3. Support availability of desired tree species and high quality nursery stock
4. Enhance street tree planting permit process
5. Support private property tree planting

C. Maintain and Preserve Existing Trees

1. Address backlog of tree maintenance and shift to 5-7 year inspection cycle
2. Maintain comprehensive tree maintenance program
3. Enhance street tree pruning oversight
4. Reduce improper tree pruning and removals
5. Support trees during drought and after disasters
6. Maintain Park Tree Heritage Policy
7. Support private property tree care
8. Update tree preservation ordinances
9. Enhance oversight and enforcement of protected private property trees and shrubs
10. Support street tree retention and public right-of-way compliance
11. Align brush clearance and protected tree policies
12. Enhance urban forest considerations in park capital projects
13. Increase guidance and education for private property tree preservation

DRAFT

D. Track Progress and Pilot Innovation Using Data and Metrics

1. Implement the UFMP
2. Develop pathways for innovation and pilot projects
3. Assess and utilize tree inventory stability metrics
4. Assess canopy and land cover and set canopy targets
5. Track urban forest activities
6. Track and report on urban forest funding
7. Inventory protected private property trees and shrubs
8. Collaborate with research

E. Develop and Maintain City Policies

1. Assess and update urban forest management policies, regulations, and programs
2. Conduct training for best practices
3. Create job classifications
4. Ensure high-quality contracted tree work
5. Enhance communication and notification process
6. Create and maintain Urban Forest Manuals
7. Conduct street tree master planning
8. Create and maintain Tree Risk Management Plans
9. Develop and Implement Integrated Pest Management
10. Plan for biomass utilization
11. Reduce local carbon footprint in tree programs
12. Assess and update non-urban forest specific City policies and processes

F. Collaborate, Educate, and Engage

1. Enhance urban forest coordination and collaboration
2. Build strong relationships with large land managers
3. Create community engagement process
4. Create framework for urban forest public education campaigns
5. Provide guidance and education materials
6. Conduct public education campaigns

G. Establish Evergreen Funding Mechanisms

1. Explore ballot measure development
2. Update tree related fees and fines
3. Enhance utilization of state and federal grant funding
4. Increase General Fund urban forest allocations
5. Elevate urban forest needs in City budget process
6. Explore novel funding streams

DRAFT

50-Year Strategic Plan: Strategies and Actions for Inclusion in Current or Future Implementation Plans

Strategies and Actions	Related Chapter	Implementation Plan Inclusion
A. Plan for Canopy and Shade Across City Departments		
A-1 Plan for Neighborhood Canopy Cover Expansion Conduct neighborhood level canopy cover expansion planning that is equity-based, data-driven, and informed by community feedback. **Priority Recommendation**		
a. **Framework Development** Develop a comprehensive framework for neighborhood level canopy cover expansion planning that supports consideration of activities in all four pillars of urban forest management and each neighborhood's specific capacity and opportunity for canopy on private property, in parks, and in public right-of-way spaces.	Ch 4	Yes
b. **Integration with Other City Planning Processes** Assess existing City Planning processes that dovetail with neighborhood level canopy cover expansion planning that will support efficiencies and integrate canopy planning with other land use planning.	Ch 4	Yes
c. **Assess Resource Needs** Assess what additional resources will be required for successful implementation of neighborhood level canopy cover expansion planning.	Ch 4	
d. **Community Engagement Events** Conduct robust community engagement at the neighborhood level as part of canopy expansion planning implementation and utilize an iterative design process to center urban forest activities on the priorities and needs of the community.	Ch 4	
A-2 Embed Urban Forest Equity in Planning and Policy Integrate urban forest equity into infrastructure planning, land use regulations, and all levels of City policy.		
a. **Integrating Equity** Integrate urban forest equity programs and metrics into long-range planning efforts within the City, such as climate and environmental justice initiatives, capital improvement programming, park or open space acquisition and planning, and General Plan Elements.	Ch 4	Yes
b. **Use the Tree Canopy Equity Priority Index** Embed and utilize the Tree Canopy Equity Priority Index in prioritization and policy efforts to guide canopy expansion activities or policies impacting the urban forest.	Ch 4	Yes
c. **Tree Canopy Equity Priority Index** Continue to update and iterate upon the Tree Canopy Equity Priority Index as new datasets become available and in collaboration with other City departments to ensure alignment with use needs.	Ch 4 Ch 6	Yes

DRAFT

Strategies and Actions	Related Chapter	Implementation Plan Inclusion
A-3 Plan for Large Stature Tree Species Develop standards, decision-making criteria, and recommendations to prioritize built environment redesign and depaving that expands existing spaces or creates new space to plant large stature tree species within City capital projects, public right-of-way design, and policies impacting land use.		
a. **Integrate Equity into Infrastructure and Land Use Planning** Integrate urban forest equity considerations into planning for infrastructure and land use regulations to ensure trees are proactively accommodated, including planning for adequate planting and grow space.	Ch 4	
b. **Implementation Pathways for Innovative Designs** Develop implementation pathways for alternative design considerations, including criteria for use, standard plans, and permitting mechanisms, that allow for large space for trees in the public right-of-way.	Ch 4 Ch 6	
c. **Space for Native Tree Species** Support spaces in the public right-of-way that are appropriate for native tree species by developing design standards and prioritizing development of locations for large stature species.	Ch 2	Yes
A-4 Create Canopy Targets for Public Right-of-Way and Capital Projects Develop minimum canopy cover targets for shading from tree canopy cover for the public right-of-way and different capital improvement project types to provide a flexible guide to project designers that supports high quality canopy outcomes, with specific consideration for sidewalks, transit stops, and other areas with high pedestrian use. **Priority Recommendation**		
a. **Level of Canopy and Public Health** Develop criteria for connecting canopy cover and public health metrics in order to establish necessary canopy levels to positively impact public health.	—	
b. **Prioritization for Trees in Public Right-of-Way** Determine prioritization criteria for various public right-of-way assets within different street typologies to allow for clearer decision-making for tree planting locations and street tree removal or retention.	Ch 8	Yes
c. **Canopy Targets for Capital Projects** Establish and utilize minimum canopy cover targets for different capital improvement project types that provide a flexible guide for project designers to include increased canopy in projects where appropriate.	Ch 4	Yes
d. **Canopy Targets for the Public Right-of-Way** Establish and utilize minimum canopy cover targets for the public right-of-way based on categories such as street typology. This should include specific consideration for sidewalks, transit stops, other areas with high pedestrian use, and sites where constraints limit canopy expansions.	Ch 4 Ch 6	Yes
e. **Support Inclusion of Urban Forest Metrics in Grant-funded Capital Projects** Pursue requirements for grant-funded capital projects to include urban forest metrics in project description, design, and funding.	—	

DRAFT

Strategies and Actions	Related Chapter	Implementation Plan Inclusion
f. **Public Right-of-way Conversions** Include canopy in public right-of-way conversions by creating and implementing a system for including tree planting as part of sidewalk widening efforts and when temporary non-car transformations of street areas are made permanent.	Ch 6	
A-5 Create Canopy Targets for Development Projects Conduct research and pursue development and implementation of requirements for development projects to meet a minimum canopy target, either onsite or through payment of fees to support canopy expansion off-site.		
a. **Trees and Housing** Assess the most effective ways to provide sufficient space for trees while also supporting increased housing within the City.	Ch 6	Yes
b. **Canopy Targets** Consider a required minimum canopy cover by land use type to incentivize retention of existing trees to meet such a canopy requirement.	Ch 8	
c. **Policies to Incentivize and Enforce Canopy Targets** If canopy standards are set for different land use types, assess the best policy to enforce and incentivize meeting those targets, including strategies to support proper tree trimming practices for different tree types (such as street and private property).	Ch 7	
d. **Assessment of Waived Open Space** Requirements Assess the conditions under which development projects are allowed to waive open space requirements related to trees.	—	
A-6 Plan for Conservation and Mitigation Landbanking Determine the best strategy for adding canopy that cannot be accommodated on a specific site, including both new tree planting requirements and requirements from tree removals. Strategic assessment could include identifying geographically specific sites for mitigation landbanks or landscape buffer zones, utilizing and developing programs for existing City land, leveraging partnerships with land conservancies and other trustee agencies, or other strategies, as appropriate.		
a. **Equitable Distribution of Conserved and Restored Land** Identify locations in each ecotope or other appropriate geographic units for mitigation landbanking and restoration activities to support canopy increase, consider partnership with land conservancy or other trustee agencies.	—	
b. **Mitigation Landbanking** If a landbanking program is initiated by the City, conduct research and create a process for planting required trees or conducting habitat restoration in these areas when required trees cannot be accommodated on site.	—	
c. **Conserving or Creating Mitigation Landbanks on City Owned Properties** Identify vacant or surplus parcels in the General Services Department (GSD) real estate portfolio and Los Angeles Department of Water and Power (LADWP) properties that may be utilized to maintain tree canopy or support increase if established as mitigation landbanks or conservation easements. Explore processes to utilize the identified properties to support canopy increase and enhanced biodiversity through habitat restoration activities. Consideration should include partnering with local conservation districts and authorities.	—	

DRAFT

Strategies and Actions	Related Chapter	Implementation Plan Inclusion
A-7 Develop New Parks and Open Space In alignment with the Park Needs Assessment, identify where new, high quality park space is needed in communities that fall below the 15% neighborhood canopy target and pursue strategic partnerships, land acquisitions, as appropriate, and development of new park spaces that support canopy increase in these communities.		
a. Utilize existing City assessments and analysis to identify where new, high quality park space will support canopy increase for communities that fall below the 15% neighborhood canopy target. This should consider data such as the Park Needs Assessment and City Planning's Tree Canopy Equity Priority Index.	—	
b. Pursue strategic partnerships, land acquisitions, as appropriate, and development of new park spaces that support canopy increase in identified communities.	—	
A-8 Align with Climate Resilience, Urban Cooling, and Public Health Goals and Planning When developing City plans, targets, and goals, implementing projects, or adopting policies related to climate resilience, urban cooling, and public health outcomes, consider the role of trees in addressing these issues and ensure alignment with UFMP recommendations.		
a. **Plan for Climate Change** Consider necessary adjustments to planting design, irrigation strategies, maintenance practices, and protection of mature trees that may be required due to anticipated changes in temperature, precipitation patterns, wildfire risk, pests, and extreme weather.	Ch 2	
b. **Heat Action and Resilience Plan (HARP)** Align implementation of the UFMP and HARP implementation between the relevant City departments.	Ch 2	Yes
c. **Carbon and GHG Accounting** Align implementation of UFMP and City targets related to carbon and greenhouse gas accounting, including consideration of urban forest management actions and tree assets and the role both play in carbon sequestration.	Ch 2	Yes
A-9 Support Watershed Management Assess best methods for designing projects that simultaneously improve hydrologic function and support long-term tree health and coordinate across jurisdictions in the region to achieve this for the City's watersheds.		
a. **Riparian Canopy Increase** Consider the best way to support increasing tree canopy in riparian areas, as appropriate.	Ch 2	
b. **Stormwater** Conduct research to determine the most efficient and cost-effective strategies to ensure stormwater is directed to trees, where possible, to decrease supplemental irrigation needs and increase water capture and aquifer replenishment throughout the City, along with improving tree health.	Ch 2	
c. **Recycled Water** Use Explore the feasibility of utilizing the region's recycled water resources to support watering trees.	Ch 2	

Strategies and Actions	Related Chapter	Implementation Plan Inclusion
A-10 Support Biodiversity and Ecology When developing City plans, targets, and goals, implementing projects, or adopting policies related to trees or biodiversity and ecology, ensure there is alignment between the goals and approaches for all disciplines.		
a. **Ecological Context** Incorporate consideration of ecological context into urban forest planning for projects designed by the City, nonprofit planting partners, or other outside entities.	Ch 2	Yes
b. **Habitat Patches and Corridors** Identify existing and potential habitat patches and corridors and assess the most appropriate methods for protecting and expanding these areas.	Ch 2	
c. **Biodiversity Program** Maintain a strong internal team to develop biodiversity programs, provide technical assistance to City departments, engage and educate the public and provide regular reporting on the LA Biodiversity Index. Consider restoring funding for the Public Works Bureau of Sanitation and Environment (LASAN) Biodiversity Program team as a first step.	Ch 2	
d. **Plan for Infrastructure that Supports Natural Systems** Consider the best processes for the City to design infrastructure that works with natural systems, including the best method for considering ecological function early in planning stages.	Ch 2	
A-11 Support Healthy Soils When developing new plans and policies related to healthy soil, ensure that tree-related policies are updated to reflect new guidance or define implementation pathways.		
a. **Protections During Construction** Support healthy soils through requirements for strong tree protections during construction that preserve root zones around mature trees and limit soil compaction.	Ch 2	Yes
b. **Increasing Organic Matter** Support healthy soils by utilizing mulch or other means to increase organic matter during tree planting and subsequent establishment care, and integrating soil restoration into planting, capital improvement, and habitat restoration projects.	Ch 2	Yes
c. **Cross-disciplinary Collaboration** Support healthy soils through collaboration between urban forest managers and other disciplines (such as landscape architecture, engineering, watershed management, and ecological restoration).	Ch 2	
A-12 Plan for Fire and Disaster Response Assess and create or update standard operating procedures for how trees are incorporated into the City's preparation for and response to wildfires, urban fires, and other disaster response, ensuring urban forestry best practices are incorporated.		
a. **Disaster Response Planning** Assess disaster response plans for inclusion of trees or the urban forest as part of the recovery phases.	Ch 2	
b. **Fire Response** Create and adopt standard operating procedures for trees as part of the City's response to wildfires and urban fires.	Ch 2	

Strategies and Actions	Related Chapter	Implementation Plan Inclusion
c. **Fire Preparation Policies** Support nuanced fire preparation policies that allow for tree canopy in urban areas that are within high fire severity zones.	Ch 2	Yes
B. Grow New Trees		
B-1 Prioritize Street Tree Planting to Increase Equitable Distribution of Canopy For all street tree planting programs, align focus areas with the Tree Canopy Equity Priority Index and prioritize planting trees that support public health and climate resiliency, such as trees shading pedestrian corridors and creating buffers for vulnerable human populations.		
a. **Utilization of Tree Canopy Equity Priority Index** Provide information and access to the Tree Canopy Equity Priority Index to support and allow City departments to utilize the Index for prioritizing focus areas for tree planting projects and policies.	Ch 6	Yes
B-2 Increase Appropriate Use of Native Tree Species Conduct research and pursue development and implementation of strategies to increase the use of native tree species in appropriate spaces, such as on private property and in open spaces. Pursue avenues to embed strategies in appropriate City policy and include process for ongoing re-assessment. Create and implement a plan to support creation and retention of habitat patches and corridors throughout the City.		
a. **Species Palettes for Yard Tree Program** Update the list of trees available through the Los Angeles Department of Water and Power (LADWP) Tree Planting yard tree program and program materials to include and promote tree and shrub species native to Los Angeles as well as fruit trees, as feasible. Assess the best way to expand local seed collection and propagation as part of this program.	Ch 6	Yes
b. **Tree Species to Support Ecosystems** Develop an understanding of which tree species support native species and ecosystem services for each Ecotope and create recommendation lists for each Ecotope, including consideration of do not plant lists and species to prioritize planting.	Ch 2	
B-3 Support Availability of Desired Tree Species and High Quality Nursery Stock Pursue avenues to increase availability of locally propagated, high quality nursery stock and tree species that are desired for planting but not readily available.		
a. **Update Current Procurement Process** Improve plant procurement process through a prequalified nursery list and/or contract growing to allow for a wider selection of species, high-quality nursery stock, and increased local economic opportunity.	Ch 6	
b. **Nursery Specifications** Assess and update existing or adopt new Nursery Stock Specifications for use across all City departments procuring and planting trees, including adding root health, plant pathogen control, and local genetic diversity requirements and consider requiring the usage of planting containers that use air pruning to prevent girdling roots and other new and emerging nursery technologies.	Ch 6	
c. **Support and Create Municipal Nurseries** Consider working with regional partners to establish a network of municipal nurseries on vacant and underutilized public sites. Perform assessment of City-owned and -managed facilities and properties to determine whether any can be used for additional nursery and workforce development activities.	Ch 6	

Strategies and Actions	Related Chapter	Implementation Plan Inclusion
B-4 Enhance Street Tree Planting Permit Process Assess updates and streamlining to the permitting process for outside entities to plant street trees, including aligning with City standards, creating efficient workflows, and supporting additional investments in the urban forest through nonprofit grants and activities.		
a. **Streamlined Permitting Process** Assess and implement a streamlined process for issuing street tree planting permits that provides necessary oversight for planting sites and compliance with permit requirements, efficiently uses Public Works Bureau of Street Services Urban Forestry Division (UFD) staff time, and also supports external planting partners in receiving permits in a clear, straightforward, and timely manner. Ensure this process includes mechanisms for closing out planting permits and adding or updating the City inventory with newly planted trees and un-planted sites.	Ch 6	Yes
B-5 Support Private Property Tree Planting Enhance enforcement of private property tree planting requirements, expand programs to support ongoing private property tree planting, and provide educational resources for recipients to support planting the right tree in the right place.		
a. **Enhanced Residential Tree Planting Programs** Evaluate and expand Los Angeles Department of Water and Power (LADWP) Tree Planting Program's Pilot Private Property Planting Program. Track effectiveness of the pilot and consider expansion of the program strategically in areas within the City where canopy expansion is particularly challenging or dependent on private property interventions.	Ch 6	Yes
b. **Education on Native Trees and Plants for Residents or Developers** Provide additional educational resources for residents and developers on native tree and plant species, particularly around their selection, planting, and care.	Ch 6	
c. **Evaluate Current Development Project Tree Planting Requirements** Evaluate current tree planting requirements for different development project types, including whether each requirement is being regularly utilized, is clear and feasible in the City's development process, and is being enforced.	Ch 6	
d. **Enforcement of Private Property Tree Planting Requirements** Consider most effective ways to improve enforcement of private property tree planting requirements to ensure trees are fully "installed" at the end of the establishment period.	Ch 6	
C. Maintain and Preserve Existing Trees		
C-1 Address Backlog of Tree Maintenance and Shift to 5-7 Year Inspection Cycle Formalize and implement a plan to address the backlog of tree maintenance. Establish and maintain a process to inspect all City-managed trees for trimming and risk needs every 5-7 years and trim if necessary, including evaluation and consideration for species or sites requiring alternative frequencies. **Priority Recommendation**		
a. **Plan for and Begin Implementing a 5-7 Year Trim Cycle** Utilize and refine existing assessments to create an action plan for achieving a 5-7 year tree trimming inspection schedule. Begin implementing the established action plan, while continuing to maintain capacity for responding to emergency tree requests.	Ch 7	Yes

Strategies and Actions	Related Chapter	Implementation Plan Inclusion
b. **Address Maintenance Backlog** Address the existing backlog of tree trimming maintenance for City-managed trees, consider utilizing contracts to reduce this backlog over a defined period of time.	Ch 7	Yes
C-2 Maintain Comprehensive Tree Maintenance Program Develop and maintain comprehensive tree maintenance programs for all City-managed trees, including providing structural pruning at regular intervals for all young trees, emergency response capacity, and end of life planning.		
a. **Street Tree Trimming Planning** Regularly assess the pruning process for street trees, including existing grid trimming schedules, and update as needed, ensuring that the process is clear and available to the public.	—	Yes
b. **Street Tree Structural Pruning** Assess options for providing young tree structural pruning for street trees and enact the most cost-effective method.	Ch 7	
c. **Emergency Response Programs** Continue comprehensive emergency response programs for street and park trees. Assess the best methods for creating emergency response programs for other City-managed trees, such as those around City facilities.	Ch 7	Yes
d. **End of Life Planning** Incorporate end of life planning into a tree management program utilizing regular inspection data and defined removal criteria to address removals as needed, such as for stumps and trees that are dead, dying, or at risk of failure. Coordinate removal planning with tree planting planning.	Ch 7	
e. **Proper Disposal of Infested Wood** Ensure proper disposal of wood with pest infestations for all City departments responsible for tree assets.	Ch 7	Yes
f. **Support Comprehensive Pruning During Line Clearance** Consider conducting a robust assessment to determine whether there is a pathway and/or desire to combine line and other Los Angeles Department of Water and Power (LADWP) clearance work with regular maintenance tree trimming objectives for street and park trees.	Ch 7	
g. **Planning for Trees Requiring Annual Line Clearance** Consider development of criteria and a comprehensive plan to retain or remove, redesign, and replace City-managed trees that require annual line clearance.	Ch 7	
h. **Ongoing Assessment and Updates** Continue to assess and update tree maintenance protocols based on new or revised best management practices.	Ch 7	
C-3 Enhance Street Tree Pruning Oversight Establish and implement a process to ensure tree pruning permits are obtained and acted on by appropriate skilled and/or licensed professionals, preventing unnecessary damage to City assets. Evaluate whether additional procedures to ensure high quality trimming are necessary.		
a. **Certification Program** Consider creating certification programs or list of approved contractors to acknowledge companies or individuals that have the ability, knowledge, and adherence to standards for tree care.	Ch 7	

DRAFT

Strategies and Actions	Related Chapter	Implementation Plan Inclusion
C-4 Reduce Improper Tree Pruning and Removals Take action to prevent improper pruning and provide enforcement against violations.		
a. **Prevention** Conduct research and pursue development and implementation of policies and programs to prevent improper pruning of street and private property trees - explore deterrence, incentives, and education.	Ch 7	
b. **Enforcement** Conduct assessment of gap in capacity related to enforcement of violations related to illegal street tree pruning and removals, including assessment of needs related to response to reports received after hours and on weekends.	Ch 7 Ch 8	
c. **Parking Lot Trees** Consider best ways to ensure parking lot trees grow to their full expected canopy, including consideration of enforcement-focused options and incentives.	Ch 7	
d. **Trees and Billboards** Assess how the City regulates and permits billboards in relation to improper tree trimming activities. Consider updating the fine structure for inappropriate tree trimming, or find other methods to address the issue of poor pruning to increase billboard visibility such as revising the City code regarding tree trimming practices.	Ch 7	
C-5 Support Trees During Drought and After Disasters Establish policies, protocols, and guidance to protect and support trees during drought and times of water restriction or after disasters that threaten tree health.		
a. **City Drought Response Policies and Protocol** Assess and pursue development of or updates to drought response policies and protocols for all City departments responsible for managing trees.	Ch 7	Yes
b. **Process for Supplemental Watering of Trees During Droughts** Perform assessment to create and utilize a process, and establish thresholds to trigger deployment, to hire contractors and/or shift City staff deployment to water trees during times of drought.	—	
c. **Post-Disaster Tree Support** Assess the best method to provide supportive, emergency watering after a disaster that threatens tree health.	—	
d. **Public Guidance on Drought Response and Trees** Promote public understanding and deploy messages to Angelenos on the need to provide supplemental water to trees during times of drought. Coordinate with water agencies to limit tree decline and death due to water restrictions by ensuring that both the water restriction policies and messaging to the public ensures tree health and longevity.	Ch 7	Yes
e. **Water Restrictions and Park Trees** Ensure water restrictions during times of drought do not restrict watering for establishing young park trees or for mature park trees that rely on irrigation.	Ch 6	Yes
f. **Park Irrigation** Invest in updated irrigation systems in City parks and prepare to deploy watering crews to address the need to water park trees during periods of water restrictions.	Ch 7	Yes

DRAFT

Strategies and Actions	Related Chapter	Implementation Plan Inclusion
C-6 Maintain Park Tree Heritage Policy Update, adopt, and implement a Park Tree Heritage policy, including clear criteria for what trees are included in the policy and what protections and enhanced tree maintenance are provided to Heritage trees.		
a. **Park Tree Heritage Program** Update Heritage Tree definition and recommendations for park trees, allocate resources for enhanced maintenance for Park Heritage Trees.	Ch 7	Yes
C-7 Support Private Property Tree Care Explore options for supporting private property tree care.		
a. **Funding for Private Property Tree Care** Promote collaboration between relevant City departments and outside partners to support funding for private property tree care and risk management programs.	Ch 7	
b. **Low Income Support** Explore and develop programs to support private property tree care, with an emphasis on supporting high quality standard of care for low-income homeowners and families (similar to the County's low-income senior handyman program).	Ch 7	
C-8 Update Tree Preservation Ordinances Assess and update City Ordinances that regulate the removal of City-managed or private property trees. **Priority Recommendation**		
a. **Assess Challenges and Opportunities** Consolidate assessments of challenges and opportunities related to existing tree preservation ordinances and utilize recommendations to strengthen tree preservation for protected trees, both private property and street trees. If needed, conduct an assessment to understand the most efficient way to increase successful enforcement of tree protection laws and regulations.	Ch 8	Yes
b. **Update the Protected Tree and Shrub Ordinance (PTO)** Update the PTO to address known issues, create objective standards, remove existing loopholes, and create additional replacement pathways.	Ch 8	Yes
c. **Update City Ordinances for Street Tree Protection** Review, evaluate, and update the Street Tree Protection sections of the Los Angeles Municipal Code (LAMC).	—	Yes
d. **Objective Standards** Create clear criteria that utilize objective standards to support when tree removals are or are not permitted. Criteria should include standards and findings for removals related to tree health, structure, risk, and land use priorities.	Ch 8	Yes
e. **Tree Valuation Process** Update existing tree protection policies to utilize a tree valuation tool for determining the total number of replacement trees required. Assess all other appropriate use cases for the tree valuation tool and make any appropriate updates to policies or regulations to establish its use.	Ch 8	Yes

Strategies and Actions	Related Chapter	Implementation Plan Inclusion
f. **Require Protection Measures** Develop Tree Protection Zone (TPZ) guidelines and requirements in all instances where the City has oversight of construction or demolition work being conducted near trees, including both the public right-of-way and private property development.	Ch 8	Yes
g. **Undeveloped Parcels** Assess the most appropriate way to address protected trees growing on parcels within the City that have never been developed. Consider increasing the options for replacing trees permitted for removal, potential adjustments to land use and zoning, potential for conservation of these parcels, and other opportunities to address known issues with these types of sites.	Ch 8	
h. **LADWP Infrastructure** Consider development of a standard operating procedure, policy, or Memorandum of Understanding (MOU) between Public Works Bureau of Street Services Urban Forestry Division (UFD) and Los Angeles Department of Water and Power (LADWP) to improve and expedite pathways for maintaining LADWP infrastructure when street or protected trees are present.	Ch 7	
i. **Carbon Sequestration Projects** Consider protections for trees planted as part of a carbon sequestration project, including considerations for creation of a policy and process for tracking these trees for tracking these trees.	—	
C-9 Enhance Oversight and Enforcement of Protected Private Property Trees and Shrubs Evaluate the oversight and enforcement of private property trees,determine the City department(s) best suited to manage related policies, consider opportunities for alignment with other private property decision-making, and assess the required resources and capacity. **Priority Recommendation**		
a. **Evaluate Private Property Oversight** Upon establishment of the new civil service classifications, begin evaluating the oversight of private property trees to determine the City department best suited to manage their permitting and enforcement. This should consider opportunities for alignment with other private property decision-making and ensure that adequate staff resources are assigned for these functions.	Ch 8	Yes
b. **Capacity Assessment and Increase** Assess the necessary level of staff capacity and urban forestry expertise required by the City department(s) responsible for Protected Tree and Shrub Ordinance (PTO) oversight and enforcement, ensuring ability to respond to reports of illegal tree removals after hours and on weekends. Consider the most effective organizational structure within the responsible City department(s) for efficient PTO oversight and enforcement.	Ch 8	Yes
C-10 Support Street Tree Retention and Public Right-of-Way Compliance Assess best methods to continue to retain trees when they impact sidewalks or other infrastructure in the public right-of-way while also ensuring compliance with all other requirements.		
a. **ADA Compliance and Decision-Making** Update street tree valuation processes, methods of tree retention, and removal criteria to support decision-making when trees and sidewalks are in conflict.	Ch 8	Yes

Strategies and Actions	Related Chapter	Implementation Plan Inclusion
b. **Research** Assess the most cost effective methods for addressing conflicts between trees and sidewalks that supports the health and longevity of trees and compliance with Americans with Disabilities Act (ADA) requirements.	Ch 8	
c. **Demonstration Projects** Conduct research, design, and pursue funding for demonstration projects that model street and built environment redesign necessary for tree retention, preservation.	—	
C-11 Align Brush Clearance and Protected Tree Policies Take action to ensure brush clearance activities and regulations do not unduly impact protected private property trees and shrubs or trees under City-management.		
a. **Evaluate Ways to Prevent Damage** Conduct evaluation of the most cost-effective and successful ways to prevent unintended damage or removal of protected private property trees and shrubs during annual brush clearance.	Ch 8	Yes
b. **Update Protocols, Public Communication, and Training** Consider updating protocols, public communication materials, contractor training, and contract specifications to ensure that protected private property trees are not removed or unintentionally damaged during annual brush clearance.	Ch 8	
c. **City Vegetation Management Programs** Regularly review and update, if necessary, the City's practices for vegetation management in sensitive areas.	Ch 8	
d. **Align Clearance Requirements Regionally** Consider updating the Los Angeles Fire Department (LAFD) brush clearance requirements with assessment of other regional fire departments policies.	Ch 8	
C-12 Enhance Urban Forest Considerations in Park Capital Projects Ensure the Department of Recreation and Parks Forestry Division (RAP Forestry) staff are consulted for capital projects that may impact trees and appropriately empower and provide capacity to the team to support tree preservation.		
a. **Update process to require that capital improvement projects on park land consult with Department of Recreation and Parks Forestry Division (RAP Forestry) staff** when designing projects or making project decisions that may result in tree removals or will require protections for retained trees in areas adjacent to construction activities. Ensure RAP Forestry is appropriately empowered and staffed to support tree preservation through inclusion in the design and construction process, as appropriate..	Ch 8	Yes
C-13 Increase Guidance and Education for Private Property Tree Preservation Assess best methods for providing guidance and education to support private property tree preservation.		
a. **Guidance and Education** Consider providing guidelines or conducting outreach to landscape companies on tree preservation policies.	—	
b. **Dig Alert** Advocate for trees to be added to 811/Dig Alert to prevent unnecessary tree decline/death and alert the public to potential hazard and risk from severing tree roots during construction.	—	

Strategies and Actions	Related Chapter	Implementation Plan Inclusion
D. Track Progress and Pilot Innovation Using Data and Metrics		
D-1 Implement the UFMP Utilize the UFMP's Strategic and Implementation Plans to implement strategies and actions to achieve the UFMP's goals and outcomes for the City's urban forest.		
a. **Implementation Plan Updates** At the end of each implementation plan period, assess the current implementation plans, advise on successes and challenges for the 5-year period, and create new 5-year implementation plans.	—	Yes
b. **Centralized City Website for Urban Forest** Design and publish a centralized City urban forest website that is easy to access, clear and well-formatted and acts as a centralized hub that clearly describes the City's urban forestry goals and vision and directs the public to all City urban forestry resources.	Ch 9	Yes
c. **Public Dashboard for UFMP Metric Tracking** Create and update a public dashboard to track urban forest metrics and activities.	—	Yes
D-2 Develop Pathways for Innovation and Pilot Projects Develop or streamline pathways for City departments, nonprofit and regional partners, and community groups to implement innovative projects that support canopy expansion, especially in the public right-of-way.		
a. **Pilot New Species** Develop protocols for testing new species for use as street trees and create clear criteria for success. Continue to review current research and collaborate with other municipalities. Provide updated guidance on species selection through revised criteria or lists, as appropriate, based on pilot outcomes.	Ch 2 Ch 6	
b. **Funding for Pilot Projects** Provide funding in the budget process or through other Council action for pilot projects for urban forestry innovation and improvement, when such projects are identified.	—	
c. **Assess and Pilot Methods for Supporting Renters** Assess the best ways to support renters in having access to high quality urban canopy, provide recommendations to address challenges identified, and pilot solutions.	Ch 6	
d. **Pilot New Products and Materials** Develop protocols for testing new products and materials for use alongside street and park trees to support tree health and decrease infrastructure conflicts.	—	
D-3 Assess and Utilize Tree Inventory Stability Metrics Regularly assess stability metrics for the City-managed tree inventories and update the City's policies and programs to ensure adherence to urban forest health and inventory stability metrics.		
a. **Maintain and Update Inventories** Assess the most cost effective strategy for updating tree inventory data regularly for each City department responsible for tree asset management. Inventory data should be updated at least every 5 years for actively managed City tree assets and every 10 years for trees in parks or open space areas with limited public access. Assess and update the inventory systems to track all attributes necessary for monitoring stability and health metrics and other UFMP actions.	Ch 5	Yes

Strategies and Actions	Related Chapter	Implementation Plan Inclusion
b. **General Services Department (GSD) Tree Inventory** Conduct an inventory of all trees at City facilities or on property under the jurisdiction of GSD and establish a process to maintain and update the inventory.	Ch 3	
c. **Propriety Department Tree Inventories** Conducted an inventory of all trees managed by proprietary departments, including Los Angeles Department of Water and Power (LADWP), Los Angeles World Airports (LAWA), and the Los Angeles Harbor Department.	Ch 3	
d. **Genus and Species Diversity and Relative Performance Index (RPI)** Utilize inventory data analysis of genus and species diversity and RPI in species decisions for planting projects to mitigate impacts from future pest infestations and diseases and reduce the frequency of low performing species with potentially high maintenance needs.	Ch 5	Yes
e. **Structural and Health Condition Data** Utilize inventory data analysis of structural and health condition diversity to advocate for planting and maintenance resources for the Public Works Bureau of Street Services Urban Forestry Division (UFD) and the Department of Recreation and Parks Forestry Division (RAP Forestry) to manage healthy inventories of tree assets.	Ch 5	Yes
D-4 Assess Canopy and Land Cover and Set Canopy Target Set tree canopy cover targets and regularly track tree canopy and other land cover percentages over time at varying geographic boundaries within the City. Collaborate with Los Angeles County to track land cover data within the region.		
a. **Citywide and Neighborhood Canopy Cover Targets** Establish citywide and neighborhood level canopy targets of 25% citywide and a minimum neighborhood target of 15%.	Ch 5	Yes
b. **Canopy and Land Cover Data** Regularly conduct canopy cover and/or land cover analysis or utilize analysis conducted by Los Angeles County or other regional partners to track success towards canopy goals over time. Recommended to assess canopy on a 5-year timeframe.	Ch 5	Yes
c. **Assess Canopy Impacts from City Policy** Further assess available land cover, tree canopy cover, and tree point data and emerging research to better understand the canopy expansion or loss caused by City policy and programs, potential canopy increase opportunities, and to support recommendations for updates, as necessary.	Ch 5	
d. **Metrics for City Planning Policies' Impacts on Canopy** Develop metrics and track the impact on canopy from the implementation of City Planning policies that impact tree planting and recommend adjustments as needed.	Ch 6	
e. **Track Parcel Level Canopy Cover Contribution** Evaluate the feasibility of establishing an integrated data system to monitor changes in tree canopy cover at the parcel-level (or other appropriate geographic unit) and consider how this can assist in indicating a proposed project's positive or negative overall impact on tree canopy levels. Coordinate with any similar process created for open space tracking.	Ch 5	

DRAFT

Strategies and Actions	Related Chapter	Implementation Plan Inclusion
f. **Canopy Capacity in Public and Private Space** Conduct holistic assessments of tree canopy cover by neighborhood that consider capacity for tree canopy expansion in public spaces and on private property. Where less space is available on private property, ensure decisions are made to increase space for tree canopy in the surrounding area in the public right-of-way and/or in parks.	Ch 8	
D-5 Track Urban Forest Activities Track urban forest activities that impact canopy cover gains and losses, such as tree planting and removals.		
a. **Tracking and Reporting** Establish a process for the City Planning Office of Forest Management (OFM) to annually track urban forest activities that impact canopy cover gains and losses through data reporting from other City departments. Tracking for these activities should separate different tree types (street, park, protected private property, etc.).	Ch 5	Yes
b. **Analysis of Expected Canopy Impacts** Utilize analysis of urban forest activities that impact canopy cover gains and losses to assess expected progress toward overall urban forest gain or loss and recommend policy, program, and funding adjustments for the City to consider.	Ch 5	
D-6 Track and Report on Urban Forest Funding Track and report on urban forest funding, including assessments of increased resources needed for the City.		
a. **Create Annual Urban Forest Funding Reports** Provide annual and as needed reports on urban forestry funding needs and gaps, include recommendations to policy-makers based on UFMP priorities.	Ch 10	Yes
D-7 Inventory Protected Private Property Trees and Shrubs Pursue creation of an inventory of protected private property trees, as technology allows. Create a data repository for tracking known protected trees as data is collected as part of the development project process.		
a. **Protected and Significant Tree Likelihood** Create data layers for likelihood of protected and significant tree presence on parcels.	Ch 8	Yes
b. **Create Tracking System and Compile Existing Data** Begin developing a system for collecting and inventorying existing data for private property trees, including compiling tree disclosure statement data and data currently held in the street tree inventory. Consider the process for intaking new data as part of system development.	—	
D-8 Collaborate with Research Collaborate with research efforts, especially including those that are local, regional, and state-wide.		
a. **Partnerships with Universities and Colleges** Deepen partnership with universities and colleges to support tree canopy equity goals, increase research opportunities, and engage with students.	Ch 3	Yes

Strategies and Actions	Related Chapter	Implementation Plan Inclusion
b. **Climate Resilience, Urban Cooling, and Public Health** Continue to participate in and support urban forest, climate, and public health research to understand vulnerabilities, impacts, and opportunities. Utilize this research to develop urban forest management policies and programs that address climate vulnerability and urban conditions.	Ch 2	Yes
c. **Air Quality** Continue supporting research to understand tree impacts on air quality in Los Angeles and create program and policy recommendations based on research findings.	Ch 2	Yes
d. **Tree Species and Climate Change** Conduct further research of species not appropriate for future climates. Continue to work with researchers in the region and California more broadly to understand anticipated future climate scenarios for the Los Angeles region and species appropriate for different planting locations (such as street, park or open space, and private property).	Ch 5	Yes
e. **Biodiversity and Ecological Function** Continue supporting and participating in research to understand opportunities, track policy or program outcomes, to improve ecological function and health of the region and increase biodiversity.	—	Yes
E. Develop and Maintain City Policies		
E-1 Assess and Update Urban Forest Management Policies, Regulations, and Programs Regularly assess and update policies, regulations, and programs for urban forest management to ensure they align with best management practices and climate change needs.		
a. **Feedback for Needed Code Updates** Collect regular feedback from City departments on updates to City Code that would support high quality urban forest management.	Ch 3	Yes
b. **Updating Codes for Urban Forest Management** Regularly assess and update sections of the Los Angeles Charter and Administrative Code and Los Angeles Municipal Code (LAMC) that impact trees to support tree preservation, clearance regulations, development requirements, and clearly establish the responsible City department for each activity or tree asset type.	Ch 3	Yes
c. **LAMC Zoning Code Chapter 1 and Chapter 1A** Make updates to the Los Angeles Municipal Code (LAMC) to create alignment for tree related sections of the Original Zoning Code (Chapter 1) and the New Zoning Code (Chapter 1A).	Ch 3	Yes
d. **General Plan Element Updates** Include alignment with UFMP recommendations within General Plan Elements updates.	Ch 3 Ch 4	Yes
e. **Code Updates to Support Five Years of Establishment Care** Assess the Los Angeles Municipal Code (LAMC) and other City policy and take action to enact the necessary updates to support the requirement of five years of establishment care for all street tree planting, including replacement tree requirements.	Ch 6	Yes

Strategies and Actions	Related Chapter	Implementation Plan Inclusion
f. **Responsibility for Trees on City Facilities** Assess tree management around City facilities and on City-owned properties currently under General Services Department (GSD) jurisdiction. Identify the best option for assigning management of these trees, including consideration of GSD and the Department of Recreation and Parks (RAP), and update the Los Angeles Municipal Code (LAMC) as necessary to clearly state which City department is responsible.	Ch 3	
g. **Street Tree Planting City Standard and Details** Regularly assess and update Public Works Bureau of Engineering (BOE) standards and details for street tree planting, including S-450-4, S-455-2, and S-456-2.	Ch 6	Yes
h. **Street Tree Spacing Guidelines** Consider updating Public Works Bureau of Street Services Urban Forestry DivisioN (UFD) Tree Spacing Guidelines to allow for increased potential tree planting locations within the public right-of-way.	Ch 6	Yes
i. **Street Tree Selection List** Finalize and release the updated Street Tree Selection List and develop a process to regularly assess and update as local conditions change, including a process for assessing new species' performance as street trees.	Ch 6	Yes
j. **Parkway and Sidewalk City Standards** Consider updates to and/or creating new standard plans to support increasing open, uncompacted soil volumes including creating new standard plans for parkways and pavement suspension systems solutions and updating S-444-1 (Sidewalks) to require City oversight when removing a parkway.	Ch 6	
k. **Public Right-of-way Landscape Ordinance** Develop a new Public Right-of-Way Landscape Ordinance that updates the Los Angeles Municipal Code (LAMC) to provide consistent tree establishment and watering requirements for street trees, along with other landscape design and maintenance considerations.	Ch 6	
l. **Create Tree Valuation Tool** Create a tree valuation tool that is based on industry standards and utilizes trunk diameter or canopy spread, species, health condition, and other location factors of the tree slated for removal to calculate total number of replacement trees required and full cost to plant and establish all replacement trees.	Ch 8	Yes
m. **Soil Volume Standards** Utilize existing guidelines and consider further development of standards for required minimum soil volumes to promote and achieve canopy targets.	Ch 6	Yes
n. **Pruning Specifications** Develop and regularly update Pruning Specifications for all City-managed trees and for various types of pruning, such as species-specific considerations, street typology, heritage trees, or clearance of recreation facilities.	Ch 7	
o. **Tree Preservation Policies and Regulations** Regularly review the City's preservation policies to ensure current and future policies include objective standards.	Ch 8	Yes
p. **Policy Institutionalization** Ensure policies are institutionalized such that City administration or staffing changes do not unduly impact the ability for nonprofit organizations and community groups to support the City's urban forestry efforts.	Ch 9	

DRAFT

Strategies and Actions	Related Chapter	Implementation Plan Inclusion
E-2 Conduct Training for Best Practices Continue to regularly provide training and retraining for all staff responsible for managing public tree assets.		
a. **Annual Safety Training** Continue to conduct annual safety trainings for all City staff conducting field work related to urban forest management.	—	Yes
b. **Tree Care for Birds and Other Wildlife Training** Continue to provide annual training relating to tree care for birds and other wildlife to all City staff who work with trees, and include additional training on biodiversity and habitat considerations as appropriate.	Ch 2	Yes
c. **Pest and Disease Identification and Treatment** Provide training on emergent pests and diseases to aid in identification of infected trees and ensure implementation of appropriate protocols for treatment, removal, and/or disposal of infected trees.	—	Yes
d. **Professional Development for Changing Climate** Provide ongoing professional development for City staff to support urban forest management programs in aligning with and responding to climate change.	Ch 2	
e. **Tree Planting Oversight** Require specific training and expertise related to species selection and other planting considerations for City staff that oversee tree planting permitting and/or species selection as part of the City's tree planting programs.	Ch 6	
E-3 Create Job Classifications Create civil service job classifications to aid in recruiting and hiring the necessary City staff to manage the urban forest and other natural resources. **Priority Recommendation**		
a. **Urban Forester and Urban Ecologist** Request the Personnel Department to start the process to create new or update currently unused civil service job classifications for urban forester and urban ecologist to allow City departments another avenue for hiring the appropriate technical expertise for overseeing living infrastructure management.	Ch 3 Ch 8	Yes
E-4 Ensure High-quality Contracted Tree Work Create and maintain a process that allows City departments to contract out tree work, as needed, with mechanisms in place to support high quality outcomes.		
a. **On-call Lists for Tree Work** Pursue creation of contractual on-call lists for tree related work, including technical, engagement, trimming, removal, pest management, and planting/watering work.	Ch 3 Ch 7	
b. **Oversight of Contracted Maintenance Work** Establish and implement a process to ensure City contractors follow best management practices for tree trimming, including sufficient staff oversight and clear pruning specifications for contracted work.	Ch 3	Yes

Strategies and Actions	Related Chapter	Implementation Plan Inclusion
E-5 Enhance Communication and Notification Process Assess the best method and pursue creation of a communication process to inform the public about urban forest activities happening in their neighborhood, and to set clear expectations and understanding of input opportunities and processes, when appropriate. (Included in Chapter 9 Summary of Recommendations)		
a. **Street Tree Planting Community Notification** Assess the notification process for street tree planting projects and update as needed to ensure it is clear and standardized for all City-led and external projects and surrounding community members.	Ch 6	
b. **Tree Removal Request and Permit Transparency** Regularly assess the process for notifying the public regarding requested and approved tree removals for both public and protected private property trees. Ensure notification process is clear and timely, including a description of options for public feedback and process after feedback is received.	—	Yes
E-6 Create and Maintain Urban Forest Manuals Create and regularly update Urban Forest Manuals for all City departments with groups responsible for direct tree asset management. (Included in Chapter 3 Summary of Recommendations)		
a. **Street Tree Manual** Complete and adopt a Street Tree Manual to document Public Works Bureau of Street Services Urban Forestry Division (UFD) policies and processes for oversight and management of the City's street tree assets, including those related to tree planting, tree planting permitting, tree trimming, other maintenance activities, tree removal requests, permitting, and enforcement for illegal removals. A draft was started in 2024.	Ch 6 Ch 7 Ch 8	Yes
b. **Park Urban Forest Manual** Continue to adopt updated versions of the Department of Recreation and Parks (RAP) Urban Forest Manual as updates are needed for tree planting programs and oversight, tree trimming, maintenance, and preservation.	Ch 6 Ch 7 Ch 8	
c. **Other City Department Manuals** Create and adopt Urban Forest Manuals for City departments other than Public Works Bureau of Street Services Urban Forestry Division (UFD) and Department of Recreation and Parks Forestry Division (RAP Forestry) responsible for tree assets. This may include the General Services Department (GSD), Los Angeles World Airports (LAWA), the Los Angeles Harbor Department, and Los Angeles Department of Water and Power (LADWP).	Ch 6 Ch 7 Ch 8	
E-7 Conduct Street Tree Master Planning Create Street Tree Master Plans that address different urban forestry conditions for each Los Angeles community.		
a. **Framework for Street Tree Master Planning** Develop a framework for street tree master planning, with a process for community input and consideration of climate change impacts on species range and/or performance, and include consideration of other planning activities for sub-sections of the City that may pair well with creating street tree master plans (such as disaster recovery planning, transit focused planning, and Community Plans).	Ch 6	

DRAFT

Strategies and Actions	Related Chapter	Implementation Plan Inclusion
b. **Species Selection for Future Climates** Continue to include consideration of the region's changing climate in tree species decision-making for new planting projects.	Ch 2	
c. **Create Street Tree Masters Plans** Create Street Tree Master Plans as part of or subsequent to neighborhood-level canopy expansion planning or other planning activities. Include processes for incorporating new information from pilot projects, research, climate change considerations, and significant changes to community needs.	—	Yes
E-8 Create and Maintain Tree Risk Management Plans Develop and adopt a risk-based management plan for street, park, and other City-managed trees to establish a risk tolerance framework.		
a. **Develop and adopt a risk-based management plan for street, park, and other City-managed trees** to establish a risk tolerance framework that includes clear definitions around acceptable and unacceptable risk and creates decision trees for use by City departments.	Ch 7 Ch 8	
E-9 Develop and Implement Integrated Pest Management Create and adopt an Integrated Pest Management Plan in coordination with LA County Agriculture Weights and Measures and implementation of Los Angeles County's Community Forestry Management Plan.		
a. **Framework** Develop an Integrated Pest Management Framework that includes policies, permits, and procedures for pest management strategies for known pests/diseases, an action plan and protocol for rapid response to new and emergent pests/diseases, and a process for informing and educating the public when new pest/disease issues arise within the region.	Ch 7	
b. **Private Support for Pest Management** Assess protocols and develop mechanisms to allow Angelenos to support pest management through street tree treatment or removal in response to pest infestations.	Ch 7	
c. **Funding for Pest and Disease Response** Consider funding increases to support needed additional capacity to address pest and disease issues, such as planning appropriate strategies, developing and conducting timely staff training, inspecting, addressing, and monitoring infested trees, managing data tracking, and managing and overseeing any necessary contracts with the ultimate goal of preventing premature tree loss or large urban forest reductions. Ensure sufficient staff capacity is allocated to review and adapt scientific recommendations for the street and park tree context.	Ch 7	
E-10 Plan for Biomass Utilization Develop, adopt, and implement a Biomass Utilization Plan that identifies methods of wood reuse and volumes appropriate for each method within the City.		
a. **Biomass Utilization Assessment** Assess the most appropriate solution to biomass reutilization, supporting mulch needs for soil health and also considering ways to keep carbon sequestered within lumber or other wood products.	Ch 2	

Strategies and Actions	Related Chapter	Implementation Plan Inclusion
b. **Wood Reuse** Evaluate challenges and opportunities to increase wood reuse by developing contracts and agreements with private companies and/or creating internal capacity for milling.	Ch 7	
c. **Biochar** Review and determine next steps based on findings from the Biochar report.	—	
E-11 Reduce Local Carbon Footprint in Tree Programs Continue to review and revise planting, establishment care, and maintenance delivery to reduce carbon footprint.		
a. Continue to review and revise planting, establishment care, and maintenance delivery to reduce carbon footprint, such as shifting fleets to electric and adjusting crew deployment, as appropriate and feasible.	—	Yes
E-12 Assess and Update Non-Urban Forest Specific City Policies and Processes Consider updates to non-urban forest City policies and processes that impact the City's ability to successfully provide high quality urban forest management.		
a. **City Hiring Process** Assess and modernize the City's hiring process to reliably fill vacant positions with high quality candidates.	Ch 3	
b. **Contracting Process** Assess and update the City process to contract out work that cannot be conducted in house, that has a limited timeframe and therefore cannot sustain permanent City position(s) (such as one-time grant funding), or that extends beyond typical contract timeframes (such as the five-year establishment care period).	Ch 3	
F. Collaborate, Educate, and Engage		
F-1 Enhance Urban Forest Coordination and Collaboration Coordinate across City departments and with county, state, federal, research and nonprofit groups.		
a. **Interdepartmental Coordination** Continue to enhance unified coordination efforts across City departments for urban forest management in alignment with previous recommendations related to urban forest coordination, planning, and management included in urban forest assessments and reports.	Ch 3	Yes
b. **Los Angeles County and Other Regional Coordination** Continue to collaborate with Los Angeles County and the other cities and counties in Southern California on urban forest management information and resource sharing, policy development, and other mechanisms to enhance urban forest health and connectivity.	—	Yes
c. **Increase Urban Forest Leadership Positions** Continue efforts to increase capacity for planning and leadership positions within City departments managing tree assets as recommended previously in urban forest assessments and reports.	Ch 3	Yes
d. **Technical Support** Provide support to City departments, bureaus, and divisions related to urban forestry policy, programs, data, and research, including reporting regularly on relevant research for the Los Angeles regions' urban forest and management.	Ch 3	Yes

Strategies and Actions	Related Chapter	Implementation Plan Inclusion
e. **Interdepartmental MOU** Update data and protocols within the Interdepartmental MOU or other tools for interdepartmental collaboration to ensure tree preservation is prioritized in existing City work.	—	Yes
f. **Partnership Model to Support External Contributions** Establish and enhance partnership models to facilitate external contributions and support for tree planting, community engagement, and other urban forest management activities, as appropriate.	Ch 9	Yes
g. **Community Engagement** Foster strong collaboration between City and external partners, such as nonprofit organizations, to involve and support neighborhood knowledge and capacity in urban forest projects by conducting engagement that is inclusive and accessible for community members, including the use of trusted messengers and locations, language access, and use of materials and methods that are culturally appropriate and allow for participation across multi-generational audiences.	Ch 9	
h. **Grant Collaboration** Lead and promote regular coordination between City departments and external partners to support and enhance grant funded urban forest projects, including by sharing the City's tree planting priorities, known future grant funding opportunities, and insights from the City departments ultimately responsible for long-term tree asset management, allowing City staff to contribute to project development, and by providing letters of support for grant applications written by partners that align with City goals and practices.	Ch 10	Yes
i. **Ecosystem Management** Support cross-department, inter-agency, and public-private collaboration on urban ecosystem management as part of urban forest management.	Ch 2	Yes
j. **Alignment Between UFMP and Other City Efforts** Continue inter-departmental collaboration when developing and implementing City assessments and plans to support alignment between the UFMP and other efforts. This includes Mayoral initiatives, especially those related to climate and infrastructure, and documents from City departments, such as the Biodiversity Index, Climate Vulnerability Assessment (CVA), Climate Action and Adaptation Plan (CAAP), and Heat Action and Resilience Plan (HARP).	Ch 3	Yes
k. **Pest Management** Expand the partnership with LA County to develop strategies and protocols for public education and early detection of pests and more broadly to support the regional management of pests and diseases that impact trees.	Ch 7	Yes
F-2 Build Strong Relationships with Large Land Managers Build on existing partnerships to create strong working relationships with organizations and institutions that own or manage large areas of land within the City boundary (such as Los Angeles Unified School District) to support and/or create canopy expansion programs.		
a. **LAUSD Collaboration** Partner with Los Angeles Unified School District (LAUSD) to increase tree canopy in and around school campuses to support students and tree canopy equity goals. Consider how this type of canopy expansion can pair with the pursuit of joint-use agreements between the Department of Recreation and Parks (RAP) and LAUSD, that provide usable recreational and open space areas on school campuses to local communities.	Ch 3	Yes

DRAFT

Strategies and Actions	Related Chapter	Implementation Plan Inclusion
b. **Caltrans Collaboration** Encourage the California Department of Transportation (Caltrans) to prioritize tree preservation and to provide high quality tree maintenance and new tree planting in easements along freeways.	Ch 3	
c. **Other External Collaboration** Coordinate with large land managers, including other government agencies and local institutions, in the City to address urban forest opportunities and issues and assist in meeting the City's urban forest goals.	Ch 3	
d. **Support Conservation, Maintenance, and Expansion of Natural and Open Space** Support the conservation, maintenance, and potential expansion of natural and open spaces in and around the City that are managed by other government agencies.	Ch 3	
F-3 Create Community Engagement Process Create and implement an urban forest community engagement process and protocols that include clear consideration of procedural equity best practices. Take action to support collaboration and training between City departments and units conducting community engagement work to develop best practices.		
a. **Include Community on Urban Forest Design** Include an iterative process for consulting the community on design for all tree planting projects.	Ch 9	
b. **Process for Public Feedback** Take action to ensure opportunities for public feedback and input on urban forestry decisions are clear and accessible.	Ch 9	Yes
c. **Public Understanding of City Department Responsibility** Clearly define and publicly record responsibility for urban forestry roles of different City departments for the public.	Ch 9	
F-4 Create a Framework for Urban Forest Public Education Campaigns Conduct research and develop a framework for public education campaigns. **Priority Recommendation**		
a. **Research and Develop Framework** Request contractual funding to begin the process to conduct research and develop a framework for public education campaigns, including assessing which education topics should be developed and implemented with other regional governments and which topics are City-specific.	Ch 9	Yes
b. **Behavior Change Strategies** Assess methods for developing behavior change strategies and social norms around trees and appropriate tree care, including consideration of Community-Based Social Marketing.	Ch 9	
c. **Regional Collaboration** Collaborate with Los Angeles County and other regional partners on urban forest education campaigns focused on topics that increase support for trees and equitable canopy cover, understanding the interdisciplinary aspect of urban forestry, maximize individual tree health and overall urban forest health, and provide guidance for the public and developers on tree needs.	Ch 9	

DRAFT

Strategies and Actions	Related Chapter	Implementation Plan Inclusion
F-5 Provide Guidance and Education Materials Develop and provide education and guidance materials to Angelenos on urban forestry management topics.		
a. **Collaboration with Design Community** Engage design, real estate, and development professional organizations to educate their members on sustainable urban design standards, especially when it comes to tree selection and the current preference for uniformity.	Ch 8	
b. **Guidance for Projects** Develop and provide guidance for the public and developers on tree needs, such as species selection, proper pruning, pest management, Tree Protection Zones (TPZs) during construction, etc. Collaborate between City departments as part of this education.	—	Yes
c. **Guidance for Biodiversity and Ecology** Provide private property owners with science-based guidance on appropriate tree selection, native vegetation, invasive species management, soil health, and water-wise landscapes.	Ch 2	Yes
d. **Ecological Literacy** Explore the best methods for supporting broader public ecological literacy.	Ch 2	
F-6 Conduct Public Education Campaigns Create content and conduct city-wide urban forest public education campaigns on a variety of urban forestry topics, including those related to public infrastructure and public health, sustainability and climate, and tree care and management. (Included in Chapter 9 Summary of Recommendations)		
a. **Public Infrastructure and Public Health** Conduct public education campaigns focused on shifting and cultivating values in Los Angeles to support trees and equitable canopy cover. This may include topics such as the benefits of the urban forest, tree's role as public infrastructure, consideration of shade as a critical utility, ways to support tree planting efforts, how healthy trees support public health and impact quality of life.	—	
b. **Sustainability and Climate** Conduct public education campaigns focused on the interdisciplinary aspect of the urban forest. This may include topics such as canopy and cooling, stormwater capture, and the role of front and back yards and native plants/trees in achieving biodiversity and climate-related goals.	—	Yes
c. **Tree Care and Management** Conduct public education campaigns focused on maximizing individual tree health and overall urban forest health. This may include topics such as best management practices for tree health, proper tree trimming and importance of arborists as technical experts, how to water trees during drought and times of water restrictions, and how to support enforcement of tree protections (such as how to report illegal removals and/or trimming). This should include education campaigns focused on different audiences, such land owners, renters, landscape professionals.	Ch 7	

Strategies and Actions	Related Chapter	Implementation Plan Inclusion
G. Establish Evergreen Funding Mechanisms		
G-1 Explore Ballot Measure Development Explore development of a ballot measure for urban forest funding, including consideration of collaboration with Los Angeles County. If pursued, development should include initial polling, structure, and draft language development. **Priority Recommendation**		
a. **Ballot Measure Structural Research and Polling** Identify and allocate resources to begin exploring the development of a funding measure to support the City's urban forest efforts. This should include conducting the appropriate polling and research needed to structure the funding measure for successful adoption by the voters and implementation. Consider the appropriate level of collaboration with Los Angeles County.	Ch 10	Yes
G-2 Update Tree Related Fees and Fines Regularly assess and update sections of the Los Angeles Municipal Code (LAMC) for fee and fine schedules for tree related activities, permits and violations to provide cost recovery for oversight of urban forest activities and requirements. Include automatic annual CPI adjustment and recommendations for frequency of assessment updates. (Included in Chapter 3 Summary of Recommendations)		
a. **Update Guarantee Tree Fee (GTF) Fees** Assess and update the GTF fees and other relevant policies to ensure fees match current conditions and cover the lifetime maintenance costs for required trees that are planted as street trees or in other locations managed by the City. Include automatic adjustments for consumer price index (CPI).	Ch 6	Yes
b. **Pairing Guarantee Tree Fee (GTF) Funding with Capital Infrastructure Projects** Evaluate use of the GTF funding within capital improvement projects. Assess the utilization of the GTF funding to add high quality canopy trees as part of capital projects that are unable to plant trees through other funds.	Ch 6	Yes
c. **Update Fees for Street Trees** Take action to approve the Public Works Bureau of Street Services (StreetsLA) fee study to increase permit fees to allow for partial or full cost recovery for oversight services StreetsLA Urban Forestry Division (UFD) provides for various street tree and other urban forest activities.	Ch 10	Yes
d. **Update Fines for Street Trees** Assign staff and allocate resources to assess an appropriate fine structure for tree violations to support deterrence and ensure the fine structure aligns with the City's legal ability to assess the fines and is enforceable by City staff.	Ch 10	
e. **Update Fees for Protected Private Property Tree Review** Include updates to the City's fee structure for protected tree review of removal requests, approval or denial of permits, and oversight of replacement requirements and overall protection as part of the updates to the Protected Tree and Shrub Ordinance (PTO).	Ch 8	Yes

Strategies and Actions	Related Chapter	Implementation Plan Inclusion
f. **Update Fines for Protected Private Property Trees** Include updates to the City's fine structures related to violations of the ordinance as part of updates to the Protected Tree and Shrub Ordinance (PTO).	Ch 8	Yes
G-3 Enhance Utilization of State and Federal Grant Funding Assess and improve the City's process for accessing, successfully implementing, and supporting external success for state and federal urban forestry grants and other philanthropic funding opportunities.		
a. **Grant Funding Eligible Expenses** Continue to advocate for state and federal funding to include important urban forestry activities in addition to tree planting, such as full five years of establishment care, maintenance, education, and outreach.	Ch 6 Ch 10	Yes
b. **City Process for Front Funding** Establish a fund or create a standard, repeatable process to allow City departments access front funding for grants that provide funding only through reimbursement payments.	Ch 10	
c. **Expand Contracting Expertise** Consider adding additional City staff with strong contracting experience to City departments in groups that leverage grant funding for urban forest projects to aid in project development and administration.	Ch 10	
d. **Consider Filling Gaps to Make Grants Whole** Consider providing urban forest investments to fill the gap created by urban forest grants that provide funding for less than five years of establishment care. This would allow City departments and external partners to still leverage those funding sources available for planting and limited establishment care work.	Ch 10	
G-4 Increase General Fund Urban Forest Allocations Increase the baseline General Fund allocations within the City budgeting process for City departments responsible for urban forest activities. (Included in Chapter 10 Summary of Recommendations)		
a. **Urban Forest Management** Fund urban forest management activities by providing sufficient staffing levels and contractual funds to responsible City departments, including UFMP implementation, tracking, and community engagement activities.	Ch 9	Yes - request resource
b. **Street Tree Planting Programs** Increase or reallocate funding for Public Works Bureau of Street Services Urban Forestry Division (UFD) direct tree planting programs to increase City crews or to fund contractual work related to tree planting, establishment care, and young tree structural pruning and allocate funding for related needs for equipment and yard space.	Ch 6	
c. **Street Tree Planting Permitting Oversight** Increase or reallocate funding and staff authorities for Public Works Bureau of Street Services Urban Forestry Division (UFD) oversight of tree planting permitting, including an assessment of permit fees, reallocation of existing UFD staff, and increases in General Fund allocations as part of the City budget process.	Ch 6	Yes - request resource

DRAFT

Strategies and Actions	Related Chapter	Implementation Plan Inclusion
d. **Park Tree Planting Programs** Increase funding for Department of Recreation and Parks Forestry Division (RAP Forestry) for tree planting to create City crews or to fund contractual work for direct tree planting programs and allocate funding for related needs for equipment and yard space to meet annual planting goals.	Ch 6	
e. **Funding for Tree Inventories** Provide funding in the budget process for maintaining up-to-date City-managed tree inventory data for each City department responsible for tree asset management, including funding for regularly training staff on inventory software.	Ch 5	Yes - request resource
f. **Street Tree Maintenance Programs** Increase funding for Public Works Bureau of Street Services Urban Forestry Division (UFD) for tree maintenance to increase City crews or to fund contractual work for the City's street tree maintenance program, including inspection and tree trimming.	Ch 7	Yes - request resource
g. **Park Tree Tree Maintenance Programs** Increase funding for Department of Recreation and Parks Forestry Division (RAP Forestry) for tree maintenance to increase City crews or to fund contractual work for the City's park tree maintenance program, including inspection and tree trimming.	Ch 7	Yes - request resource
h. **Tree Trimming Permit Oversight and Enforcement** Increase funding for additional oversight of street tree trimming permits and for enforcement capacity to inform the public and deter bad actors. Increase Public Works Bureau of Street Services Urban Forestry Division (UFD) staffing to support tree trimming permit oversight and to provide enforcement for inappropriate tree trimming.	Ch 7	
i. **Tree Removal Requests Oversight** Increase staffing levels for timely review of tree removal permit requests for street, park, and private property protected trees in all responsible City departments, such as Department of Recreation and Parks Forestry Division (RAP Forestry), Public Works Bureau of Street Services Urban Forestry Division (UFD), City Planning, and/or Los Angeles Department of Building and Safety (LADBS).	Ch 8	Yes - request resource
j. **Tree Protection Measures and Mitigation Tree Planting Enforcement** Increase staffing levels for enforcement of requirements for protecting retained trees and planting mitigation trees in all responsible City departments, such as Department of Recreation and Parks Forestry Division (RAP Forestry), Public Works Bureau of Street Services Urban Forestry Division (UFD), Los Angeles Department of Building and Safety (LADBS), Public Works Bureau of Engineering (BOE) and/or the Public Works Bureau of Contract Administration.	Ch 8	Yes - request resource
k. **Tree Protection Violation Response and Enforcement** Increase staffing levels and technical capacity for timely response to illegal tree removals or other protection violations, including for investigating, researching, and creating staff reports in response to violations to support enforcement mechanisms and response for all responsible City departments, such as Department of Recreation and Parks (RAP), Public Works Bureau of Street Services Urban Forestry Division (UFD), Public Works Bureau of Street Services Investigation and Enforcement Division (IED), City Planning, and/or Los Angeles Department of Building and Safety (LADBS).	Ch 8	

DRAFT

Strategies and Actions	Related Chapter	Implementation Plan Inclusion
l. **Illegal Tree Removals on Nights and Weekends Response** Assess best method for supporting enforcement response to illegal activities outside of regular City working hours, including in the evenings and on the weekends, and provide additional funding to implement.	Ch 8	
m. **Trees at City Facilities** Provide additional funding and staffing to the City departments responsible for tree management around City facilities and on City-owned properties either for direct work and/or high-quality contractual oversight.	Ch 3	
n. **Residential Tree Planting Programs** Continue providing funding for residential tree planting through Los Angeles Department of Water and Power (LADWP) or other programs.	Ch 6	Yes
o. **Trees Managed by Proprietary Departments** Ensure the City's proprietary departments, including Los Angeles Department of Water and Power (LADWP), Los Angeles World Airports (LAWA), and the Los Angeles Harbor Department, assign funding for comprehensive urban forest management for trees under each department's jurisdiction.	Ch 3	
p. **Public Education Campaigns** Conduct research and pursue processes to establish reliable funding sources for public education related to urban forestry.	Ch 4 Ch 9	
G-5 Elevate Urban Forest Needs in City Budget Process Assess possible methods to elevate urban forestry needs within the budget process, including exploration of structural changes to create new divisions and/or bureaus. Enact the changes identified by City policy-makers and department leadership as the most effective. **Priority Recommendation**		
a. **Support Multi-year Urban Forest Costs** Assess the best method for developing a budget process that considers the long-term nature and impacts of urban forestry work. This should include consideration of efficiencies and cost-savings gained through proactive, inspection-based tree maintenance programs and contract processes needed to address multi-year urban forestry costs, such as contract-grow contracts.	Ch 3 Ch 6 Ch 7	
b. **RAP Forestry** Assess and implement structural changes that elevate the Department of Recreation and Parks Forestry Division (RAP Forestry) within the City's budget process.	Ch 3	Yes
c. **StreetsLA UFD** Consider structural changes to the Public Works Bureau of Street Services (StreetsLA) Urban Forestry Division (UFD) to ensure sufficient resources are directed to tree planting and permitting oversight alongside other tree-related management responsibilities.	Ch 3	Yes
G-6 Explore Novel Funding Streams Continue to explore novel funding streams to support urban forest management as new ideas and opportunities arise. (Included in Chapter 10 Summary of Recommendations)		
a. **Reporting on Research** Include research and work done to explore novel funding stream ideas in future Five-year Implementation reports and/or regular budgetary evaluations.	Ch 10	Yes

Strategies and Actions	Related Chapter	Implementation Plan Inclusion
b. **Carbon Markets** Explore the possibility of utilizing carbon markets to prioritize tree preservation and provide modest funding for the urban forest. Research and create processes for developing and trading urban forest carbon registry projects.	Ch 2	

Five-Year Implementation Plan

See the Strategic Plan section for notation of which strategies and actions are identified for inclusion in the first five-Year Implementation Plan

The first five-year Implementation Plan will be included in the next draft of the UFMP and will detail steps to be taken by City departments to take action toward achieving the Strategic Plan. The Implementation Plan will include actions connected to the Priority Recommendations along with other strategies that were selected based on the following criteria:

- Community priorities heard during public engagement for the UFMP
- Existing work programs and activities planned or in progress
- Strategies identified by OFM as key areas where early action will greatly impact overall efficiency and outcomes for the urban forest
- Current City resources

The Implementation Plan looks to provide a realistic set of actions for the City to accomplish in the first five years after UFMP adoption. However, a lack of existing resources and/or capacity to take action on a strategy was not a strict limiting factor. The UFMP Priority Recommendations, and therefore Implementation Plan, include both addressing a 5-7 year maintenance cycle for street and park trees and working toward sustainable, evergreen funding. The goal of the Implementation Plan is to provide public transparency and accountability for progress on the UFMP Strategic Plan that can be updated on five-year intervals. It also seeks to focus the City on a limited set of ideas that are timely, important, and achievable.

DRAFT

Appendices

Appendix A List of City and Non-City Entities That Impact the Urban Forest

Appendix B Urban Forest Governance: State and Federal Codes, Laws, and Regulations

Appendix C Urban Forest Governance: City Codes and Ordinances

Appendix D Urban Forest Governance: Los Angeles General Plan Elements

Appendix E Urban Forest Governance: Recent City Assessments, Plans, and Mayoral Initiatives

Appendix F 1993 Urban Forest Task Force Review

Appendix G 2015 State of the Street Tree Report

Appendix H 2018 First Step: Developing an Urban Forest Management Plan for the City of Los Angeles Report

Appendix I 2019 City Controller Tree Trimming and Maintenance Audit and 2023 Update

Appendix J Job Classification Analysis

Appendix K Tree Canopy Equity Priority Index

Appendix L Summaries of Tree Canopy Cover by Different Geographic Boundaries

Appendix M City Managed Tree Inventory Stability Metrics

Appendix N Heritage Tree Program

Appendix O June 2015 Board of Public Works Street Tree Removal Permit and Tree Replacement Policies

Appendix P Tree Related City of Los Angeles Liability Claims Payouts

Appendix Q Urban Forest Financing Study (UFFS)

DRAFT

Appendix A - List of City and Non-City Entities That Impact the Urban Forest

City Departments and Offices:

- **Department of Public Works (Public Works)**
  - Board of Public Works (BPW)
    - BPW
      - Oversees approval/denial of street tree and protected tree removals when three or more trees are requested for removal
      - Delegates authority to Urban Forest Division (UFD) for oversight of street tree and protected private property tree programs
      - Approves contracts for the Bureaus
    - Office of Community Beautification (OCB)
      - Oversees certain contracts for tree planting and tree establishment activities by nonprofit partner organizations
  - Bureau of Street Services (StreetsLA), Public Works
    - Urban Forestry Division (UFD)
      - Oversees street tree programs, including crew delivery of services, plan review, permitting, enforcement, and contracting when outside contractors are utilized
      - Conducts routine activities, such as tree trimming, removal, stump removal, root pruning, and tree planting
      - Provides activities in response to MyLA311 requests, such as tree emergencies, obstructions, violations, inspections, and bee-related inspections
      - Provides oversight and permitting for Protected Tree and Shrub Ordinance activities
      - Supports StreetsLA's capital improvement construction delivery and Bureau of Engineering (BOE) Sidewalk Repair Program through review, oversight, and management of street trees within the construction area
      - Develops street tree policy guidelines and recommendations for consideration by the BPW
    - Investigation and Enforcement Division (IED)
      - Functions as the City's primary law enforcement agency for protecting street trees

DRAFT

        - Enforces City ordinances protecting street trees from damage and abuse, in partnership with UFD, by using its law enforcement authority to investigate cases, issue citations, and pursue criminal charges when warranted
    - Engineering Services Division (ESD)
        - Includes a team of landscape architects
        - Designs tree- and landscape-based improvements in parkways and medians
        - Reviews private and government projects in the public right-of-way involving trees, landscape, and irrigation
        - Integrates green infrastructure into active transportation and greening projects and helps secure transportation grants that expand tree planting, landscaping, and permeability
        - Coordinates with UFD and BOE on policies and tree-related City standard plans and manages the StreetsLA Public Right-of-Way Landscape Design Standards and Guidelines
        - Provides oversight and coordination for Metro and LAWA projects, including reviewing landscape architecture, bus zones, and urban forestry plans; coordinating construction support with UFD and the Bureau of Contract Administration; serving as liaisons among Metro and StreetsLA divisions; and updating policies and standards.
- Bureau of Sanitation and Environment (LASAN), Public Works
    - Applies for and manages street tree planting grants, requiring coordination with UFD for permit issuance and OCB for use of existing contracts with nonprofit partners
- Bureau of Engineering (BOE), Public Works
    - Plants trees as part of capital improvement projects
    - Maintains standard plans, including those related to tree planting and spaces in the public right-of-way for trees, in consultation with StreetsLA ESD and UFD
    - Issues A- and B- permits for creation of new tree wells
- Bureau of Street Lighting (BSL), Public Works
    - Maintains tree clearance requirements for street and pedestrian lights

DRAFT

- **Department of Recreation and Parks (RAP)**
  - Forestry Division (RAP Forestry)
    - Oversees all park tree programs spread across 16,000 acres of parkland, including crew delivery of services and contracting when outside contractors are utilized
    - Provides routine activities, such as park tree trimming, removal, stump removal and tree planting
  - Board of Recreation and Park Commissioners
    - Oversees protected trees on parklands
    - Reviews and approves/denies policies, such as the RAP Urban Forest Manual
- **Los Angeles City Planning (City Planning)**
  - Citywide Policy Planning Bureau
    - Office of Forest Management (OFM)
      - Conducts strategic, long-range, urban forest planning
      - Provides technical expertise, analysis, and support to City leadership,other City departments, other units within City Planning, and external partners
      - Collaborates regionally, with other government agencies and research partners
      - Develops, assesses, and updates citywide policies impacting trees
    - Urban Design Studio
      - Develops guidelines, standards, zoning code amendments, and citywide policies to advance high-quality urban design, climate-adapted landscape design, urban forest canopy expansion and tree preservation for private properties and the public realm
      - Works at the intersection of private development design review and interdepartmental coordination to support the activation and enhancement of streets and public spaces
      - Develops implementation procedures to improve coordination and collaboration across City departments
      - Develops street concept plans that improve safety and deliver shade.
      - Develops design related resources for City Planning to provide guidance and raise awareness of urban design best practices and expectations for new projects undergoing City review

DRAFT

        - Develops wayfinding strategies that enhance connectivity and improve access to open spaces, the LA river and neighborhood amenities
    - Code Studies
        - Zoning Code Amendments codifying private property standards and procedures related to trees
- Project Planning Bureau
    - Supports development projects, which may include tree removals and required tree planting
- Community Planning Bureau
    - Maintains and updates to the City's 34 Community Plans that make up the Land Use Element of the Los Angeles General Plan

- **Los Angeles Department of Water and Power (LADWP)**
    - Funds the Free Trees Program, historically known as City Plants, that focuses on energy efficiency along with other environmental programs and initiatives
    - Develops and maintains LADWP policies for line clearance requirements
    - Conducts line clearance tree trimming to clear power systems from vegetation interference
    - Is responsible for roughly 3,103 acres (or 4.8 square miles) of LADWP managed lands, including management of trees
    - Conducts vegetation management, including tree trimming and removal as required, for Water Operations infrastructure maintenance and State Division of Safety of Dams inspection requirements
    - Performs brush clearance in compliance with the Los Angeles Municipal Code (LAMC) requirements
- **Department of Building and Safety (LADBS)**
    - Oversees and issues building permits, including grading and demolition permits, which can have impacts on existing trees
    - Enforces compliance of the Landscape and Site Design Ordinance
- **Department of Transportation (LADOT)**
    - Plants trees as part of some transportation related capital improvement projects
    - Maintains the LADOT Manual of Policies and Procedures (MPP), which includes some tree spacing considerations

DRAFT

- **Emergency Management Department (EMD)**
  - Climate Emergency Mobilization Office (CEMO)
    - Provides strategic, long-range planning related to heat and shade equity needs, and assists in the City's response to extreme heat events affecting the region
- **Los Angeles Fire Department (LAFD)**
  - Oversees brush clearance regulations and compliance, including providing annual notifications to property owners, guidance for compliance, and enforcement
- **General Services Department (GSD)**
  - Manages City facilities and properties
  - Manages procurement of goods for City departments
  - Performs fleet and equipment repair for departments
- **Los Angeles World Airports (LAWA)**
  - Manages trees on LAWA managed lands
  - Oversees the LAWA dunes restoration work
- **Los Angeles Harbor Department (Harbor Department)**
  - Manages trees within the Port of Los Angeles (Port)
- **Office of the City Administrative Officer (CAO)**
  - Assists the Mayor and Council in the preparation of the City budget and provides grant, financial, and contractual analysis, including analysis of climate adaptation and climate mitigation impact.
  - Provides oversight for asset management, municipal facilities, and physical plant capital projects.
  - Provides oversight of Citywide debt administration, procurement, and risk management services.
- **Office of the City Controller (Controller)**
  - Approves all City payments
  - Provides financial and performance audits of City departments
- **Office of the City Attorney (City Attorney)**
  - Provides legal advisor to City leadership, departments, boards and commissions
    - Drafts and/or reviews proposed legislation
    - Considers risk and potential for litigation
    - Reviews contracts
  - Prosecutes misdemeanors on behalf of People of State of California
  - Defends against lawsuits filed against the City

DRAFT

City Policymakers:

- Mayor's Office
  - Directs department priorities
  - Drafts and approves the City budget
- Council Offices
  - Sets City policy directions and can instruct departments to take action through council file report backs
  - Reviews, provides a public hearing, and approves the City budget

Community Advisory Groups

- Community Forestry Advisory Committee (CFAC)
  - Provides public forum to discuss urban forestry
  - Provide community impact statements to City leadership on policies that impact the urban forest
- Neighborhood Councils and Neighborhood Council Sustainability Alliance (NCSA)
  - Provide public forums for discussion of neighborhood specific concerns and sustainability topics
  - Provide community impact statements to City leadership on policies

Non-City Entities

- Nonprofit organizations
  - Applies for and implements tree planting grants
  - Develops and delivers community engagement and education
  - Occasionally leads or implements community or neighborhood specific planning initiatives
- Private companies
  - Conducts tree trimming (private property and street trees)
  - Conducts tree planting (private property and development projects)
  - Develops tree reports
- Property owners (residential, community areas, commercial, and industrial)
  - Tree planting, trimming, and other management on private property
  - Sometimes impacts street tree planting and trimming

DRAFT

Appendix B - Urban Forest Governance: State and Federal Codes, Laws, and Regulations

State and Federal Codes, Laws, and Regulations

There are many local, state, and federal codes, ordinances, and other legislation that impact the urban forest. This section gives an overview of these, with a short description of their content. Some of the content within this section comes from an internal report that a StreetsLA contractor drafted in 2022. Recommendations for updates to the various statues, rules, and codes that impact the urban forest are included throughout this UFMP.

California Public Utilities Commission

Rule 95; Section III; 35 Vegetation Management requires clearance between trees and vegetation and overhead conductors to allow for safe and reliable service.

California State Public Resources Code (PRC)

AB 3074 (2020) requires property owners and managers of occupied structures within the High/Very High Fire Hazard Severity Zones to use more intense fuel reductions between 5 and 30 feet around the structure (Zone 1), and to create an ember-resistant zone within 5 feet of the structure (Zone 0). This requirement is in addition to the existing requirement for maintenance of a defensible space of 100 feet from each side and from the front and rear of the structure (Zone 2).

Section 4292 This section of the PRC requires electrical transmission and distribution lines to have 10 feet of clearance around poles or towers that support switches, fuses, transformers, lighting arrestors, line junctions, or dead/corner poles. This does not apply to lines exclusively used for telephone, telegraph, telephone or telegraph messenger call, fire or alarm line, or other line which is classed as a communication circuit by the Public Utilities Commission.

This section allows for the director or agency which has primary fire protection responsibility for the protection of such areas may permit exceptions from the requirements of this section which are based upon the specific circumstances involved.

California Environmental Quality Act (CEQA)

CEQA is a state law that requires all state, municipal, and private projects to include an environmental impact assessment. These projects must produce an environmental review document through a public process. The document must analyze alternative project options, identify and estimate costs for mitigation options to address project

impacts, and report on public involvement in the development of the environmental review process. There are certain allowances that exempt projects from CEQA review, including tree planting projects in urban areas. Projects that will remove trees are required to comply with CEQA.

National Environmental Protection Act (NEPA)

NEPA is a federal law that requires any project receiving federal funding or on federal land to include an environmental impact assessment. These projects must produce an environmental review document through a public process. The document must analyze alternative project options, identify and estimate costs for mitigation options to address project impacts, and report on both the cost of and public involvement in the development of the environmental review.

DRAFT

Appendix C - Urban Forest Governance: City Codes and Ordinances

Los Angeles Charter and Administrative Code

Section 590 of the Los Angeles Charter and Administrative Code establishes the Department of Recreation and Parks (RAP) as the City department with authority over all park land, including park trees. This responsibility includes establishment, construction, maintenance, and operational control.

Los Angeles Municipal Code (LAMC)

Chapter I (Zoning Code); Article 2; Section 12.21 G includes requirements for open space, including a minimum percentage of common open space planted with trees, shrubs or ground cover for private property residential development projects with six or more units.

Chapter I (Zoning Code); Article 2; Section 12.40 Landscape - General Requirements includes the landscape requirements for development projects within the City, which include tree requirements for projects.

Chapter 1A (New Zoning Code); Article 1; Division 1.5; Section 1.5.5 Targeted Planting Map establishes the Targeted Planting Map, including the River Planting Area and the Filtration Planting Area, and relevant plant palettes for trees and other landscaping.

Chapter 1A (New Zoning Code); Article 2; Part 2C; Division 2C.3 Amenity includes requirements for lot amenity space to be used for active or passive recreation, including a minimum percentage of outdoor amenity space shaded with trees.

Chapter 1A (New Zoning Code); Article 4; Part 4C; Divisions 4C.6.2 and 4C.6.4 include requirements for tree planting and plant design and installation.

Chapter 1A (New Zoning Code); Article 4; Part 4C; Division 4C.8.; Section 4C.8.1 Frontage Screens includes requirements for screening certain uses with trees and other plants to mitigate significant impacts on the public realm.

Chapter 1A (New Zoning Code); Article 11; Division 11.1; Section 11.1.3.P Protected Vegetation Regulations details protected tree regulations as they pertain to subdivision projects.

DRAFT

Chapter IV; Article I; Section 41.31 Trees - Injury To is intended to protect street trees from purposely and willfully being injured or destroyed by residents and gives municipal violation fine options to City code enforcement officers.

Chapter V; Article 6; Section 56.08 Sidewalks - Streets - Obstructions requires property owners with street frontage to maintain trees and other vegetation that grows into the public right-of-way. This section is also applicable to any other obstructions stemming from a property into the public right-of-way.

Chapter V; Article 7 (Fire Code); Section 57.4906 Vegetation Management requires property owners to engage in fire safety activities relating to vegetation management to reduce potential fuel for wildfire. Requirements include acceptable equipment and conditions for brush clearance to occur. It also specifies the areas that need to be cleared, acceptable height of brush, and trimming and spacing for shrubs and trees.

Chapter VI; Article 2; Sections 62.61 establishes a requirement to obtain a permit from BOE or StreetsLA in order to conduct work within a public street or the public right-of-way. This section also discusses penalties for violations.

Chapter VI; Article 2; Sections 62.104, 62.161-62.178, and 62.200 discusses the Board of Public Works' (BPW) authority and jurisdiction over street trees. This includes the following: potential conflict between trees and sidewalks; BPW authority and jurisdiction over the planting, establishment care, maintenance and pest management, and removal of street trees; the BPW responsibility for oversight of permitting for these activities; the BPW responsibility to track all planting records for street trees; and street trees requirements within the visibility triangle of an intersection.

City of Los Angeles Ordinances

Street Tree Permit Fees - Ordinance No. 166973
This ordinance amends the sections of the LAMC that establish fees for issuance of permits to remove a street tree and for maintenance provided by the City for street trees required as part of the development process. This ordinance establishes that the maintenance fee must cover the first five years of care after planting.

Tree Replacement and Planting In-Lieu Fee Ordinance - Ordinance No. 185573
This ordinance, referred to as the Guarantee Tree Fee (GTF) Ordinance, was adopted in 2018 to add Section 62.177 to the LAMC to establish a tree replacement and planting in-lieu fee to satisfy the City's tree planting requirements when a required tree cannot be planted on-site. Fees are paid into the Public Works Trust Fund and originate from either

street tree removals or tree planting requirements on private property as part of development cases. Fees cannot be paid in-lieu of tree planting requirements originating from approved tree removals from the Protected Tree and Shrub Ordinance (PTO).

Street Tree Inspection Clearance Fee - Ordinance No.186476
This ordinance established a street tree inspection clearance fee to be utilized when the Department of Building and Safety (LADBS) requires a tree inspection from StreetsLA before issuance of a building or land use permit.

Protected Tree and Shrub Ordinance (PTO) - Ordinance No. 186873
The PTO updates the LAMC with the intent to preserve six separate species of trees and shrubs that are indigenous to Southern California. The ordinance is applicable to individual specimens of these species that are not grown or held for sale by a licensed nursery, or planted or grown as a part of a planting program, and that are four inches or greater in diameter at standard height (four and a half feet from the ground). For multitrunked trees or shrubs, the diameter is measured cumulatively for all trunks.

- Protected Trees:
  - Oak species including valley oak (*Quercus lobata*) and coast live oak (*Quercus agrifolia*), or any other tree of the oak genus indigenous to Southern California but excluding the scrub oak (*Quercus berberidifolia*).
  - Southern California black walnut (*Juglans californica*)
  - Western sycamore (*Platanus racemosa*)
  - California bay (*Umbellularia californica*)
- Protected Shrubs:
  - Mexican elderberry (*Sambucus mexicana*)
  - Toyon (*Heteromeles arbutifolia*)

Landscape and Site Design Ordinance (LSDO) - Ordinance No. 189065
City Planning is in the final adoption phase of updating the LSDO, which would replace Sections 12.40-12.43 of the LAMC. The draft updated Ordinance establishes Landscape and Site Design Standards and a Point System that allows for flexible compliance in meeting point targets based on project type. The Point System includes various mandatory and optional points related to both tree planting and tree preservation. Also included in the LSDO is a requirement for completion of the Tree Disclosure Statement, a long-term maintenance plan for landscaping, and a street tree planting requirement, with the total number of required trees calculated based on parcel frontage. This is the first such standard street tree requirement for the City and is applicable to commercial and industrial projects as well as residential projects with five or more units.

DRAFT

[This page left intentionally blank]

DRAFT

Appendix D - Urban Forest Governance: Los Angeles General Plan Elements

The City's General Plan consists of 11 citywide elements (or chapters) in addition to a Land Use Element, which is composed of 34 Community Plans. The General Plan prescribes policy goals and objectives that inform land use decisions, and ultimately shape and guide the physical development of the City. Policies related to urban trees and canopy currently exist in many elements, and the urban forest is either impacted by or can positively impact topics covered in each element.

General Plan Elements typically include a limited number of high level goals, with objectives and policies organized beneath them. Elements also have programs, which are distinct actions that could be taken by the City to carry out the Element's goals and policies if resources and/or funding are provided.

Framework Element (2001)
The General Plan Framework Element was adopted in 1996 and updated in 2001. The Framework Element is considered to be the organizing element that connects all the elements of the General Plan. It is a strategy for long-term growth that sets a citywide context to guide the subsequent amendments of the City's Community Plans, zoning ordinances, and other pertinent programs. The Element is a comprehensive, long-range document containing purposes, policies, and programs for the development of the City of Los Angeles and responds to State and Federal mandates to plan for the City's future. The element addresses street trees in the chapter on Urban Form and Neighborhood Design.

Community Plans of the Land Use Element (various dates)
The Community Plans establish neighborhood-specific goals and implementation strategies to achieve the broad objectives laid out in the City's General Plan. Together, the 34 Community Plans make up the General Plan's Land Use Element, which plays an important role in bolstering housing and job opportunities, conserving open space and natural resources, and balancing different neighborhoods' needs. Each Community Plan consists of a policy document and a land use map. The policy document lays out the community's goals, policies, and programs, while the land use map identifies where certain uses (such as residential, commercial, and industrial) are permitted. Together, the policy document and land use map inform local zoning decisions. Each Community Plan responds to local conditions and needs, and together they contain a variety of policies related to urban trees.

DRAFT

Housing Element (2021-2029)
The update to this Element, also called the Plan to House LA, was adopted in 2021 and approved by the California Department of Housing and Community Development in 2025. It details five goals with related objectives and policies and 136 programs. Trees or urban forestry are directly referenced within one policy and five programs. This includes programs focused on utilizing trees to support lowering energy use in buildings, planning for housing that supports open space and trees to provide health and environmental benefits, identifying opportunities to increase shade from tree canopy within the public right-of-way, and increasing investments in underinvested communities such as those with low tree canopy cover.

Safety Element (2021)
This Element was adopted in 1996 and received a targeted update in 2021 and a technical amendment in 2025 to integrate the City's latest Local Hazard Mitigation Plan (2024-2029). It details three goals with related objectives and policies and 54 potential programs. Trees and urban forestry are directly referenced minimally throughout the Element, with three programs having direct references. Urban trees are indirectly referenced more frequently, with eight policies and five programs containing indirect references through terms such as open space, ecology, and environment. This includes policies related to maintaining open space within Very High Fire Hazard Severity Zones, taking mitigation actions in areas that are prone to landslide or within flood zones, sequestering carbon, considering stormwater management, creating more green spaces within the City, and protecting the natural environment and historic or cultural resources. Programs include those focused on increasing stormwater capture, resilience related to wildfire safety, urban forest and canopy expansion, and reducing the urban heat island through design and installation of shading elements.

Health Element (2021)
This Element, also called A Plan for a Healthy Los Angeles, was formally adopted in 2015, with a technical update in 2021. It includes seven topic areas, or goals, with related objectives and policies and 91 potential programs. Trees and urban canopy are referenced as part of the vision for a healthy City within this Element. Trees are also directly referenced in one policy and two programs and are indirectly referenced in an additional 14 policies and eight programs through terms such as open space, environment, and landscaping. Direct references include a policy related to healthy school environments, and programs related to healthy building design guidelines for landscaping and urban forest and canopy expansion. The indirect references in policies include those related to environmental justice, increasing access to nature, parks, and open space, carbon sequestration, urban agriculture, and the City’s resilience to climate risks such as

DRAFT

extreme heat. Indirect references in programs include those focusing on increasing open space and landscaping on private property, increasing access to parks and open space, preparing for increased heat in the region, addressing conservation easement opportunities, and looking at de-paving opportunities.

Mobility Element (2016)
This Element, called the Mobility Plan 2035, was adopted in 2016 and includes five topic areas, or goals, with related objectives and policies and 172 potential programs. Trees and the urban forest are directly referenced in six policies and two programs and indirectly referenced in another seven programs through terms such as greenway and landscaping. Policies with direct urban tree references include those related to adaptive reuse of streets, pedestrian infrastructure, access for all, multi-modal features, improved communications for street improvements, and green streets. Programs with direct references to trees are those related to utilizing natural shade for street and pedestrian facilities. Programs with indirect references are those related to landscaping, greenways, and green alley and street features. While trees have limited direct and indirect references throughout the programs in this Element, creative design and re-design that create space for large stature trees would support many of the programs related to increased safety for pedestrians, bikes, and other non-car transportation users.

Air Quality Element (1992)
This Element was adopted in 1992 and includes six goals, with related objectives, policies, and programs. The only direct or indirect reference to trees within this Element is in goal five, which references tree planting as a conservation measure for energy efficiency.

Noise Element (1999)
This Element was adopted in 1999 and has no direct or indirect references to the City's urban forest.

Infrastructure Element (various dates)
This Element includes the City-Collected Refuse Disposal Plan (adopted in 1972), the Power System Plan (adopted in 1968), the Sewerage Plan (adopted in 1968), the Water System Plan (adopted in 1969) and has no direct or indirect references to the City's urban forest.

Public Facilities and Services Element (various dates)
This Element includes the Historic and Cultural Monuments Plan (adopted in 1968), City Owned Power Transmission Rights-of-Way Development Plan (adopted in 1969), the Major Equestrian and Hiking Trails Plan (adopted in 1968), the Public Libraries Plan

DRAFT

(adopted in 1968), the Public Recreation Plan (adopted in 1980), and the Public Schools Plan (adopted in 1968). It includes limited references to the City's urban forest. The Historic and Cultural Monuments Plan includes "Sites with significant trees or other plant life" in the City's criteria for defining cultural or historical monuments. The City Owned Power Transmission Rights-of-Way Development Plan indicates that park locations created under power transmission rights-of-way should limit the height of trees to 15 feet tall.

Conservation Element (2001)
This Element was adopted in 2001 and contains 20 topic areas, or goals, with related objectives, policies and potential programs. The Element directly references trees as they relate to "corridors (tree lined streets)" that are eligible for protection by the Cultural Heritage Commission via inclusion on the Historical-Cultural Monuments list, protections provided to oak species via the City's then Oak Tree Ordinance, and the Angeles National Forest. Trees are included in many goals, policies, and programs as part of the larger environmental and local ecology. These policies and programs refer to the continuing need to evaluate land development activities but focus more heavily on protecting natural habitats and corridors, especially in less developed areas. The Element indicates that both the Open Space and Conservation Elements are locations in the General Plan that address parks and other urbanized spaces where much of the City's urban canopy exists.

Open Space Element (update in progress)
The Open Space Element was last adopted in 1973 with limited references to trees within the context of cultural or historical sites and ecologically important areas. City Planning is currently updating the Open Space Element as required by recent state legislation (Senate Bill 1425, 2022), with anticipated adoption in 2027. The essential role of the urban forest in supporting environmental justice, climate resilience, public health, local wildlife and preventing further biodiversity loss is being carefully integrated throughout the updated goals, policies, objectives, and programs of the Element. Updated policies also support tree canopy expansion and tree preservation in areas where it is needed most, such as neighborhoods disproportionately impacted by extreme heat and lower levels of tree canopy cover. OFM has worked closely with the open space team to ensure updates align with the UFMP.

DRAFT

Appendix E - Urban Forest Governance: Recent City Assessments, Plans, and Mayoral Initiatives

City Assessments

Climate Vulnerability Assessment (CVA), 2025

City Planning, through the Environmental Justice Policy work program, conducted a Climate Vulnerability Assessment (CVA). The CVA included in-depth analysis of climate hazards, mapping areas likely to be impacted by the climate hazard, and developing recommendations of strategies the City could utilize to mitigate those hazards. Additionally, the CVA examined socioeconomic factors and physical conditions across the City to identify the most vulnerable communities. Extensive community engagement was conducted with local community partners to better understand the lived experience of those most likely to be negatively impacted by climate hazards. The community feedback was used to develop the recommendations and mitigation approaches, which include strategies related to trees along with other nature-based solutions for the climate hazards of Extreme Heat, Extreme Precipitation and Flooding, Wildfire, Drought, Sea Level Rise and Climate-Related Public Health. The community feedback and recommended strategies were reviewed and incorporated into the UFMP as appropriate.

Biodiversity Index Baseline Report, 2022 and 2025

The Public Works Bureau of Sanitation and the Environment (LASAN), through the previous Biodiversity Program, developed a variety of resources to aid the City toward the goal of protecting and enhancing urban biodiversity. This included an initial assessment of the Singapore Index's applicability to LA in the 2018 Biodiversity Report, the development of the locally specific LA City Biodiversity Index and proposed Ecotope framework in 2020 to assist in management and monitoring, a baseline measurement of the Index in 2022, and an interim assessment in 2025. Additionally, Biodiversity Guidelines were developed in 2023 in coordination with the County, and other educational resources about biodiversity in the City have also been created, such as an Urban Nature Guidebook and Indicator Species Guidebook. The LASAN Biodiversity team developed and managed a Biodiversity Expert Council and Interdepartmental Working Group. The team also compiled and tracked progress on targets and goals set in Departmental Biodiversity Reports, as requested by the City Council for 2022, 2023, 2024, and 2025.

OFM relied heavily on the expertise and leadership of LASAN's Biodiversity staff to define the City's goals and priorities related to biodiversity and to consult with OFM on how urban forest management activities could best align with and support those goals. The Biodiversity Guidelines in particular were reviewed and incorporated into applicable UFMP

recommendations. Existing and potential future Biodiversity Reports will be consulted as appropriate in developing subsequent work products outlined in the UFMP Strategic Plan.

City Plans

Climate Action and Adaptation Plan (CAAP), expected 2027

The City Administrative Officer's (CAO) Climate Impact Team is currently developing a Climate Action and Adaptation Plan (CAAP) expected for release in early 2027. The CAAP will identify long-term and intermediate climate goals and will include an implementation plan for mitigating and adapting to the negative impacts of greenhouse gas emissions while providing secondary pollution, health, energy, and economic benefits to communities and residents in the City. The CAAP shall provide a framework for the City to plan, implement, and monitor progress towards climate goals to achieve carbon neutrality by no later than 2045.

Heat Action and Resilience Plan (HARP), expected 2027

The Climate Emergency Mobilization Office (CEMO) within the Emergency Management Department (EMD) is developing a Heat Action and Resilience Plan (HARP). OFM has worked closely with this team to ensure recommendations within the HARP and UFMP align, as a primary benefit of trees in urban Los Angeles is to address urban heat island effect and provide shade and cooling as critical protection for residents from extreme heat. The structure of the HARP will largely follow the format of the State's Extreme Heat Action Plan. UFMP findings and recommendations will likely be included in Track C: Built Environment and Transportation Resilience and Track D: Utilize Nature-based Solutions.

Mayoral Initiatives

Mayor Bass' Climate Action Plan for Los Angeles, 2026

Mayor Bass' Climate Action Plan for Los Angeles was released in April 2026. Focused on implementation, the Mayor's plan includes four high-level goals, 14 objectives, and over 50 targets/actions. The Mayor established a Climate Cabinet with representation from City leadership and key Departments to drive these climate actions. In alignment with the draft of this UFMP, the plan includes the following target for the City's urban canopy: "Increase overall tree canopy cover to cover 25% citywide by 2035, ensuring at least 15% canopy in all neighborhoods, and prioritizing heat-vulnerable communities."

Capital Infrastructure Plan (CIP), 2026

The Capital Infrastructure Plan (CIP) was released in 2026 as part of Mayor Bass' Capital Infrastructure Program. The CIP aims to create a single unified plan for the City that improves how planning and investment are addressed. This is a shift away from past

processes that presented infrastructure projects and maintenance of City facilities in a fragmented and disjointed way with information scattered over a variety of reports, including the annual budget and Capital and Technology Improvement Plan (CTIP), and siloed City department capital plans. The CIP will act as a roadmap to fund, fix, and build the infrastructure the City needs to thrive.

LA's Green New Deal: Sustainable City pLAn, 2019

LA's Green New Deal: Sustainable City pLAn (GND) was released in 2019 under Mayor Garcetti's administration. It includes a strategic set of fifteen targets, milestones and initiatives related to trees in the Urban Ecosystems and Resilience chapter. This included the completion of a UFMP. Outstanding initiatives from the GND are included or have been modified for inclusion in this UFMP, both in the substance surrounding challenges and opportunities faced by the City and as strategies and objectives within the Strategic Plan.

DRAFT

[This page left intentionally blank]

DRAFT

Appendix F - 1993 Urban Forest Task Force Review

In 1993 the City Council's Public Works Committee convened a task force to assess the needs for creating a healthy urban forest with strong community input. The two main recommendations from this task force have now been accomplished - the first in 1993 with the creation of the Community Forest Advisory Committee (CFAC) and the second 26 years later in 2019 with the hiring of a City Forest Officer, and thus creation of the Office of Forest Management (OFM).

1993 Urban Task Force Recommendations:

- Appoint a 16-member Community Forest Advisory Committee (CFAC) to act as advocates for the community forest.
- Hire a Director of Community Forestry to… provide technical expertise to the Board [of Public Works], the City Council, the Mayor, Recreation and Parks Commission, CRA Board, LADWP Commission and other agencies.

The task force based its recommendations on the following findings, many of which continue to be challenges facing the City's urban forest today. The findings that remain relevant are addressed in the recommendations included within the UFMP.

1993 Report Findings	Current Status
There is no centralized planning for the urban forest as a whole. There is no clearinghouse for information on the latest methods of urban forestry. There is no coordination between departments and agencies on techniques for maintaining the urban forest, or planning its growth.	OFM is tasked with long-range planning for the whole urban forest. This UFMP aims to provide a roadmap to City decision-makers and departments for the next 50 years. OFM also serves as the City's lead expert in developing, analyzing, and recommending policies, general methods, and procedures; as well as researching, tracking, and advising on current and emerging urban forest best management practices and issues. OFM carries out this role in coordination with City departments whose jurisdictional, technical, and operational expertise helps inform citywide policy, planning, and best practices. The resources currently allocated to OFM are not sufficient to provide this support to gain alignment in activities related to trees citywide, across the 40+ departments within the City, to leverage external partnerships and opportunities, and to engage stakeholders to develop neighborhood level planning. Work toward this end proceeds at the pace that is feasible with existing resources.
City budget cuts have eliminated funding for any new street trees, and have reduced the level of routine tree pruning to once every 17 years.	The Los Angeles Department of Water and Power (LADWP) Free Trees Program (historically known as the City Plants program) includes some funding for street trees. UFD has been funded in recent years to plant 500 to 2,000 trees per year but hasn't been funded to perform permitting activities at the level required for the LADWP program or additional partner planting. Decisions about funding levels for UFD's

DRAFT

1993 Report Findings	Current Status
	watering crews have not been linked to tree planting goals, resulting in UFD decreasing its annual planting goals so as not to have newly planted trees for which it cannot provide establishment care. Street tree trimming is currently on a 17-18 year trim cycle due to limited staff resources and funding.
Several city departments and agencies currently have oversight over trees on public property, and several additional agencies are affected by trees, or affect trees. This results in wasteful duplication of effort and direct contradiction between city departments on policies governing tree selection and care.	Since its inception in 2019, OFM has worked with limited staffing to support coordination between City departments and agencies. However, continued leadership and support from the Mayor's Office and City Council will be required.
The multitude of agencies that oversee trees on public property makes it difficult for members of the public to contact the right city agency with concerns about their neighborhood trees. There is no effective public policy advocacy for the urban forest and no avenue for public participation and support.	CFAC provides Angelenos with a tree specific public meeting where they can raise concerns and includes representatives for each Council District and the Mayor's Office. The Neighborhood Council Sustainability Alliance (NCSA) Trees Committee also provides residents with a public forum with a focus on trees. Further work is needed to provide clear and transparent communication channels between the public and the City. Feedback during the community engagement campaign for the UFMP included the on-going frustration regarding the lack of clarity for the public on who to contact regarding tree issues.
Conflicting demands for space under, above, and on the sidewalk currently limit the number and variety of trees that are planted, and frequently harms a tree's health and stunts its growth. Safety is jeopardized when a poorly selected or maintained tree obscures lights and signs and damages the sidewalk.	The City continues to lack sufficient space in the public right-of-way to allow for large stature tree species that will not result in infrastructure conflicts. This issue has a major impact on the City's tree canopy equity considerations and more work must be done to address this issue. Recommendations within this UFMP aim to address this challenge. However, significant resources will be needed in order to successfully implement these recommendations.

DRAFT

Appendix G - 2015 State of the Street Tree Report

The Department of Public Works Bureau of Street Services' (StreetsLA) 2015 State of the Street Tree Report (2015 Report) provides analysis of the Bureau's work, including scoring five population performance metrics for street trees. StreetsLA determined an overall C- grade based on the street tree assessment.

Tree species diversification	A
Tree age diversification	D
Tree stocking rate	B+
Tree health	D
Tree maintenance program	F

The 2015 Report included five recommended actions, detailed in the table below. Similar to the 1993 Urban Task Force Report, most of these recommendations are still relevant and are addressed in the recommendations included within the UFMP.

2015 Report Recommendations	Current Status
Create a street tree removal and replacement program in order to minimize the impact of dying trees, create a more sustainable age distribution, and increase tree canopy along the public right-of-way.	No such program or resources for this activity currently exist.
Increase the amount of tree planting in order to improve the street tree stocking rate.	While the StreetsLA Urban Forestry Division (UFD) direct tree planting programs have increased since 2015, consideration must be given to providing funding for both planting and watering crews in alignment with tree planting goals. Further resources are also still needed for a robust program that coordinates City-led tree planting and initiatives conducted by outside entities, such as nonprofit partners and development projects.
Conduct a street tree inventory in order to more adequately assess and manage street tree health.	A street tree inventory was completed in 2023, which is detailed and analyzed in the UFMP.
Establish a regular maintenance program in order to sustain a healthy street tree population by funding tree pruning and removal crews.	Further resources are still required to achieve proactive maintenance that keeps pace with the level of needed tree pruning and removals.
Rebuild the City's Urban Forestry Division with high level leadership that incorporates street tree management into the City's larger sustainability objectives.	Additional management and administrative staff are needed to advance priority initiatives, as existing management responsibilities leave limited capacity and dedicated support for execution.

DRAFT

[This page left intentionally blank]

DRAFT

Appendix H - 2018 First Step: Developing an Urban Forest Management Plan for the City of Los Angeles Report

The nonprofit City Plants contracted and oversaw the creation of the First Step: Developing an Urban Forest Management Plan for the City of Los Angeles report (First Step report). The California Department of Forestry and Fire Protection (CAL FIRE) and the United States Forest Service provided funding for this project. The First Step report was completed in 2018 with the stated intention "to provide a clear understanding of the current urban forest and its management, to provide perspective by comparing Los Angeles with industry sustainability standards, and to outline the future UFMP framework." The research and analysis process included interviews with key city staff and partners, as well as a monthly working group "consisting of urban forestry managers, decision-makers, sustainers, and advocates from across all city departments, non-profit organizations, and other stakeholders." The assessment of Los Angeles' urban forest management using the Vibrant Cities Lab's Community Assessment and Goal Setting Tool concluded that the City scored 2 out of a desired score of 109.

Since the completion of the First Step Report, the City has made great strides in addressing the priority recommendations outlined in the report, though some need further effort in order to be achieved. Additionally, the First Step Report included a number of key findings, many of which are aligned with findings from the 1993 Urban Task Force Report and continue to be true today. This UFMP hopes to provide both long- and short-term direction for the City's policymakers and department staff who impact trees.

First Step Report Key Findings:

- Trees are not valued in city budget and planning
- Urban forest budgets are far below necessary levels
- Dedicated staff lack direction from City leadership
- Historical and ongoing scattered approach with little follow through
- The City does not know enough about its trees
- The City's technological urban forest management tools are incomplete
- Achievable actions can close the gap
- The City lacks comprehensive urban forest planning and management guides

DRAFT

First Step Report Priority Recommendations	Current Status
1. City Council and the Mayor must prioritize the urban forest by: — Assessing its condition through a tree inventory and canopy cover analysis, — Funding a full urban forest management plan, and — Sustaining throughout future budget cycles and administrations the necessary resources and leadership needed to implement best management practices within each department managing public trees.	The UFMP utilizes the City's park and street tree inventory data and 2020 land cover data to analyse the urban forest condition. Significant funding increases are needed to achieve best management practices for the City departments managing tree assets.
2. Hire an urban forestry coordinator to make holistic changes to LA's urban forest management approach.	The Office of Forest Management (OFM) was created with the hiring of the City Forest Officer in August 2019. In order to fulfill its mandate with any speed, OFM requires increased staffing capacity and increased capacity across City departments that are involved in implementation.
3.a Increase urban forestry funding to support sustainable management. 3.b Complete an Urban Forestry Financing Plan.	Significant funding increases are needed across all responsible City departments to support sustainable urban forest management. The Urban Forest Financing Study (UFFS) was completed through partnership with the nonprofit City Plants in 2022.
4.a Complete a comprehensive tree inventory. 4.b Implement a tree management software program to facilitate tree and urban forest management.	The City completed inventories of street and park trees in 2021 and 2023, respectively. While improvements can always be made in the use of technology in urban forest management, the Department of Recreation and Parks Forestry Division (RAP Forestry) and the Department of Public Works Bureau of Street Services Urban Forestry Division (UFD) now both utilize software to manage each department's tree management.
5. Implement public outreach to improve urban forest awareness and engagement.	A broad citywide public outreach campaign is still needed to improve urban forest awareness and engagement.

DRAFT

Appendix I - 2019 City Controller Tree Trimming and Maintenance Audit and 2023 Update

The 2019 City Controller Tree Trimming and Maintenance Audit (2019 Audit) and the subsequent update in 2023 focus on street trees. The 2019 Audit mirrored recommendations from earlier reports stating the need for a tree inventory and management system to support decision-making and planning. The table below outlines the recommendations from the 2019 Audit alongside the update in 2023 and further comments from the current context.

The 2023 update reflected that all of the 2019 Audit's recommendations had either been completed or the Department of Public Works Street Services (StreetsLA) had decided not to implement. It also reflected the need to shift from a reactive maintenance approach to a proactive one, which the original audit in 2019 did not discuss. It notes the extreme gap between pruning cycle best practice (five-year cycle) and the street tree cycle for 2018 and 2022, 18 and 22 years respectively. In that same timeframe the per tree cost of proactive tree trimming increased from $215 to over $400, meaning fewer trees can be pruned with the same budget. However, the 2023 update states that the cost for an emergency response pruning in 2022 is still more expensive than routine pruning at $584 per tree and that the City has spent approximately $2.5 million per year on tree-related settlements for property damage and personal injury claims. To that end, the 2023 update recommends supplementing the current in-house crew model utilized by StreetsLA with contracted tree trimming work.

2019 Audit Recommendations	2023 Audit Update / Current Status
Section I: Conducting a Citywide Inventory of Street Trees	
1. **Develop a plan to implement a comprehensive street tree inventory system** that will support future tree maintenance, planting, removal, and pest and disease mitigation activities.	The 2023 update marked this recommendation as implemented. Stating that the StreetsLA Urban Forestry Division (UFD), integrated StreetsLA & MyLA311 systems, implemented a management system, and created a unified inventory of street trees & park trees. Current Status: The street and park tree inventory is no longer unified, with the Department of Recreation and Parks Forestry Division (RAP Forestry) and UFD utilizing different systems for tree asset and work management.
2. **Assess the feasibility of:** a. **Implementing technology-based strategies** (i.e., hyperspectral imaging and LiDAR) to collect street tree inventory data;	The 2023 update marked this recommendation as implemented. Stating that StreetsLA assessed the feasibility of tech-based inventory strategies and using volunteers, but determined that an urban forest consulting firm would provide the best data.

b. **Partnering with volunteers/other stakeholders** and using mobile technology to develop a street tree inventory program; and c. **Improving coordination with DWP** to share street tree data.	Current Status: StreetsLA recommends inventory updates by City staff. An additional update to 2019 Recommendation 2.c. is that there has been minimal communication with LADWP to discuss improved coordination to share street tree data.
3. **Conduct an updated inventory of street trees** to account for changes that have occurred since the last citywide inventory was performed in 1996.	The 2023 update marked this recommendation as in progress. Stating that over 820,000 tree sites were inventoried when the update was published. Current Status: The street tree inventory was completed in December 2023.
4. **Improve processes** related to the ongoing collection, monitoring, and management of street tree data to ensure the comprehensive inventory system remains a dynamic, up-to-date resource for Public Works to make informed decisions.	The 2023 update marked this recommendation as implemented. Stating that StreetsLA made significant progress in integrating workflow and inventory management functions, through the implementation of TreeKeeper software. Current Status: To align with the Executive Directive 9 (Mayor Bass series), StreetsLA has shifted their asset management, including trees, to the City's chosen Enterprise Asset Management System.
Section II: Using Data to Improve Street Tree Maintenance	
5. **Develop and implement a centralized system** to manage its street tree maintenance operations. At minimum, the system should perform the following functions. a. **Integrate work order and inventory** management functions in order to streamline tree maintenance and inventory data collection. b. **Provide dynamic inventory and maintenance reporting** capabilities, so that managers can use tree data to prioritize maintenance and other urban forestry improvement projects.	The 2023 update marked this a recommendation as implemented. Stating that StreetsLA's implementation of TreeKeeper (a tree inventory system) provides a fully functional, centralized urban forestry management system. Current Status: As StreetsLA shifts to a new asset management system they are ensuring that the new system continues to meet the necessary urban forest management functions.
Section III: Potential Contracting Strategies to Meet Future Needs	
6. **Consider different contracting strategies** if City crews need to be supplemented by outside contractors in the future. a. **Develop a pool of pre-qualified contractors** that can supplement City crews for on-demand services with stipulated pricing for specific types of trimming services. b. **Determine whether a service-specific, multi-tiered pricing structure** would be more beneficial to its overall strategy to maximize proactive trimming services citywide.	The 2023 update marked this a recommendation as one that will not be implemented, stating that StreetsLA had moved to an in-house model with no contractors. Current status: StreetsLA provided a report back to City Council in November 2025 assessing the needed resources to meet a five-year street tree trim cycle. The report recommends a hybrid model, pairing in-house crews with contractors.

Appendix J - Job Classification Analysis

DRAFT

FINAL

Job Classification Analysis

City of Los Angeles

MARCH 2024

Prepared for:

CITY OF LOS ANGELES – OFFICE OF FOREST MANAGEMENT
200 North Spring Street
Los Angeles, California 90012
Contact: Rachel Malarich, City Forest Officer

Prepared by:

DUDEK
225 South Lake Avenue
Suite 225-M210
Pasadena, California 91101
Contact: Kevin Cullinen

Table of Contents

SECTION NO. **PAGE**

Acronyms and Abbreviations iii

Executive Summary iv

1 Introduction 1
Methodology 1

2 Job Classification Analysis 2
2.1 Review of Current Job Classifications 2
2.1.1 Tree Surgeon Career Ladder 2
2.1.2 Environmental Specialist Career Ladder 3
2.2 Staff Interviews 3
2.2.1 Feedback Themes from Staff Interviews 3

3 City Comparison 7
3.1 City of Portland 7
3.2 City of Sacramento 9
3.3 Washington, DC 11
3.4 Themes from City Comparisons 14
3.4.1 Organizational Themes 14
3.4.2 Job Scope/Duty Themes 15

4 Recommended Job Classifications 18
4.1 Senior Urban Forester 18
4.2 Urban Forester 18
4.3 Senior Urban Ecologist 18
4.4 Urban Ecologist 19
4.5 Tree Superintendent 19
4.6 Proposed Career Pipeline 19
4.7 Next Steps 20

5 References 22

TABLES

1 Staff Interviews 4
2 Summary of Staff Interview Themes and Responses 5
3 City of Portland Urban Forestry Budget 7
4 Common Themes in Comparison City Urban Forester–Related Job Classifications 15
5 Common Themes in Comparison City Senior Urban Forester–Related Job Classifications 16

EXHIBIT

1 Example of how recommended classifications might fit in career pipeline for RAP Forestry Division 20

FIGURES

1 City of Portland Urban Forestry Division Organization Chart 8
2 City of Sacramento Public Works Department – Urban Forestry Section Organization Chart 10
3 District of Columbia Urban Forestry Division Organization Chart 12
4 District of Columbia Tree Management Branch Organization Chart 13
5 District of Columbia Tree Services Branch Organization Chart 14

APPENDICES

A New and Updated Draft Urban Forestry Job Classifications
B Existing City of Los Angeles Job Classifications
C City of Los Angeles Recreation and Parks Memo for a New Arborist Technician Classification Descriptions
D Job Classification Descriptions for Comparison Cities

Acronyms and Abbreviations

Acronym/Abbreviation	Definition
City	City of Los Angeles
RAP	Department of Recreation and Parks
StreetsLA	Bureau of Street Services
UFD	Urban Forestry Division

Executive Summary

The City of Los Angeles (City) is in the process of developing its first urban forest management plan, anticipated to be complete by the end of 2024. This project is being led by the Office of Forest Management. During the information gathering process for the urban forest management plan, Office of Forest Management staff heard concerns from both City staff and tree advocates surrounding current staffing of urban forestry and natural resource management. In addition to insufficient staffing levels and budget for urban forest management activities, there were concerns that current and future positions may not be easily filled with staff that have the experience, education, and skills needed for those roles due to the limited pathways to enter City employment for arboriculture and other natural science–based fields. The City has increasingly been setting targets and priorities related to nature-based solutions and green infrastructure, including the development of the biodiversity index and healthy soils report, as well as the wildlife pilot study and proposed wildlife ordinance. As these priorities have been incorporated into City workplans, the need for technical staff that can develop, advise, and monitor these programs has increased. For urban forestry in particular, the City has completed its first tree inventory of street and park trees since the 1990s, an unprecedented opportunity to utilize data to guide decision-making, which is increasingly important as the City prepares for and responds to the variable impacts of climate change.

The City has identified a need for additional and updated job classifications in order to ensure high-quality management of the City's urban forest and other natural resources. A comparative study of three cities with strong urban forestry programs and an analysis of staff interviews from multiple City departments identified a need for a minimum of four new job classifications and one updated classification. The City requires a workforce with diverse skillsets across multiple departments to assist in maintaining the City's urban forest and other natural resources, while providing career growth for City employees. The recommended additions include two Urban Forester classifications, two Urban Ecologist classifications, and an update to the current Street Tree Superintendent classification.

The recommended Urban Forester career ladder would include an Urban Forester and a Senior Urban Forester job classification. An Urban Forester would be responsible for various non-tree trimming field-related tasks such as conducting tree inventory activities, updating the inventory databases, conducting tree risk assessments, reviewing tree removal permits and reports, and monitoring the protection of existing trees during construction projects. Responsibilities of a Senior Urban Forester would include planning and management efforts related to urban forestry such as coordinating with other City departments, government agencies, and non-government partners on urban forest health; assessing how policy amendments and capital projects impact the urban forest; and acting as a subject matter expert for tree-related questions and urban forest management issues throughout the City.

The recommended Urban Ecologist career ladder would include an Urban Ecologist and a Senior Urban Ecologist job classification. An Urban Ecologist would be responsible for various field-related ecology tasks such as conducting field surveys, reviewing permits and plans, monitoring rare and endangered species, and creating site plans for restoration projects. A Senior Urban Ecologist would be responsible for planning and visioning efforts related to the City's natural resources and coordinating with other City departments, government agencies, and non-government partners on policies, plans, and capital projects and their impacts to the City's natural resources. The Senior Urban Ecologist may also serve as a subject matter expert across departments for issues related to ecology and the conservation of natural resources within the City.

The Tree Superintendent would be an updated supervisory classification, modified from the existing Street Tree Superintendent classification, which would update current classification duties to allow use by both the Bureau of

Street Services (StreetsLA) Urban Forestry Division (UFD) and the Department of Recreation and Parks (RAP) Forestry Division. A Tree Superintendent would direct and manage the activities of the Division, such as planting, maintenance, removal, and replanting of trees under the Division's jurisdiction and improvement and maintenance of parks, landscaped areas, traffic median islands, and parkways. This adjustment was identified as a priority, as the current staffing structure and classification used for the Division Manager of the RAP Forestry Division does not ensure that a tree expert would be hired into that critical role, which leads and guides the work of the Division in managing and caring for trees in parks.

The comparison cities analysis revealed that other large jurisdictions dealing with the complexities present in managing natural resources and living infrastructure in an urban environment use a larger variety of job classifications to meet their needs. Each of the three comparison cities analyzed had existing arborist or urban forester classifications that did not require the physical ability to climb or prune a tree but did encompass knowledge of tree trimming duties and covered duties related to tree inventory data collection and analysis, tree permit review, addressing tree ordinance violations, and carrying out the vision of urban forest management plans.

While the City will have to navigate its policies regarding updating or creating new classifications, this report is intended to support such an effort and provide initial feedback and guidance on the types of content involved in the process.

1 Introduction

Methodology

Creating an improved workforce starts with investigating current challenges and gaps in the existing classification structure. This report covers a review of the two existing job classification career ladders (Tree Surgeon and Environmental Specialist) that are most often used by City of Los Angeles (City) departments for urban forestry and other environmental hiring needs. An internal City memo from Department of Recreation and Parks (RAP) Forestry Division for a new Arborist Technician classification was also evaluated. The next phase of this analysis involved conducting staff interviews with 10 different City departments that have a high intersection with urban forestry and the natural environment. Interviews provided firsthand accounts from managers who need to hire staff with specific skills but are limited by current classifications and need to find work arounds, managers unable to find the skilled staff, or departments that experience high turnover due to lack of career progression and economic mobility. Staff responses were analyzed to understand common issues and needs among the various departments and to identify which new or updated job classifications would satisfy the majority of these needs.

To get a sense of how the City job classifications compared to other cities with strong urban forestry programs, job classifications and organizational charts were analyzed from the cities of Portland, Oregon, Sacramento, California, and Washington, DC. Job descriptions for relevant urban forestry and ecological classifications were analyzed, and repeating themes observed from the subsections of the classifications such as range of duties, experience, and education requirements were documented and considered when recommending new and updated job classifications. The last stage of this analysis involved drafting four new and one updated job classifications based on City staff feedback, developing the full job classification descriptions (see Appendix A, New and Updated Draft Urban Forestry Job Classifications), and providing an example of an updated organizational chart for how these new classifications might fit into the existing structure. While many potential new and updated classifications were explored, this project was limited to deeper analysis on only a handful of key job classifications and is not intended to be considered an exhaustive analysis on the City's classification needs regarding natural resource management.

2 Job Classification Analysis

This section includes a review of the existing job classification career ladders that are most often used by City departments for their urban forestry and other environmental needs, a summary of the comments and feedback from the staff interviews, and a comparison of job classifications from three other cities who are leaders in the urban forestry field.

2.1 Review of Current Job Classifications

The management of the urban forest and other natural resources in an urban environment bridges social, economic, and ecological disciplines and therefore requires a team with varied skillsets. Currently, the Tree Surgeon and Environmental Specialist career ladders, and their included job classifications, are most frequently used to fill roles for City departments responsible for managing trees and natural resources. The Tree Surgeon career ladder has a narrowly defined entry point, requiring a candidate to pass a physical tree climbing test, while the Environmental Specialist career ladder is extremely broad. This section reviews these two career ladders and the job classifications included within them.

2.1.1 Tree Surgeon Career Ladder

Currently, the Tree Surgeon career ladder (Appendix B, Existing City of Los Angeles Job Classifications), used by both the Bureau of Street Services (StreetsLA) Urban Forestry Division (UFD) and RAP Forestry Division, provides the bulk of the City's workforce for the management of City-managed trees. The Tree Surgeon classification requires a candidate to pass a tree climbing exam to be eligible for consideration. However, urban forest management also requires activities that do not require tree climbing abilities, such as collecting, analyzing, and managing data; planting trees and providing establishment care for young trees; conducting tree risk inspections; and reviewing tree reports. This leaves UFD, RAP, and other City departments that physically interact with trees unable to hire candidates if that candidate cannot climb a tree, even if they possess other important urban forestry knowledge and skills.

The Tree Surgeon Supervisor and Street Tree Superintendent classifications are the City's only management-level classifications open to urban forestry or arboricultural professionals, carrying the limitations within the Tree Surgeon classification into these subsequent classifications. Currently, qualified applicants who have valuable knowledge and experience through a variety of career paths, professional certifications, and higher education are not able to access Tree Surgeon Supervisor or Street Tree Superintendent positions. The Tree Surgeon Supervisor classification requires a minimum of 3 years' experience as a Tree Surgeon or 4 years of full-time paid experience in a position at the level of a Tree Surgeon performing duties including climbing trees and using power saws, winches, lifts, booms, or similar equipment. Not only does this potentially limit the City from hiring what would be excellent employees, but this is also a concern when it comes to the current Citywide Diversity, Equity, and Inclusion initiatives. See Appendix C for an internal memo from RAP in relation to this career pathway.

Finally, the Street Tree Superintendent classification is the only classification within the Tree Surgeon career ladder that is only applicable to UFD. Currently the RAP Forestry Division Manager is filled by a Principal Grounds Maintenance Supervisor II position, which does not require arboricultural or urban forestry expertise. The pay bands for the job classifications utilized to fill the UFD and RAP Division Managers are also misaligned with comparable

positions within the City. The Principal Grounds Maintenance Supervisor II pay band is lower than that of the Street Tree Superintendent II, and the Street Tree Superintendent II pay band is lower than that of a Street Services General Superintendent, the job classification that is used for the Division Manager positions for other divisions within StreetsLA.

2.1.2 Environmental Specialist Career Ladder

The Environmental Specialist job classification states this position: "plans, reviews, and examines environmental studies, reports, and proposals to assess their environmental and policy impacts on the City" (City of Los Angeles 2022). This wide range of duties and responsibilities effectively covers the work of most environmental professions, including hydrologist, ecologist, biologist, geologist, and forester. While all the above career titles fit within the environmental realm, they are not interchangeable and represent different areas of technical expertise that take time, education, and experience to develop. Currently, City departments filling vacant positions requiring specific skills or knowledge only have the broad Environmental Specialist or Supervisor classifications to meet the department's needs. An urban forester, arborist, or ecologist may not search for an environmental specialist position while looking for a job in their line of work. Due to the broad classifications within the career ladder, hiring managers are less likely to find a preferred qualified candidate for positions related to managing urban natural resources and must hire someone who needs extensive training. With the City hiring process and structure, that trained candidate might leave for a promotional opportunity in a different department, requiring the process to start over with a search for a new candidate and likely repetition of the extensive training for the role.

2.2 Staff Interviews

Key personnel within 10 City departments were interviewed to identify current staff limitations and challenges of workflow experienced due to gaps in job classifications related to urban forestry and natural resource management. Interview questions included how much forestry and ecology expertise is currently being outsourced; the volume of work, in terms of estimated number of full-time equivalent positions, that intersects with these natural resource fields; what abilities, knowledge, or skills are currently missing from their departments (for forestry- and non-forestry-related tasks); and what the current available job classification limitations are.

In addition to questions regarding job classification limitations, questions were also focused on current staff's career pathways and what, if any, staffing issues were partially or fully a result of classifications that had limited promotional opportunities or where a higher job classification's requirements were misaligned with the employee's current job's skillset.

2.2.1 Feedback Themes from Staff Interviews

In February and March 2024, six interviews were conducted with a total of 30 staff representing 10 different City departments that have intersecting work with urban forestry and the environment. The departments and associated number of staff that were interviewed are shown in Table 1. From the six interviews conducted, there were a number of recurring themes that were voiced by staff. Major themes shared during the interviews are presented below (Table 2).

Table 1. Staff Interviews

Department, Division, or Office	Abbr.	# of Staff Interviewed	Function Related to the Urban Forest and Natural Environment
Department of City Planning	DCP	7	Responsible for reviewing and approving development project plans and landscape and site designs, which may impact or include trees and other natural resources
Department of Recreation and Parks, Forestry Division	RAP	1	Responsible for all trees located in City of Los Angeles (City) parks
Board of Public Works, Office of Forest Management	OFM	4	Responsible for overseeing the development, implementation, and tracking of data-driven decision-making for the City's urban forest, which includes publicly and privately managed trees
Bureau of Sanitation and the Environment	LASAN	4	Responsible for the City's biodiversity and healthy soils programs, manages multiple state and federal grants focused on tree planting and establishment care
Los Angeles World Airports	LAWA	2	Responsible for managing the Los Angeles Dunes and other natural areas owned by the City near the Los Angeles International Airport
Los Angeles Zoo Department	Zoo	1	Nurtures wildlife and enriches the human spirit through education and conservation programs
Department of Transportation	DOT	1	Responsible for and have authority during street re-design planning, which can impact existing trees and the future spaces available for trees
Bureau of Street Services (StreetsLA) Urban Forestry Division	UFD	6	Responsible for all trees located in the City's public right-of-way
Department of Water and Power	DWP	2	Funds the City Plants program, which provides free street and private property shade trees to DWP customers; also owns large areas of land, some of which have opportunities for natural resource enhancement
Bureau of Engineering	BOE	2	Responsible for development in the City and plays a key role in the planning of uses for right-of-way space and street widening, which can often involve trees; completes designs for City's capital projects, which can incorporate natural resource elements; responsible for management and updates to City standards, including tree installation and materials standards

Table 2. Summary of Staff Interview Themes and Responses

Theme	Staff Responses
Environmental Specialist classification limitations	Staff from multiple department interviews conveyed that the Environmental Specialist classification ladder is so broad that it can be difficult to get applicants with specific skills and experience in the desired area like urban forestry, biology, and ecology. Staff said that the Environmental Specialist list includes many candidates with water quality testing and compliance expertise but fewer with forestry or biological experience.
Career ladder limitations and losing staff to other departments	Staff expressed that the career ladder caps out earlier for the Department of Recreation and Parks (RAP) classifications than other departments such as the Urban Forestry Division (UFD) and does not offer enough upward progression. The Department of Water and Power has only 5 steps to the top position, whereas most other departments have 12 steps.
Diversity, Equity, and Inclusion (DEI) and entry barrier concerns	Departments responsible for managing trees said that the current Tree Surgeon positions exclude people with physical disabilities from entering this career, even if they have arboriculture knowledge, due to the physical requirements of the current entry classifications, which includes tree climbing and trimming.
Staff and funding limitations	Some staff expressed that they have sufficient job classifications to cover the full range of work tasked to their department but do not have enough staff (full-time equivalent positions) to perform the current workload. These staff also said their current staff's busy workload does not leave much time for other biodiversity work, which is secondary to their main scope of work. Some staff expressed that open job positions that have been vacant for an extended period of time are at risk of being removed by the City during the annual budget process, which can lead to missed opportunities as well as delays in work/implementation within the workflow challenges
Staff resistance to data entry	Staff responsible for management of trees have heard feedback from their Tree Surgeons staff that there is a steep learning curve to becoming proficient at data collection and entry. In addition, Tree Surgeons and Tree Surgeon Supervisors report it is challenging to keep up with the daily tree pruning and maintenance goals when they also are required to collect tree inventory data at the same time. Staff managing trees said there is currently only one person performing data quality control and expressed that having a job classification that can focus on data collection and analysis who is not responsible for tree pruning would greatly help their division.
Upper level positions are not equal between UFD and RAP	Staff pointed out that there is no equivalent of the Street Tree Superintendent position for RAP, and the Division Manager for RAP has a lower salary range than the UFD Division Manager. Staff pointed out that the Street Tree Superintendent II pay band is below that of a Street Services General Superintendent, which is the classification used for all other Bureau of Street Services (StreetsLA) Division Managers. Multiple departments expressed the need for a general Tree Superintendent position that could be utilized by both UFD and RAP.
Need for field-level and technical lead–level Urban Forester	Multiple departments expressed the need for a field-level Urban Forester position that would be able to help with tree permit reviews, tree hazard assessment, and tree inventory data collection and analysis.

Table 2. Summary of Staff Interview Themes and Responses

Theme	Staff Responses
	Multiple departments expressed the need for a technical lead–level Urban Forester position that could assist with long-term planning for the urban forest, review tree protection plans, and analyze consistency of the City of Los Angeles (City) tree protection ordinance with other City planning documents.
Need for field-level and technical lead–level Urban Ecologist	Multiple departments expressed the need for a field-level Ecologist that could review biological reports and plans, conduct biological surveys, and coordinate with other agencies like the California Department of Forestry and Fire Protection on the City's vegetation management operations. Multiple departments expressed the need for a technical lead–level Urban Ecologist position that would be able to work across departments and identify common resource needs and conduct big-picture planning for the City's biological and natural resources.

3 City Comparison

To better understand the full range of possible job classifications related to urban forestry and natural resources that might benefit the City, three cities with strong urban forestry programs were selected for a more in-depth analysis on the job classifications and organizational structure used in these cities. The three cities analyzed included the City of Portland, Oregon, the City of Sacramento, California, and the City of Washington, DC. The full job descriptions for the relevant urban forestry–related classifications discussed below can be found in Appendix D, Job Classification Descriptions for Comparison Cities.

3.1 City of Portland

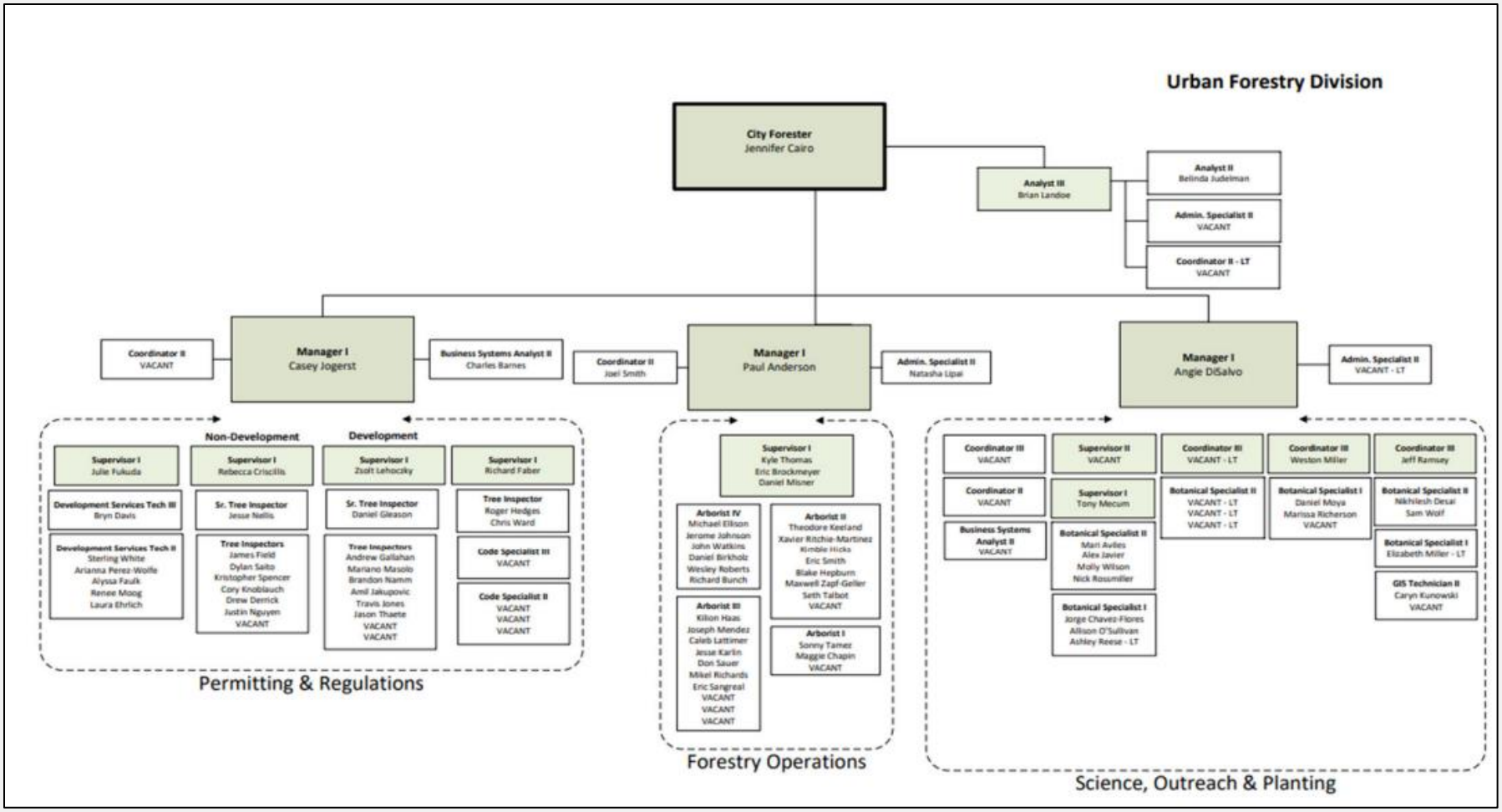
The City of Portland's urban forest is managed under the Department of Parks and Recreation and consists of 218,000 street trees, 1.2 million park trees, with 2.9 million private property trees (City of Portland 2024). The City of Portland is currently updating their 2004 Urban Forest Management Plan, with initial groundwork underway. According to the U.S. Census Bureau, approximately 641,000 people live within the city limits of Portland (U.S. Census Bureau 2024a). Portland's UFD has a total budget of $18.13 million, which is divided according to Table 3 below:

Table 3. City of Portland Urban Forestry Budget

Department	Funding
Park and Street Tree Care Operations	$6.6 million
Parks Permitting/Regulation	$5.84 million
Parks Tree Planting	$3.86 million
Science and Policy	$670,100
Stewardship and Education	$606,398
Admin and Planning	$560,000
Total Budget	**$18.13 million**

The City of Portland, Oregon, was selected for comparison due to its unique and innovative UFD and similar job classifications and departmental organization. Portland's organization of tree-facing jobs is notable in that most cities do not have such large UFDs with specialized subdivisions. Many of the urban forestry–related jobs in other cities are often spread throughout different departments, as noted in Portland's 2023 Urban Forestry Budget Update presentation (Portland Parks & Recreation 2023). The organization of Portland's UFD can be found in **Figure 1** below.

Figure 1. City of Portland Urban Forestry Division Organization Chart



Source: Portland Parks & Recreation 2023.

Portland's UFD is organized into three subdivisions: Permitting and Regulations; Forestry Operations; and Science, Outreach, and Planting, all of which are under the general direction of the City Forester. In addition, the City Forester also directs a separate Urban Forestry Analysis Team. The City Forester oversees 104 individuals when all subdivisions and teams are fully staffed. This is an exceptional number of staff dedicated to planning, analyzing, maintaining, and growing the urban forest.

The Permitting and Regulations Subdivision consists of mostly Tree Inspector and Code Specialist classifications who are responsible for applying and enforcing City Tree Code regulations; performing on-site tree condition and risk assessments; collecting tree inventory data; and reviewing, processing, and issuing development and non-development tree permits. The Tree Inspector and Senior Tree Inspector classifications align closely with many of the current City of Los Angeles urban forestry–related staffing needs.

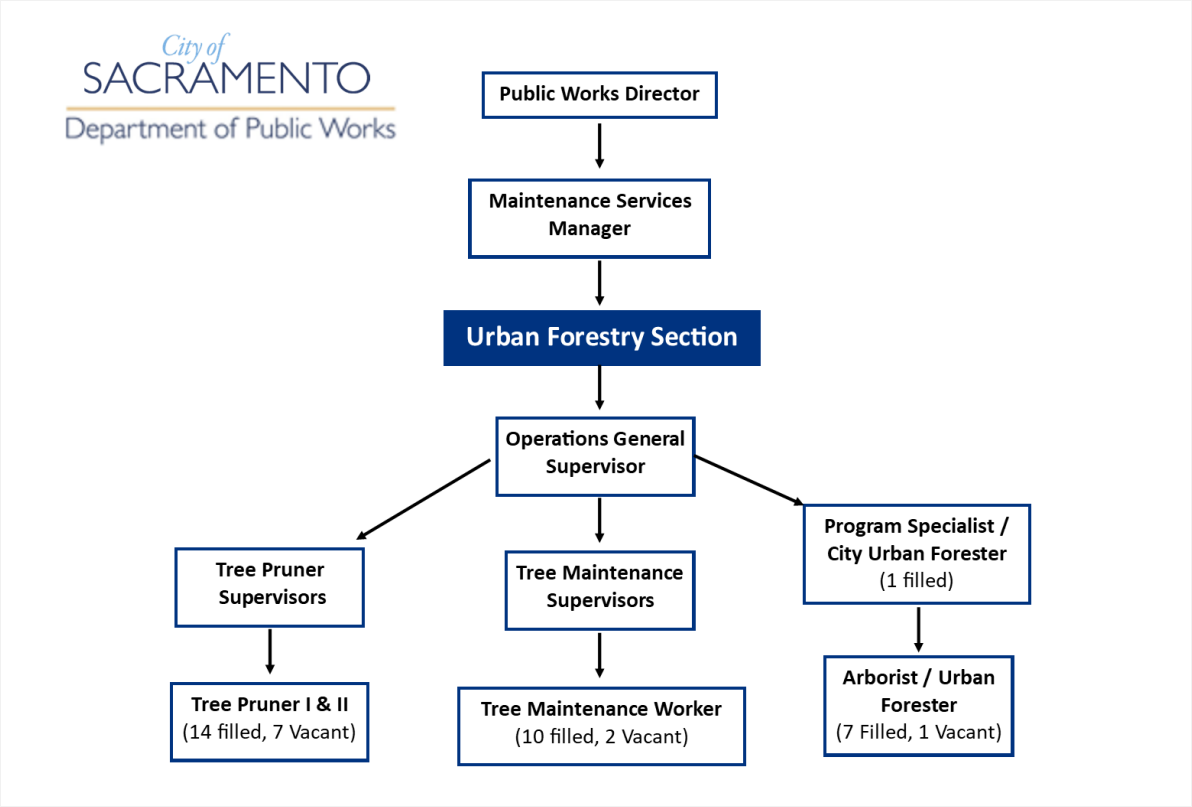
The Forestry operations Subdivision consists of various levels of Arborist classifications that are analogous to the City of Los Angeles' Tree Surgeon classifications and are responsible for the day-to-day tree maintenance and care operations for the City of Portland.

The Science, Planting, and Outreach Subdivision is a unique subdivision not often seen within cities' UFDs. It contains the Botanical Specialist classification, which is one of the only classifications identified in this comparative analysis that aligns with the City of Los Angeles' needs for a classification that can support ecological fieldwork and planning. In the job description for the Botanical Specialist II classification, there are several specializations, one of which is the Natural Resource Ecologist specialty. This classification plans, organizes, manages, and monitors a variety of professional botanic, natural areas, urban forestry, and horticultural projects and activities, with added emphasis put on planning and implementing natural resource restoration and enhancement projects and developing maintenance strategies and resource management plans.

3.2 City of Sacramento

The City of Sacramento's urban forest consists of an estimated 1 million total trees, with 100,000 of those trees publicly managed (City of Sacramento 2024). The urban forestry section of the Public Works Department has an annual budget of $6 million (Hocker, pers. comm., 2024). The City Parks Department reported spending between $800,000 and $900,000 annually for tree work (Aylesworth, pers. comm. 2024). According to the U.S. Census Bureau, approximately 528,000 people live within the city limits of Sacramento (U.S. Census Bureau 2024b). Sacramento was selected for comparison due to its relatively similar climate, urbanized environment, and requirement to comply with California Environmental Quality Act regulations. The various urban forestry–related roles are located within the urban forestry section of the Maintenance Services Division, which is located in the City of Sacramento's Public Works Department. More information regarding the reporting structure of these positions can be found in **Figure 2** below.

Figure 2. City of Sacramento Public Works Department – Urban Forestry Section Organization Chart



The Public Works Department falls under the larger Municipal Services Department. The Maintenance Services Division is responsible for the street infrastructure system, including the maintenance of pavement in rights-of-way, sidewalks, curbs, and gutters, and maintenance of publicly managed trees within the City of Sacramento's urban forest. Urban forestry–related job classifications were originally identified from a jobs salary schedule document, and later clarified by City of Sacramento staff Kevin Hocker, a Program Specialist with the working title of City Urban Forester (Hocker, pers. comm., 2024). The urban forestry section has an Arborist/Urban Forester classification staffed by seven people and supervised by the Program Specialist position. The Arborist/Urban Forester classification description is currently being updated, along with many of the other urban forestry section classifications. While the current Arborist/Urban Forester classification description covers inspecting trees, reviewing plans, and conducting research on tree pests and disease control, the description is lacking any mention of collecting or analyzing tree inventory data, reviewing and approving tree permits, or implementing the City of Sacramento's tree protection ordinance. Mr. Hocker explained that the Arborist/Urban Forester positions do carry out these other duties in practice, even though it is not listed on their current job classification description (Hocker, pers. comm., 2024). The Program Specialist classification in the City Urban Forester role oversees the work of the Arborist classification and addresses policy-related issues.

The other City of Sacramento tree-related classifications like Tree Pruner, Tree Maintenance Worker, and Tree Maintenance Supervisor all perform tasks exclusively related to the physical care and maintenance of Sacramento's trees and are similar to the City of Los Angeles's Tree Surgeon career ladder. Tree Maintenance Workers are

responsible for tree planting, tree establishment, and pest control on trees. The Tree Pruners solely focus on pruning and removing dead trees. Mr. Hocker explained that the City of Sacramento has difficulty recruiting and retaining staff with the current pay scale for these positions, and they use contractors to supplement the workforce by primarily addressing their proactive pruning program, which leaves their own staff to handle more technical pruning work (Hocker, pers. comm., 2024).

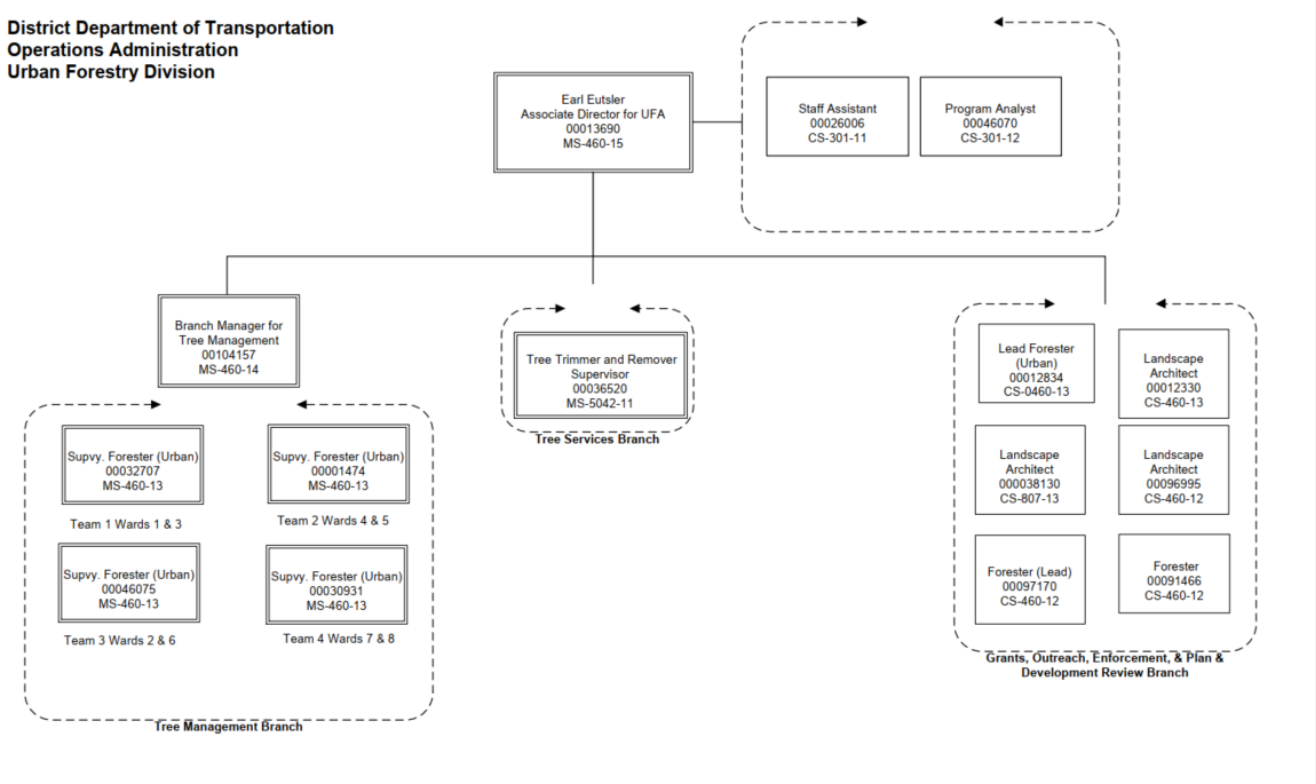
The Park Maintenance Division falls under the Youth, Parks, and Community Enrichment Department and has many similar job classifications to the City of Los Angeles' Recreation and Parks Department. The Youth, Parks, and Community Enrichment Department contains a classification for Parks Maintenance Superintendent, which supervises the Arborist/Urban Forester position and resembles a parks equivalent of the City of Los Angeles's Street Tree Superintendent classification.

3.3 Washington, DC

The City of Washington, DC, manages approximately 200,000 trees in public spaces (Washington, DC 2024). According to the U.S. Census Bureau, approximately 671,000 people live within the city limits of the District of Columbia (U.S. Census Bureau 2024c). Washington, DC, was selected for comparison due to its similar population density and urbanized environment. Washington, DC, also has a dedicated UFD and career opportunities within the Department of Transportation. The mission of the UFD is to manage and increase the District of Columbia's public trees and to maintain them in a healthy condition to provide residents and visitors with equitable access to healthy and high-quality forests and their benefits.

The UFD is run by the Associate Director for the Urban Forestry Administration, who oversees the functioning of UFD's three branches and the estimated 46 individual positions operating within the department. The overall structure of the UFD can be found in Figure 3 below.

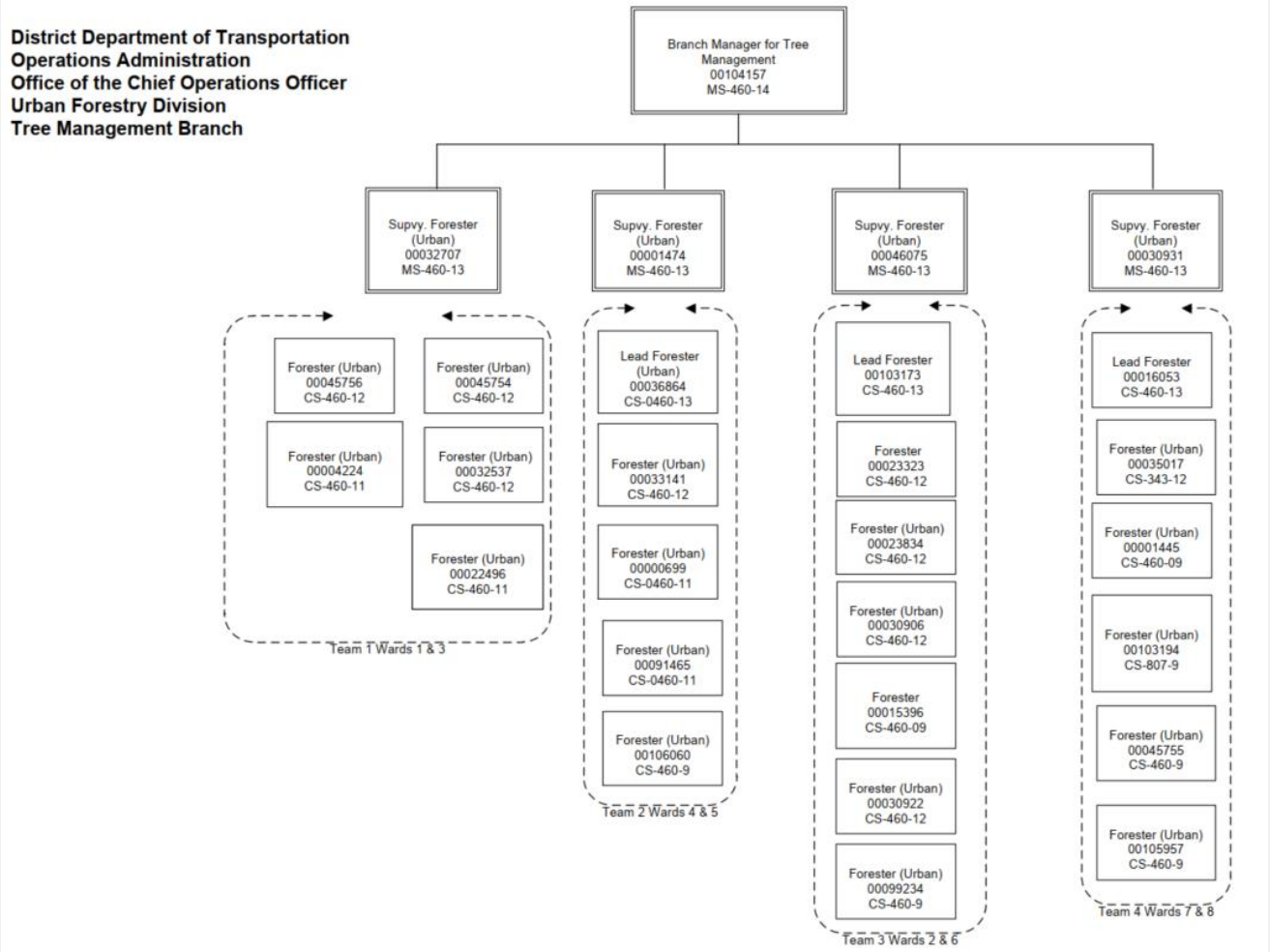
Figure 3. District of Columbia Urban Forestry Division Organization Chart



Source: Eustler 2024.

The UFD is divided into the following three branches: Tree Management Branch; Tree Services Branch; and Grants, Outreach, Enforcement, and Plan and Development Review Branch. All three branches are led by the Associate Director for the Urban Forestry Administration. The Branch Manager for Tree Management oversees four Supervisory Foresters (Urban) and their respective teams. The Branch Manager for Tree Management position is meant to "[p]lan, direct, coordinate, and supervise Forestry activities to increase the quantity and quality of the District's urban forest canopy" (Branch Manager for Tree Management Job Classification provided in Eustler 2024) Including the four Supervisory Forester roles, the Branch Manager for Tree Management oversees 27 individual positions within the UFD and serves in a similar capacity to the City of Los Angeles' Street Tree Superintendent classification. The reporting structure for this branch can be seen in Figure 4 below.

Figure 4. District of Columbia Tree Management Branch Organization Chart



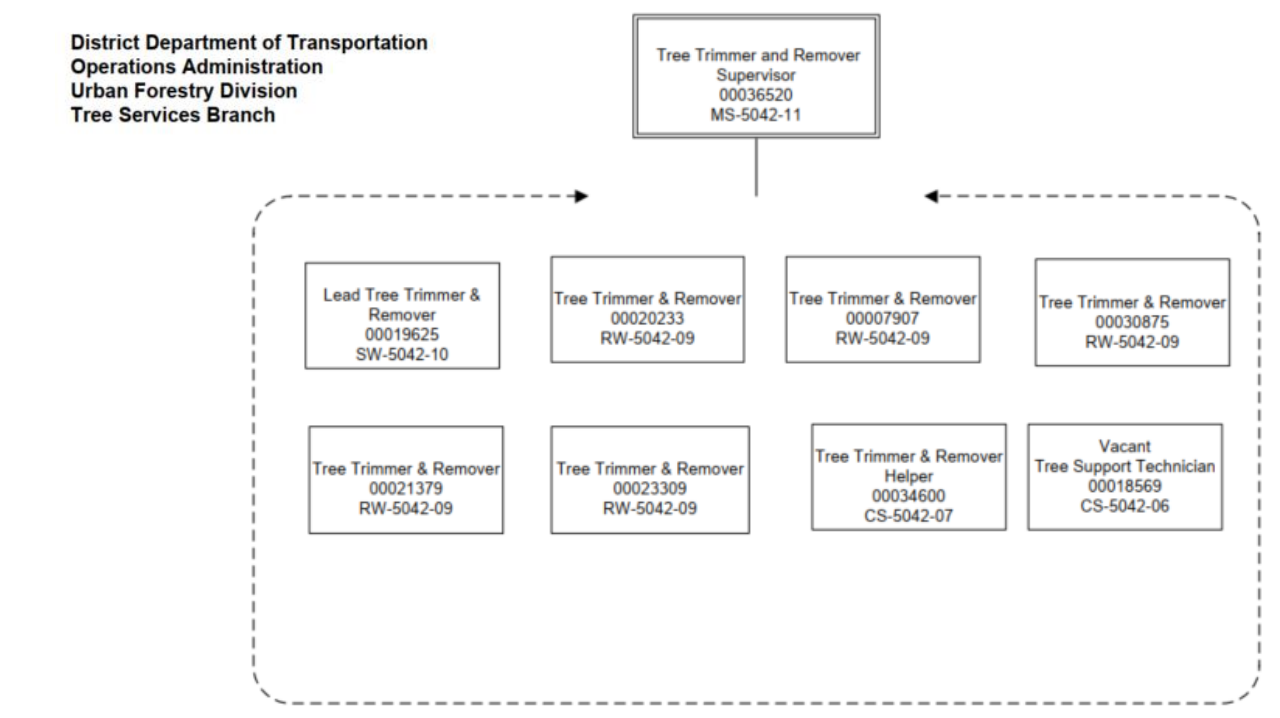
Source: Eustler 2024.

The relevant urban forestry classifications from the three branches include the entry level Forester (Urban) and Lead Forester (Urban) classifications found in both the Tree Management Branch and the Grants, Outreach, Enforcement, and Plan and Development Review Branch and the Supervisory Forester (Urban) classification found only in the Tree Management Branch. The entry level Forester (Urban) classification description is written very broadly so that it can serve the needs of the two branches that do not perform tree maintenance, with duties that include conducting urban forest planning investigations and inventories, reviewing permit applications, responding to service requests, overseeing work by contractors, managing/reading data from excel and ArcGIS platforms, and advising on tree pests and diseases, among other duties, This classification would address many of the field-level urban forestry needs raised by City of Los Angeles staff. The Lead Forester classification is one step up from the Forester classification and covers a mix of field assessment and plan review, while providing leadership to entry level Forester staff. The Supervisory Forester classification provides greater leadership over multiple Forester staff and management of the District of Columbia's Urban Forestry Program. Both the Lead Forester and Supervisory

Forester classifications have duties that overlap and would address the City of Los Angeles' needs for a technical lead Urban Forester classification.

The Tree Services Branch of the District of Columbia's UFD is home to nine individual roles, including the Tree Trimmer and Remover Supervisor, and has a similar structure and function as the City of Los Angeles' Tree Surgeon career ladder. The Tree Trimmer and Remover Supervisor manages this branch and the following eight roles: one Lead Tree Trimmer and Remover, one Tree Support Technician, and six Tree Trimmer and Remover positions. The organization of jobs in this branch can be seen in **Figure 5** below.

Figure 5. District of Columbia Tree Services Branch Organization Chart



Source: Eustler 2024.

3.4 Themes from City Comparisons

3.4.1 Organizational Themes

Both Portland and Washington, DC, have robust urban forest management organizations and support systems. Both cities are in historically forested regions, meaning the demand for tree management and maintenance has always been present. While Sacramento and Los Angeles are not historically forested regions, both cities currently have large urban forests that require planning and management.

Both Portland and Washington, DC, have tree pruning crews and several urban foresters, while Sacramento primarily relies on its tree trimmers and maintenance workers and only has one urban forester on staff. Like Sacramento, Los Angeles' UFD and RAP are more heavily made up of staff focused on direct tree maintenance, meaning management-level staff are responsible for both supervising crews and planning for and managing the urban forest. With more urban forester positions in a city's organizational structure, the city has access to a greater number of knowledgeable professionals with a higher capacity to provide policy recommendations and other urban forestry planning and management activities.

3.4.2 Job Scope/Duty Themes

Tables 4 and 5 below contain common or similar duties, education requirements, and certifications identified across two or more of the comparison cities classifications for a field-level Urban Forester classification and a technical lead Senior Urban Forester classification.

Table 4. Common Themes in Comparison City Urban Forester-Related Job Classifications

Urban Forester			
City	**Duties**	**Education**	**Certifications**
Portland	▪ Interprets and applies the Tree Code for compliance and permit issuance ▪ Performs tree inspections for hazards ▪ Investigates Tree Code violations ▪ Manages inventory, Tree Risk Assessment Qualification, and permit data to report trends ▪ Engages the community through educational seminars and in-person assistance with occasional volunteer events	▪ None listed	▪ Driver's license ▪ International Society of Arboriculture (ISA) Certified Arborist ▪ Electrical Hazards Awareness Program ▪ Pesticide applicator
District of Columbia	▪ Conducts tree inventory and investigations to report general health characteristics of assigned areas ▪ Reviews permit applications, schedules site visits, and directs urban forest management activities ▪ Observes and conducts site inspections for contractor work and in-house crews ▪ Engages community through advisory services within assigned area ▪ Coordinates between internal departments regarding tree management	▪ Bachelor's degree in forestry, urban forestry, or related natural resource management ▪ Specialized experience: 1 year of experience that is directly related to urban forester position	▪ Driver's license ▪ ISA Certified Arborist ▪ ArcGIS experience

Table 4. Common Themes in Comparison City Urban Forester–Related Job Classifications

Urban Forester			
City	**Duties**	**Education**	**Certifications**
▪ Sacramento	▪ Conducts street tree inspections and recommends maintenance ▪ Focuses on tree disease and pest management ▪ Provides cost estimation for tree maintenance and collects/manages data for costs of materials and equipment ▪ Conducts site inspection of contractors and in-house crews ▪ Conducts permit review ▪ Analyzes stocking rate and canopy cover to give recommendations on where and how many trees to plant based on needs of the urban forest and communities	▪ Bachelor's degree in arboriculture, horticulture, entomology, plant pathology, or related field ▪ Experience: 2 years of work involving tree insects/disease control and tree planting	▪ Driver's license

Urban Forester Summary: Common duties of Urban Forester positions include conducting tree inventories, managing inventory data, conducting tree risk assessments, conducting pest/disease inspections, providing permit reviews, and doing light community engagement. Key takeaways of this city comparison are the focus Urban Forester positions have on understanding the current state of the urban forest (data collection) and providing recommendations on pathways towards a more stable and beneficial urban forest.

Table 5. Common Themes in Comparison City Senior Urban Forester–Related Job Classifications

Senior Urban Forester			
City	**Duties**	**Education**	**Certifications**
Portland	▪ Provides direction and management of subordinates and contractors ▪ Determines resource needs for projects, external education to establish modern or updated best management practices ▪ Represent urban forestry program to the public, interested parties, elected officials, and others through presentations of current status of the urban forest	▪ Bachelor's degree in Natural Resources, Forestry, Urban Forestry ▪ Experience: 8 years of progressively responsible experience in managing natural resources, with 4 years in a supervisory role	▪ International Society of Arboriculture (ISA) Certified Arborist ▪ ISA Tree Risk Assessment Qualification ▪ Driver's License ▪ Preferred Qualifications: ▪ Master's degree in Natural Resources or Forestry ▪ ISA Municipal Arborist

Table 5. Common Themes in Comparison City Senior Urban Forester-Related Job Classifications

Senior Urban Forester			
City	**Duties**	**Education**	**Certifications**
District of Columbia	▪ Provides guidance for the urban forestry program from planting to removals ▪ Formulates, implements, and monitors program development ▪ Supports other urban forestry division leadership with resources ▪ Identifies methods for securing various types of resources through federal and state programs	▪ Minimum of 10 years' experience within Urban Forestry Division	▪ ISA Arborist Certification ▪ Experience with ArcGIS ▪ Driver's license
Sacramento	Not available		

Senior Urban Forester Summary: Managing subordinates by providing guidance, planning, coordinating, and supervising along with providing policy recommendations, project cost estimates, and general guidance for the urban forestry program are the common tasks that Senior Urban Forester positions perform. These positions require years of experience within the industry, which provide urban forestry programs with best practices in urban forest management and community engagement.

Urban Ecologist Summary: In the three cities analyzed for this comparison, as well as other major metropolitan hubs that were researched, there were no classifications identified that perfectly matched either a field-level or technical lead–level Urban Ecologist. The closest position identified was the City of Portland's Botanical Specialist II classification with the Natural Resources Ecologist specialization, which includes some, but not all, relevant duties and qualifications that matched the City of Los Angeles' identified needs around ecology and natural resource management. Essential duties from the Natural Resource Ecologist specialization include planning, organizing, managing, and monitoring resource protection, restoration, and mitigation enhancement projects and programs (with a focus on riparian areas); monitoring and evaluating project success by identifying the need for additional resources; and designing and reviewing code and plans for effects on the natural environment and feasibility of actual implementation. The trend for ecologists is that they are primarily hired through federal- and state-level organizations (U.S. Fish and Wildlife Service, State Department of Natural Resources, etc.). A possible explanation as to why there is a trend of missing ecologists from City job classifications is potentially due to the nature of most ecological work taking place in undeveloped and wildland areas away from cities, where the majority of wildlife and other natural resources are most abundant.

4 Recommended Job Classifications

From the analysis of the comments and feedback received during the staff interviews, four new job classifications and one updated job classification were identified to meet the needs of City departments that manage trees and other natural resources. These include two Urban Forester classifications, two Urban Ecologist classifications, and an update to the current Street Tree Superintendent classification.

4.1 Senior Urban Forester

The primary focus of the Senior Urban Forester job classification is overseeing the planning and development of different components of the urban forest, including developing, overseeing, and implementing the City's tree policies, plans, and programs. Duties include, but are not limited to, conducting data analysis; reviewing urban forestry policies and programs to assess success and provide recommendations for updates based on data, research, and industry standards; coordinating collaboration between various City departments, including providing technical feedback on policies in development that may impact the urban forest; approving tree removal permits; coordinating and/or communicating with the public; and representing their division in and developing reports for tree-related hearings. Duties may also include directing the work of Urban Foresters, including overseeing data gathering, tree report development, and review and enforcement of City policy, including violations of the City's ordinances. The Senior Urban Forester position requires a background in forestry or arboriculture and should have experience working for a municipality.

4.2 Urban Forester

The Urban Forester classification is responsible for the application and implementation of urban forestry methods and practices directed toward the establishment, maintenance, restoration, and preservation of the City's urban forest. An Urban Forester's duties would include, but are not limited to, collecting or updating tree inventory data, documenting details of inspections and other work status updates in the tree inventory database, evaluating tree health and conducting tree risk inspections, reviewing requests for tree removal or planting permits, reviewing tree reports, inspecting construction sites to determine compliance with tree protections, and conducting simple data analysis. The Urban Forester position requires a background in forestry or arboriculture and learning about how the built environment and municipal governments interact with the natural environment/urban forest.

4.3 Senior Urban Ecologist

The Senior Urban Ecologist classification would primarily be responsible for planning and visioning efforts related to the management and protection of the City's natural resources. This classification would coordinate with and advise other City departments, government agencies, and non-government partners on policy, program, and project development for natural areas or on such policies that could impact natural resources, including identifying and establishing protocols and principles for site restoration projects. They would also serve as a technical expert on resource management issues and support departments in developing and adopting strategies in alignment with the City's identified biodiversity goals. Duties may also include directing the work of Urban Ecologists, identifying gaps in staff training, and developing trainings to address these gaps as needed. The Senior Urban Ecologist position should be knowledgeable on local and regional ecological/biological concerns and have strong

relationships and coordination with government agencies, non-profit organizations, and colleges and universities in the ecological research field.

4.4 Urban Ecologist

The Urban Ecologist is responsible for ensuring current best practices are utilized for conservation areas, parks, and other naturalized areas within the City. The Urban Ecologist will have two focus areas, field work and community/internal staff engagement. The field work will cover creating and implementing restoration plans, conducting site impact assessments, and conducting inventories/inspections of flora and fauna to include utilizing mapping/tracking tools, and will be able to assist with compliance on California Environmental Quality Act /National Environmental Policy Act requirements. The engagement side covers training and field supervision for contractors, answering questions about City requirements around wildlife and plants, participating in training, and overseeing volunteers working in natural areas. The Urban Ecologist should have a working knowledge of native species and ecosystems in the City and the region and will serve as a leader across a number of conservation topics and activities.

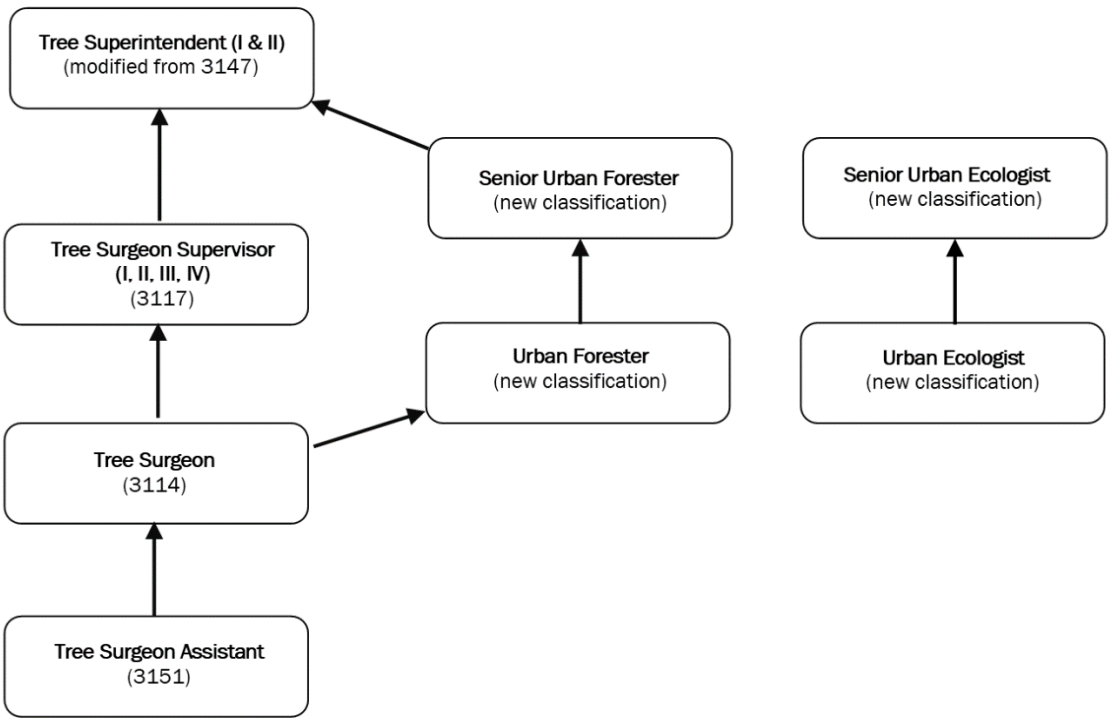
4.5 Tree Superintendent

The Tree Superintendent directs and manages all activities of the RAP Forestry Division or the StreetsLA UFD, including the maintenance, removal, and planting of City-managed trees and the improvement and maintenance of City parks, landscaped areas, and traffic median islands.

4.6 Proposed Career Pipeline

The four new job classifications and one updated job classification are shown in **Exhibit 1,** which visualizes a potential career ladder within the RAP Forestry Division. The Urban Forester and Urban Ecologist career ladders would run parallel to the Tree Surgeon career ladder. The Tree Surgeon classification could promote to either the Tree Surgeon Supervisor or the Urban Forester classifications. Both the Tree Surgeon Supervisor and the Senior Urban Forester could promote to the updated Tree Superintendent classification. The Urban Ecologist and Senior Urban Ecologist classifications would be separate from the Tree Surgeon career ladder. The four proposed Urban Forester and Urban Ecologist classifications are also designed to be available to other departments outside of UFD and RAP.

Exhibit 1. Example of how recommended classifications might fit in career pipeline for RAP Forestry Division



4.7 Next Steps

This report offers an analysis of the City's current job classifications relating to the successful management of the City's urban forest and other natural resources. It should be noted that the recommended new and updated job classifications in this report are still in draft stage. While the drafted job descriptions do take into account both a broad spectrum of current staff needs around the management of natural resources, as well as a comparative study with three other cities with strong urban forestry programs, City staff will need to continue refining these job classification descriptions as they get additional input from the Personnel Department and other key City staff.

Additionally, there were several items that were beyond the scope of this report that are recommended for further analysis and consideration. The first of these is that there was no analysis of pay bands conducted for these recommended classifications. It is recommended that a separate analysis be conducted to assess salaries of comparable classifications from Southern California municipalities and counties. The second item not addressed in this report is a full analysis of where these new classifications would fit within the organizational structure of the various City departments. Additionally, no recommendations are made as to which classifications would supervise the Senior Urban Forester and Senior Urban Ecologist classifications. While this report offers an example of how those classifications might fit in the RAP Forestry Division, further analysis is required for how these proposed classifications would fit within the other City departments that physically interact with trees or other natural resources. The last item not addressed in this analysis is job classification needs identified by City staff during the department interviews, outside of the four new and one updated draft job classifications recommended in this

report. City staff expressed the need for the existing Landscape Architect classification be made available to the Los Angeles Department of Water and Power and that a new Grant Administrator classification be considered for the Department of City Planning. It is recommended that the City consider conducting future analyses to determine how these other classifications might address existing workflow issues and staff needs.

5 References

Aylesworth, S. 2024. City of Sacramento Parks Department tree-related budget. Email from S. Aylesworth (Manager, Parks Maintenance Division) to K. Cullinen (Dudek). March 18, 2024.

City of Los Angeles. 2022. "Class Specification, Environmental Specialist, 7310." Access February 15, 2024. https://personnel.lacity.gov/doc.cfm?get=ClassSpec7310.

City of Portland. 2024. "About Urban Forestry." Accessed March 15, 2024. https://www.portland.gov/trees/about-urban-forestry.City of Sacramento. 2024. "City Maintained Trees" [online mapping application]. Accessed March 23, 2024. https://data.cityofsacramento.org/datasets/b9b716e09b5048179ab648bb4518452b/explore.

Eutsler, E. 2024. Washington D.C. Urban Forestry Job Classifications. Email and documents from E. Eutsler (District of Columbia Associate Director of Urban Forestry Division) to K. Cullinen (Dudek). March 20, 2024.

Hocker, K. 2024. City of Sacramento Urban Forestry Job Classification information. Email from K. Hocker (City Urban Forester, City of Sacramento) to K. Cullinen (Dudek). March 22, 2024.

Portland Parks & Recreation. 2023. "Urban Forestry Budget Update." November 2023. Accessed February 21, 2024. https://www.portland.gov/trees/ufc/documents/ufc-budget-update-2023/download.

U.S. Census Bureau. 2024a. "QuickFacts: Portland City, Oregon." Accessed February 15, 2024. https://www.census.gov/quickfacts/fact/table/portlandcityoregon/PST045223.

U.S. Census Bureau. 2024b. "QuickFacts: Sacramento City, California." Accessed February 15, 2024. https://www.census.gov/quickfacts/fact/table/sacramentocitycalifornia/PST045223.

U.S. Census Bureau. 2024c. "QuickFacts: District of Columbia." Accessed February 15, 2024. https://www.census.gov/quickfacts/fact/table/DC/PST045223.

Washington, DC. 2024. "DC State Forest Action Plan, Assessment of Urban Forest Resources and Strategy." Accessed March 22, 2024. https://forestactionplan.dc.gov/.

[This page left intentionally blank]

DRAFT

Appendix K - Tree Canopy Equity Priority Index

The Tree Canopy Equity Priority Index prioritizes census tracts' tree canopy equity need based analyzing data in three steps that assess:

- **Physical need:** existing tree canopy cover, impervious surfaces, and shade.
- **Environmental exposure:** projected extreme heat days, extreme heat-related emergency room visits, and air pollution exposure.
- **Socio-demographic conditions:** history of redlining, education levels, rates of poverty, populations of color, non-English speaking households, and homeownership, and lack of internet access.

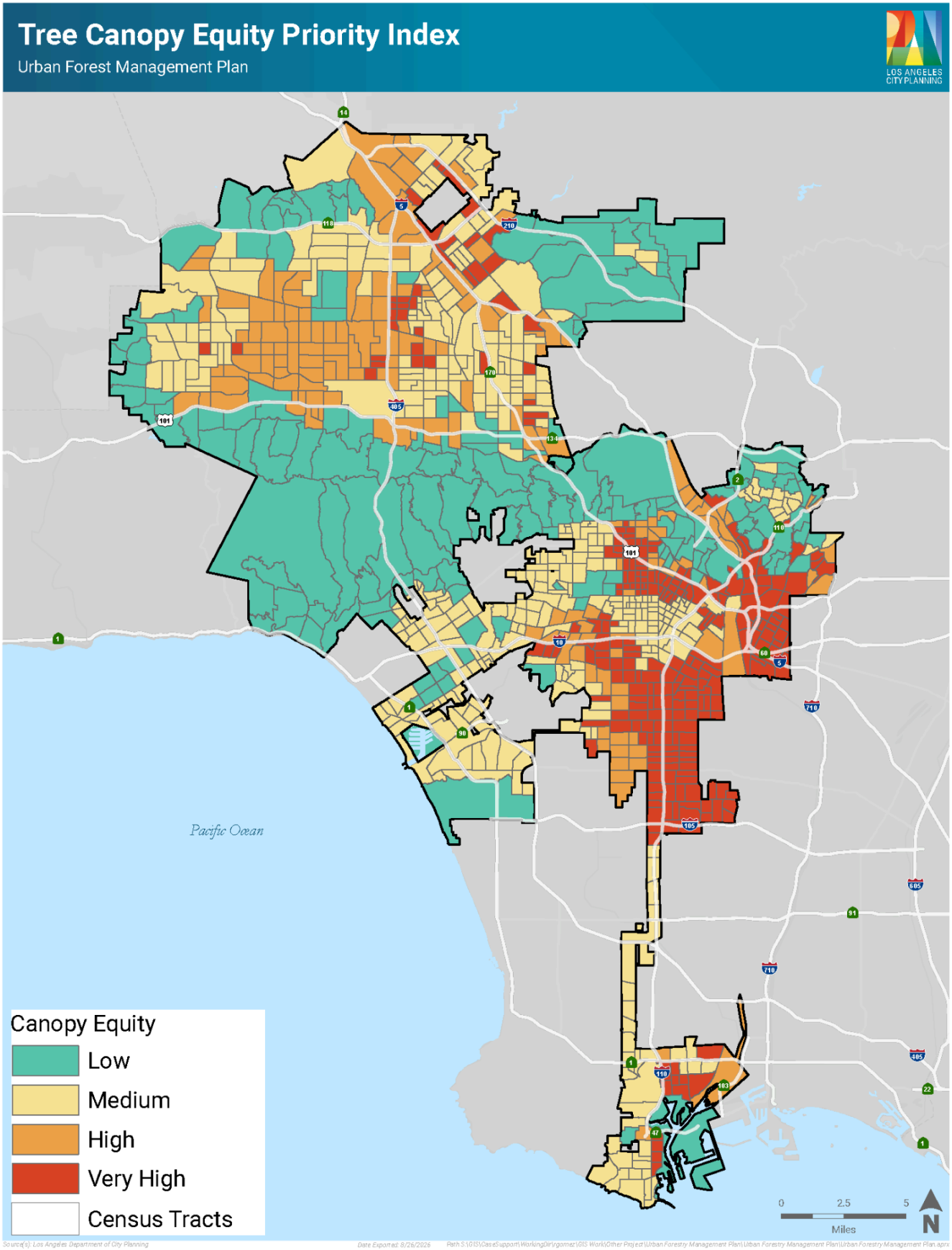
Census tracts that did not meet Step 1 thresholds received a low prioritization level. Census tracts that met Step 1 but not Step 2 thresholds received a medium prioritization level. Census tracts that met Step 1 and 2 but not Step 3 thresholds received a high prioritization level. And finally, census tracts that met thresholds for all three steps received a very high prioritization level. The table below details the threshold requirements for each step.

Step	Data	Metric	Threshold	Source	Scale
Step 1					
Physical Need 2 / 3 Required	Tree Canopy Cover	% of area	Less than 25%	Land Cover Data 2020 (LA County)	Census tract
	Impervious	% of area	More than 50%	Land Cover Data 2020 (LA County)	Census tract
	Shade at 3pm	% of area	Lower 50th percentile	UCLA, American Forests Tree Equity Score	Census block converted to census tract with weighted mean

DRAFT

Step	Data	Metric	Threshold	Source	Scale
Step 2					
Environmental Exposure 1 Heat + 1 Air Pollutant Required	Heat - Days projected over 90F (2035-64)	Number of days per year	Upper 50th percentile	Healthy Places Index	Census tract
	Heat - Excess Daily ER Visits on Extreme Heat Days	ER visits	Upper 50th percentile	UCLA Heat Map	Zip code converted to census tract with weighted mean
	Air Pollution - PM 2.5	µg/m³	Upper 50th percentile	CalEnviroScreen 4.0	Census tract
	Air Pollution - Diesel	Tons/ year	Upper 50th percentile	CalEnviroScreen 4.0	Census tract
Step 3					
Socio-Demographic Conditions 4 / 8 Required	Poverty	% of population	Upper 50th percentile	U.S. Census Bureaus' American Community Survey (ACS), 2019	Census tract
	Adults with education <= high school	% of population	Upper 50th percentile	U.S. Census Bureaus' American Community Survey (ACS), 2019	Census tract
	Non-white and/or Hispanic	% of population	Upper 50th percentile	U.S. Census Bureaus' American Community Survey (ACS), 2019	Census tract
	Non-English language spoken at home	% of population	Upper 50th percentile	U.S. Census Bureaus' American Community Survey (ACS), 2019	Census tract
	Renters	% of population	Upper 50th percentile	U.S. Census Bureaus' American Community Survey (ACS), 2019	Census tract
	No internet access at home	% of population	Upper 50th percentile	U.S. Census Bureaus' American Community Survey (ACS), 2019	Census tract
	Population density	People per square mile	Upper 50th percentile	U.S. Census Bureaus' American Community Survey (ACS), 2019	Census tract
	Formerly redlined	Yes/No	Yes	University of Richmond, Mapping Inequity Project	Census tract

DRAFT


Tree Canopy Equity Priority Index
Urban Forest Management Plan
LOS ANGELES CITY PLANNING
Pacific Ocean
Canopy Equity
Low
Medium
High
Very High
Census Tracts
0
2.5
5
Miles
N

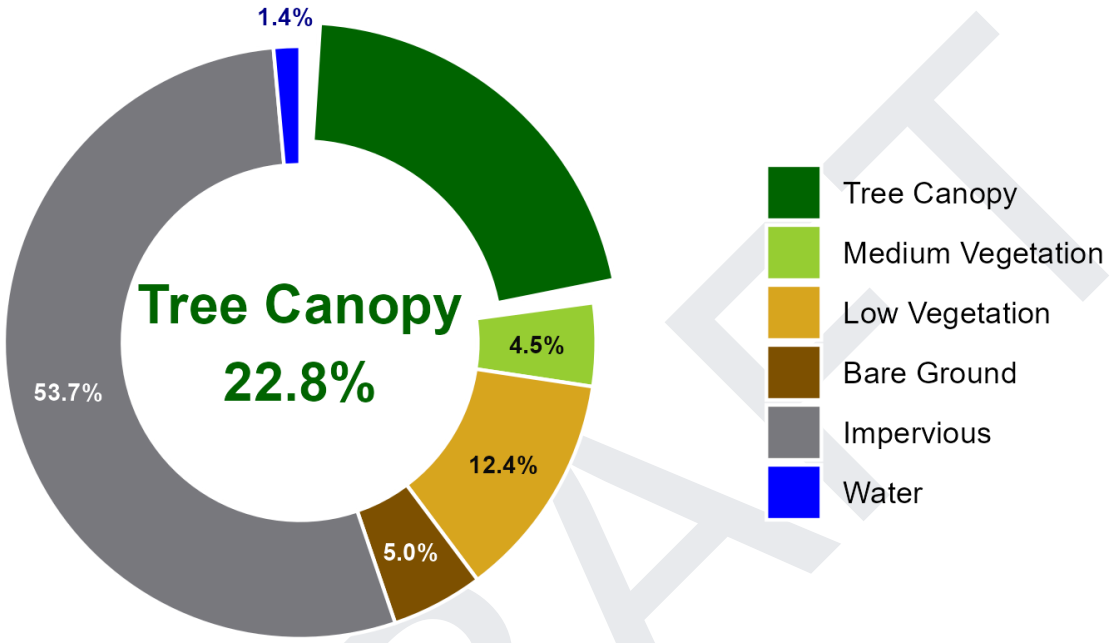
[This page left intentionally blank]

DRAFT

Appendix L - Summaries of Tree Canopy Cover by Different Geographic Boundaries

[All graphics included in this appendix are currently in draft form]

Figure L.1 - Citywide Land Canopy Breakdown



Land Cover Type	Land Cover Percent
Tree Canopy	22.8%
Medium Vegetation	4.5%
Low Vegetation	12.4%
Bare Ground	5%
Impervious	53.7%
Water	1.4%

DRAFT

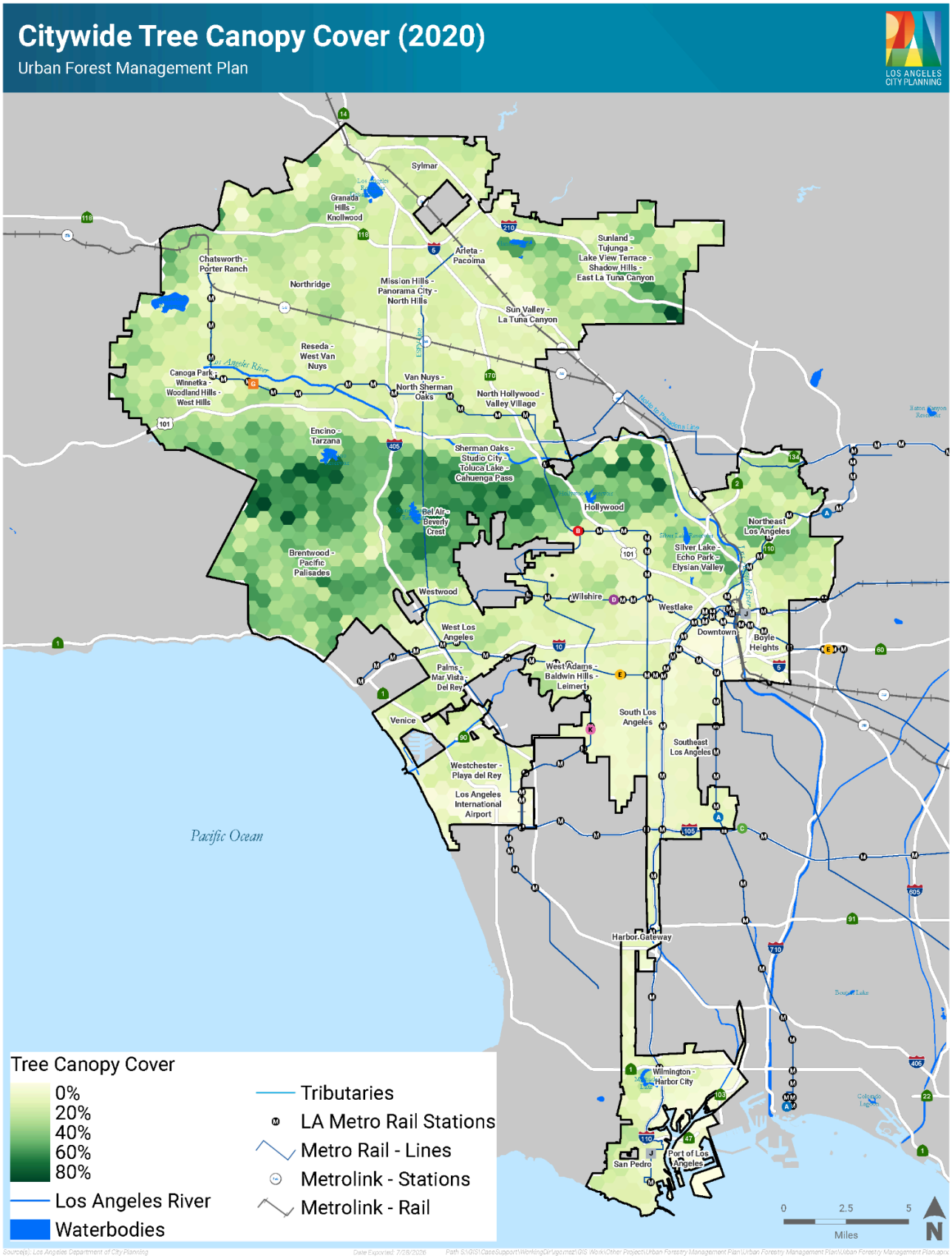
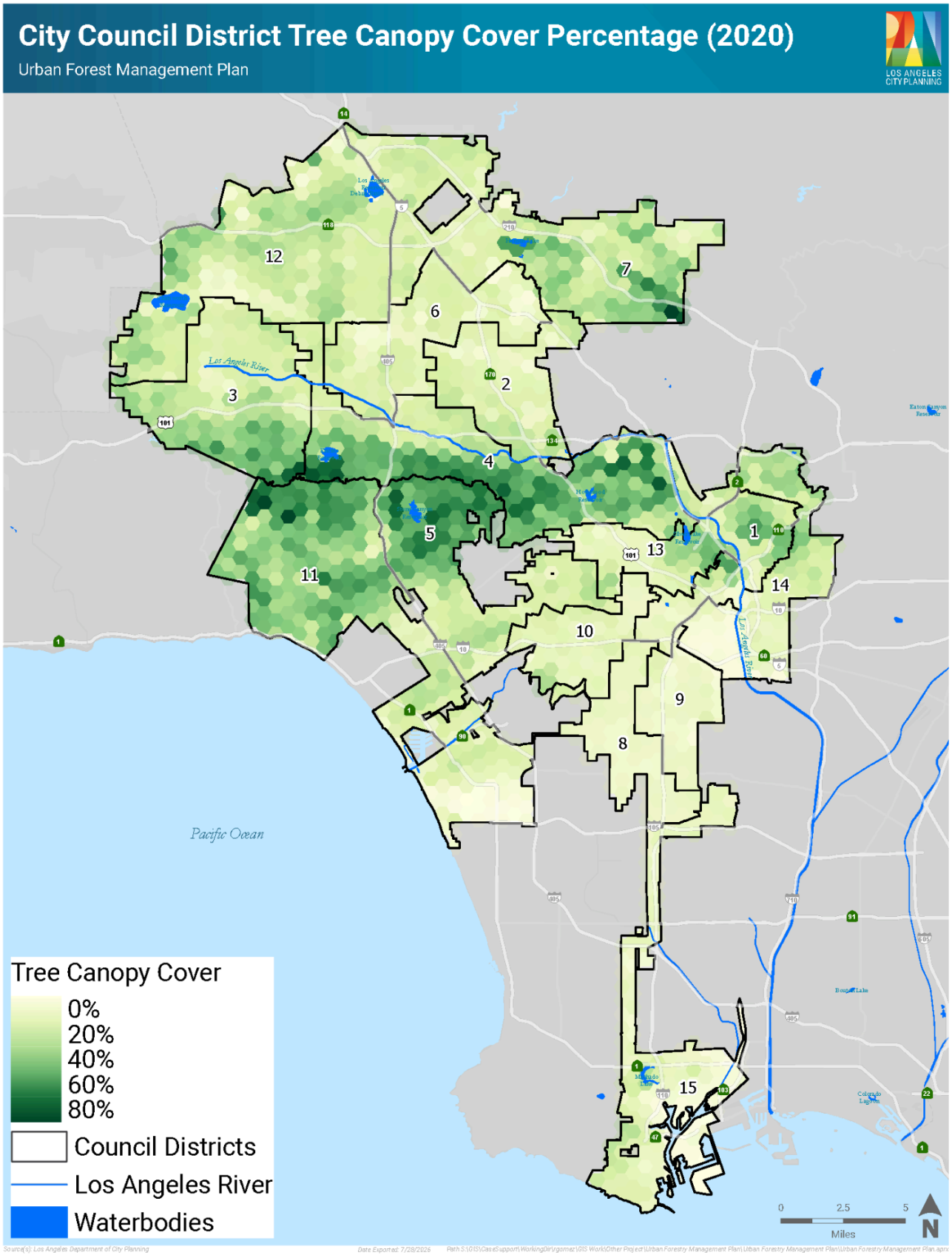
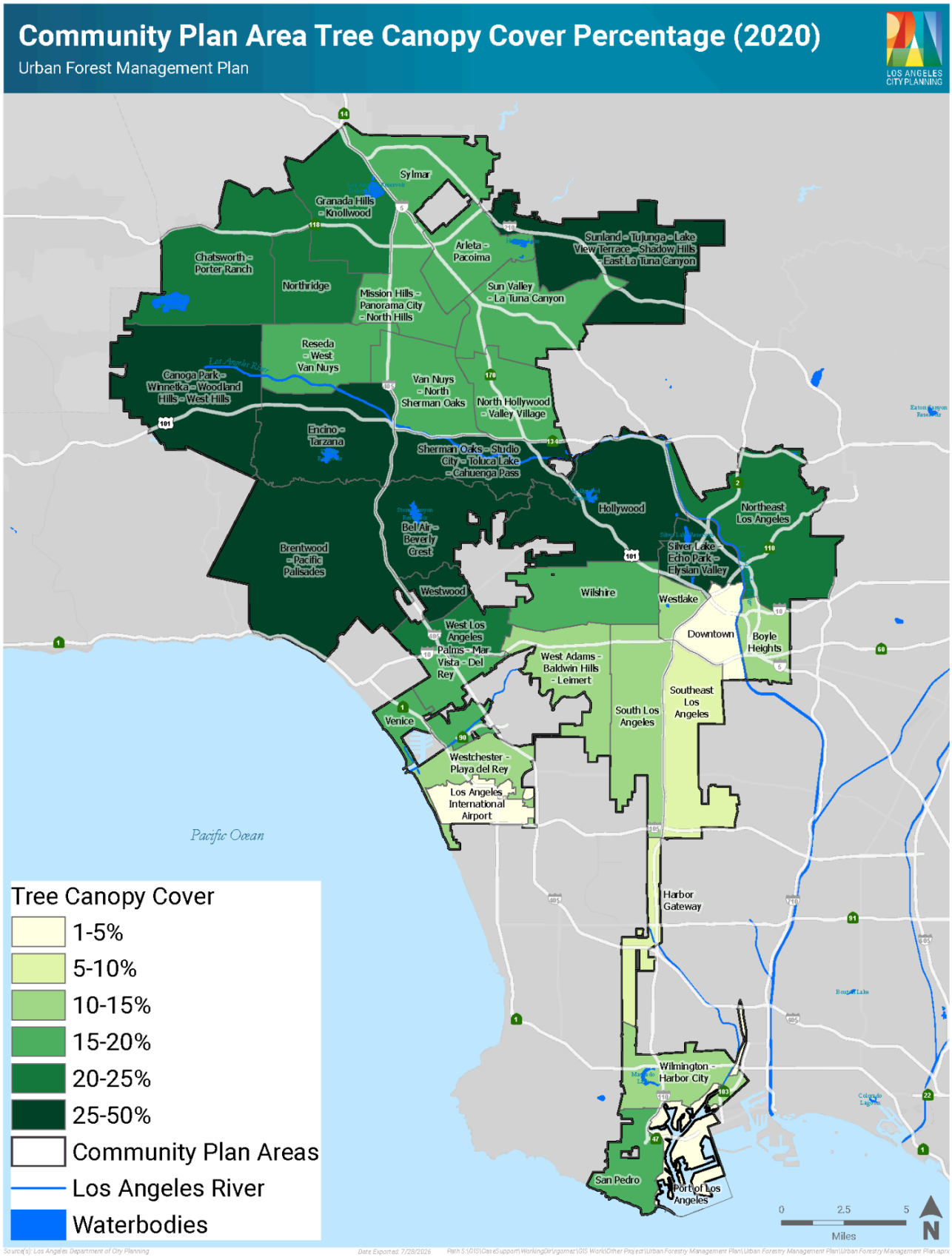

Citywide Tree Canopy Cover (2020)
Urban Forest Management Plan
LOS ANGELES CITY PLANNING
Sylmar
Granada Hills - Knollwood
Chatsworth - Porter Ranch
Northridge
Arleta - Pacoima
Mission Hills - Panorama City - North Hills
Sunland - Tujunga - Lake View Terrace - Shadow Hills - East La Tuna Canyon
Sun Valley - La Tuna Canyon
Reseda - West Van Nuys
Canoga Park - Winnetka - Woodland Hills - West Hills
Van Nuys - North Sherman Oaks
North Hollywood - Valley Village
Encino - Tarzana
Sherman Oaks - Studio City - Toluca Lake - Cahuenga Pass
Hollywood
Bel Air - Beverly Crest
Brentwood - Pacific Palisades
Westwood
Wilshire
Westlake
Northeast Los Angeles
Silver Lake - Echo Park - Elysian Valley
Downtown
Boyle Heights
West Los Angeles
Palms - Mar Vista - Del Rey
West Adams - Baldwin Hills - Leimert
Venice
South Los Angeles
Southeast Los Angeles
Westchester - Playa del Rey
Los Angeles International Airport
Pacific Ocean
Harbor Gateway
Wilmington - Harbor City
San Pedro
Port of Los Angeles
Tree Canopy Cover
0%
20%
40%
60%
80%
Los Angeles River
Waterbodies
Tributaries
LA Metro Rail Stations
Metro Rail - Lines
Metrolink - Stations
Metrolink - Rail
0
2.5
5
Miles
N

Figure L.2 - Council District Land Canopy Cover Breakdown

Council District	Tree Canopy	Medium Vegetation	Low Vegetation	Bare Earth	Impervious Surface	Water
District 1	23%	0.8%	10.5%	2.7%	62.9%	0.1%
District 2	17.2%	0.3%	9.5%	3.3%	69.1%	0.5%
District 3	26.7%	2.9%	11.1%	3.3%	55.3%	0.7%
District 4	37.3%	3.9%	12.5%	3.8%	41.4%	1.2%
District 5	33.6%	3.2%	12.6%	2.7%	46.9%	0.9%
District 6	14.5%	0.5%	11.2%	8.8%	64.6%	0.4%
District 7	23.9%	9.2%	17.9%	11.5%	37.3%	0.2%
District 8	9.6%	0.1%	12%	0.6%	77.7%	0%
District 9	9%	0.1%	5.6%	0.8%	84.5%	0%
District 10	13.8%	0.2%	9.4%	0.7%	75.8%	0.1%
District 11	28.9%	16.7%	12.8%	4.5%	36.4%	0.5%
District 12	21.9%	2.2%	17.4%	7.7%	50.0%	0.8%
District 13	20.1%	0.3%	6.7%	1.3%	71.1%	0.5%
District 14	16.6%	0.9%	9.3%	3.1%	70%	0.1%
District 15	9%	0.5%	8.4%	4.7%	65%	12.3%

DRAFT


City Council District Tree Canopy Cover Percentage (2020)
Urban Forest Management Plan
LOS ANGELES CITY PLANNING
12
7
6
2
3
4
5
1
13
11
14
10
9
8
15
Los Angeles River
Pacific Ocean
Tree Canopy Cover
0%
20%
40%
60%
80%
Council Districts
Los Angeles River
Waterbodies
0
2.5
5
Miles
N


Community Plan Area Tree Canopy Cover Percentage (2020)
Urban Forest Management Plan
LOS ANGELES CITY PLANNING
Sylmar
Granada Hills - Knollwood
Chatsworth - Porter Ranch
Northridge
Arleta - Pacoima
Sunland - Tujunga - Lake View Terrace - Shadow Hills - East La Tuna Canyon
Mission Hills - Panorama City - North Hills
Sun Valley - La Tuna Canyon
Reseda - West Van Nuys
Canoga Park - Winnetka - Woodland Hills - West Hills
Van Nuys - North Sherman Oaks
North Hollywood - Valley Village
Encino - Tarzana
Sherman Oaks - Studio City - Toluca Lake - Cahuenga Pass
Hollywood
Northeast Los Angeles
Bel Air - Beverly Crest
Brentwood - Pacific Palisades
Silver Lake - Echo Park - Elysian Valley
Westwood
Wilshire
Westlake
Downtown
Boyle Heights
West Los Angeles
Palms - Mar Vista - Del Rey
West Adams - Baldwin Hills - Leimert
Southeast Los Angeles
South Los Angeles
Venice
Westchester - Playa del Rey
Los Angeles International Airport
Pacific Ocean
Harbor Gateway
Wilmington - Harbor City
San Pedro
Port of Los Angeles
Tree Canopy Cover
1-5%
5-10%
10-15%
15-20%
20-25%
25-50%
Community Plan Areas
Los Angeles River
Waterbodies
0
2.5
5
Miles
N

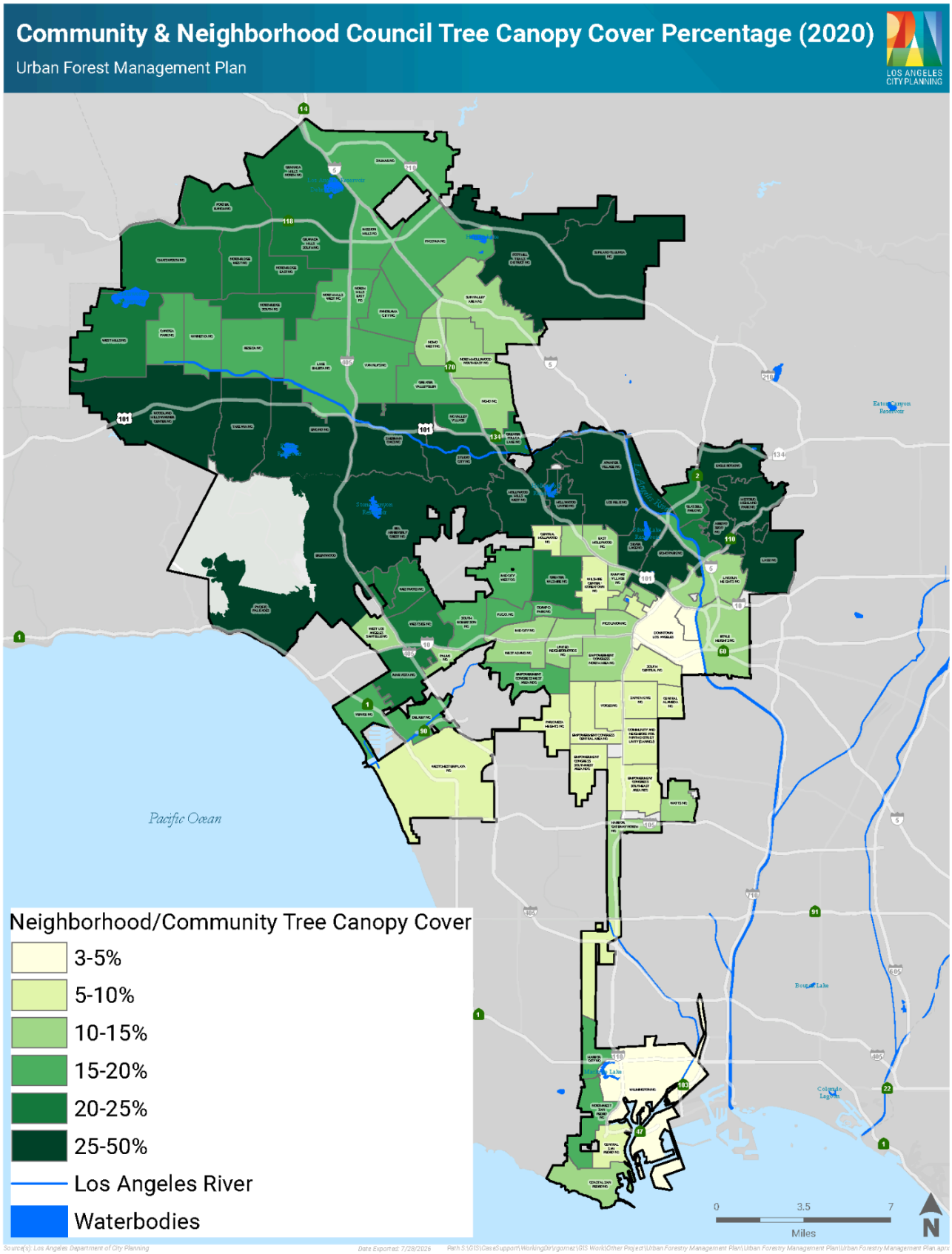

Community & Neighborhood Council Tree Canopy Cover Percentage (2020)
Urban Forest Management Plan
LOS ANGELES CITY PLANNING
Pacific Ocean
Neighborhood/Community Tree Canopy Cover
3-5%
5-10%
10-15%
15-20%
20-25%
25-50%
Los Angeles River
Waterbodies
0
3.5
7
Miles
N

Figure L.3 - Neighborhood Land Canopy Cover Breakdown

Canopy Cover Range	Number of Neighborhoods	Percent of Neighborhoods	Percent of Total City Area
Tree Canopy Cover Under 15 Percent			
	44	**39%**	**29%**
Under 5%	1	1%	1%
5% to 10%	17	15%	9%
10% to 15%	26	23%	19%
Tree Canopy Cover Between 15 to 20 Percent			
15% to 25%	41	35%	32%
Tree Canopy Cover Over 25 Percent			
Over 25%	29	25%	38%

DRAFT

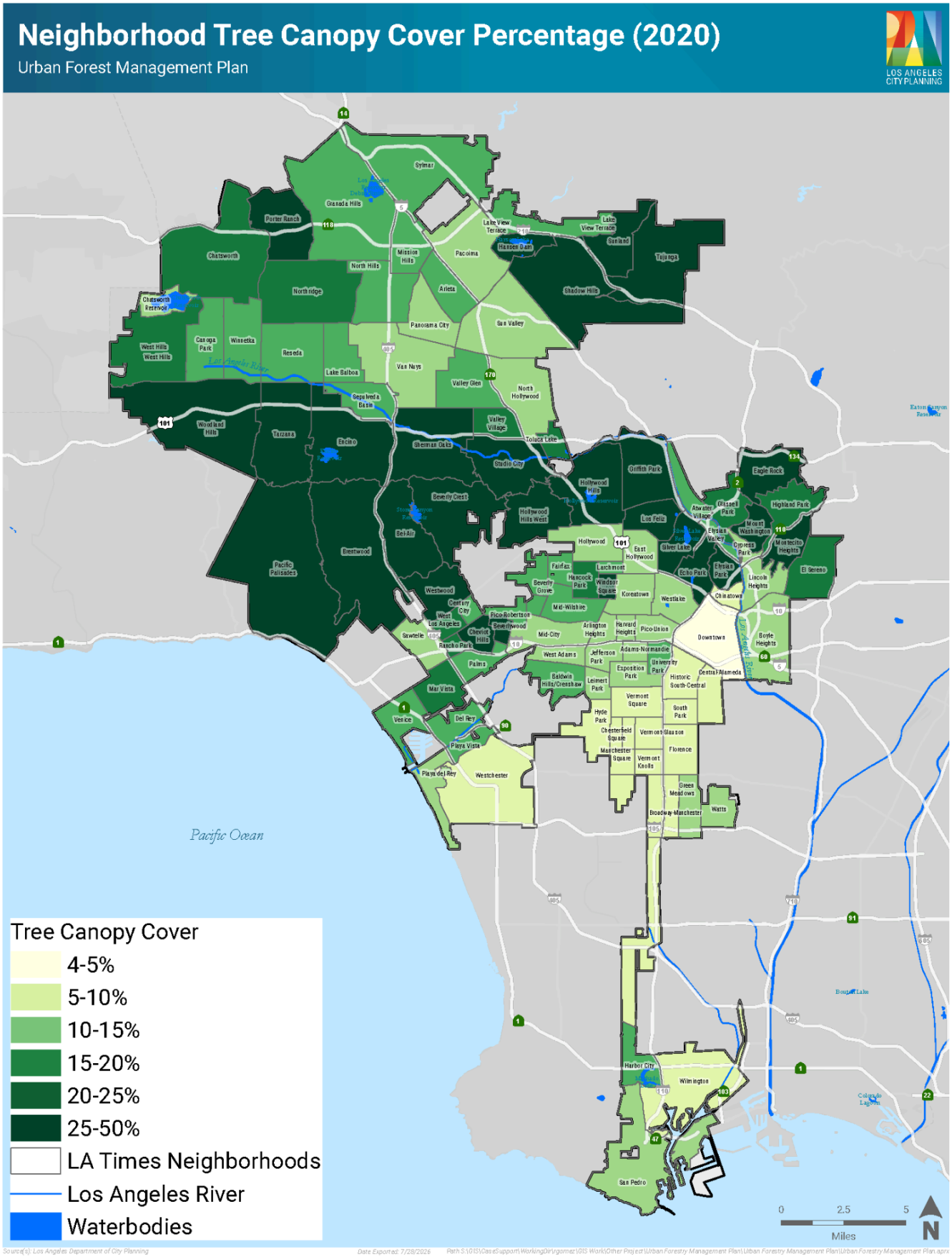

Neighborhood Tree Canopy Cover Percentage (2020)
Urban Forest Management Plan
LOS ANGELES CITY PLANNING
Tree Canopy Cover
4-5%
5-10%
10-15%
15-20%
20-25%
25-50%
LA Times Neighborhoods
Los Angeles River
Waterbodies
Pacific Ocean
0
2.5
5
Miles
N

Figure L.4 - Census Tract Land Canopy Cover Breakdown

Canopy Cover Range	Total Population	Percent of Total Population	Total Census Tracts	Percent of Total Census Tracts
Tree Canopy Cover Under 15%				
	1,917,089	**49%**	**546**	**49%**
Under 5%	68,870	2%	31	3%
5% to 10%	782,989	20%	216	19%
10% to 15%	1,065,230	27%	299	27%
Tree Canopy Cover Between 15 to 20%				
15% to 25%	1,506,256	38%	409	37%
Tree Canopy Cover Over 25%				
Over 25%	566,149	14%	165	15%

DRAFT

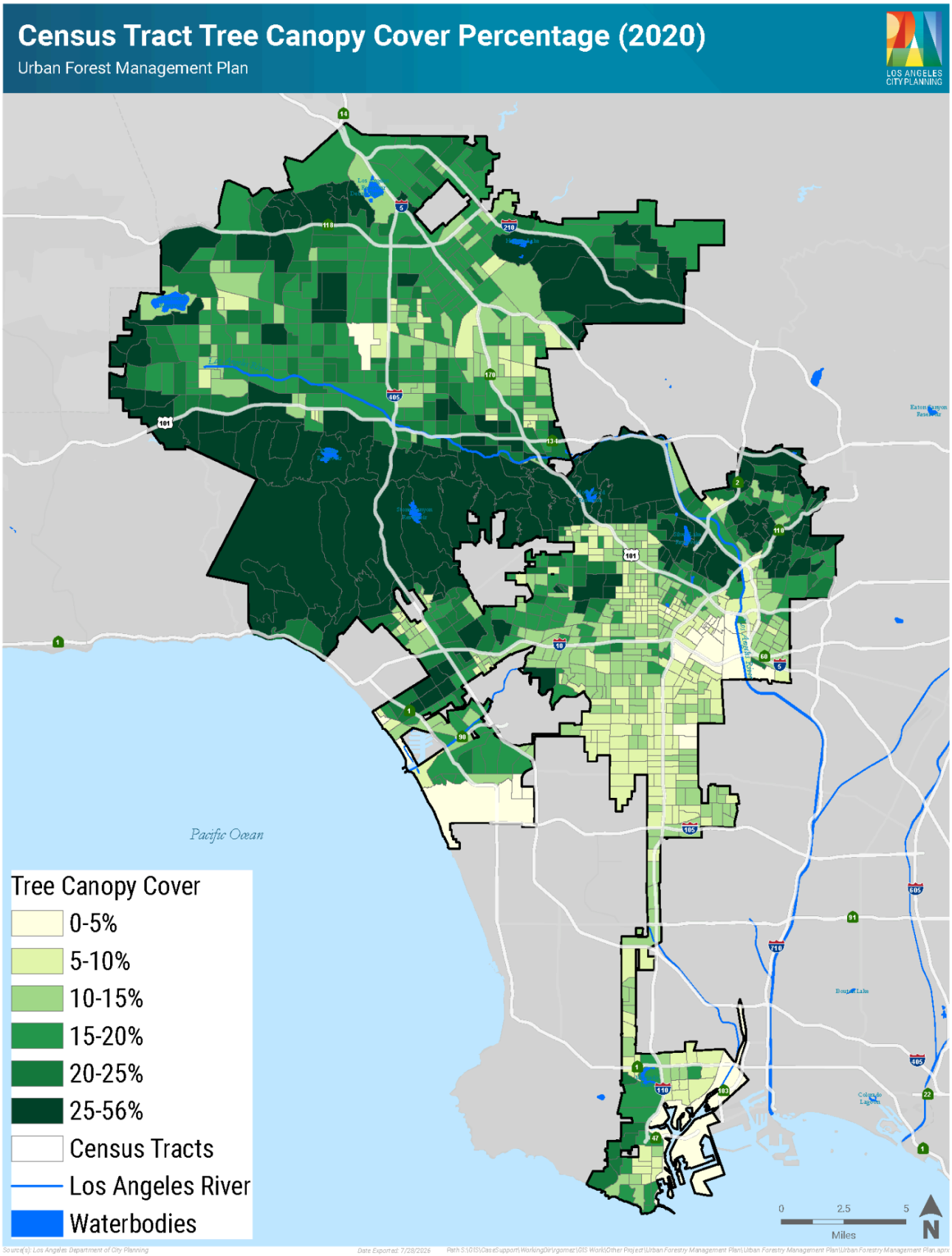

Census Tract Tree Canopy Cover Percentage (2020)
Urban Forest Management Plan
LOS ANGELES CITY PLANNING
Pacific Ocean
Tree Canopy Cover
0-5%
5-10%
10-15%
15-20%
20-25%
25-56%
Census Tracts
Los Angeles River
Waterbodies
0
2.5
5
Miles
N

Figure L.5 - City Park Land Canopy Cover Breakdown

Park	Tree Canopy	Medium Vegetation	Low Vegetation	Bare Earth	Impervious Surface	Water
105th Street Pocket Park	36%	0%	1%	0%	63%	0%
109th Street Recreation Center	8%	0%	33%	8%	51%	0%
111th Place Pocket Park	5%	0%	1%	3%	90%	0%
11th Avenue Park	16%	0%	28%	3%	53%	0%
1st And Broadway Civic Center Park (TBD)	4%	0%	0%	85%	10%	0%
4206 S Main St Maintenance Yard	2%	0%	0%	0%	98%	0%
49th Street Pocket Park	32%	0%	11%	0%	57%	0%
61st Street Pocket Park	51%	0%	4%	3%	42%	0%
6th & Gladys Street Park	28%	0%	5%	1%	67%	0%
6th Street Bridge Park	1%	0%	0%	12%	86%	0%
75th Street Elementary Community School Park	5%	0%	3%	0%	93%	0%
76th Street Pocket Park	36%	0%	3%	3%	58%	0%
97th Street Pocket Park	23%	0%	17%	9%	51%	0%
Albert Piantanida Intergenerational Center	39%	1%	22%	5%	33%	0%
Albion Riverside Park	6%	4%	32%	6%	53%	0%
Alexandria Park	24%	0%	32%	34%	10%	0%
Algin Sutton Recreation Center	14%	0%	36%	10%	39%	1%
Aliso Canyon Park	41%	3%	42%	13%	1%	0%
Aliso Triangle	43%	0%	0%	0%	57%	0%
Aliso-Pico Recreation Center	6%	0%	1%	0%	93%	0%
Alizondo Drive Park	54%	0%	43%	2%	1%	0%
Allegheny Park	17%	0%	31%	18%	34%	0%
Alma Park	73%	0%	24%	1%	2%	0%

DRAFT

Park	Tree Canopy	Medium Vegetation	Low Vegetation	Bare Earth	Impervious Surface	Water
Alpine Recreation Center	17%	0%	21%	1%	61%	0%
Alvarado Terrace Park	29%	0%	44%	0%	27%	0%
Amistad Park	33%	0%	10%	0%	56%	0%
Amoroso Triangle	87%	6%	0%	0%	7%	0%
Anderson Memorial Senior Citizen Center	35%	0%	15%	0%	51%	0%
Andres Pico Adobe Park	50%	0%	20%	2%	28%	0%
Andres and Maria Cardenas Recreation Center	27%	0%	3%	0%	69%	1%
Angeles Mesa Park	17%	0%	10%	0%	73%	0%
Angels Gate Park	17%	0%	53%	5%	24%	0%
Anthony C Beilenson Park	22%	1%	40%	17%	12%	7%
Armand Hammer Golf Course	38%	0%	59%	0%	3%	0%
Arroyo Rosa De Castilla Proposed Dog Park	29%	0%	66%	3%	2%	0%
Arroyo Seco Park	41%	1%	21%	9%	21%	0%
Arts District Park	15%	0%	18%	2%	65%	0%
Ascot Hills Park	18%	9%	62%	9%	2%	0%
Augustus F Hawkins Natural Park	69%	0%	12%	7%	12%	0%
Autry Museum	29%	0%	22%	2%	47%	0%
Avalon-San Pedro Park	43%	0%	33%	2%	22%	0%
Avenue 57 Pocket Park	32%	0%	58%	8%	2%	0%
Avenue 60 Pocket Park	55%	0%	31%	6%	8%	0%
Avenue 64 Park	39%	0%	22%	12%	27%	0%
Averill Park	57%	0%	34%	1%	8%	0%
Balboa Golf Course	19%	0%	50%	26%	5%	0%
Balboa Sports Center	15%	0%	54%	11%	19%	0%

DRAFT

Park	Tree Canopy	Medium Vegetation	Low Vegetation	Bare Earth	Impervious Surface	Water
Baldwin Hills Recreation Center	17%	0%	39%	10%	34%	0%
Bandini Canyon Park	44%	0%	48%	1%	7%	0%
Banning High School Pool	0%	0%	0%	0%	99%	0%
Banning Park	50%	0%	31%	2%	17%	0%
Barnsdall Park	49%	0%	16%	2%	32%	0%
Barrington Recreation Center	34%	0%	25%	5%	35%	0%
Bee Canyon Park	49%	0%	42%	5%	4%	0%
Bell Canyon Park	27%	11%	51%	9%	2%	0%
Bellaire Avenue Park	28%	1%	17%	5%	46%	3%
Bellevue Recreation Center	44%	0%	24%	8%	23%	0%
Benny H Potter West Adams Avenues Memorial Park	49%	0%	25%	1%	26%	0%
Bette Davis Picnic Area	29%	0%	50%	19%	3%	0%
Betty F Day Park	91%	0%	0%	0%	9%	0%
Beverly Glen Park	61%	20%	14%	5%	0%	0%
Bill Rosendahl Del Rey Park	22%	0%	47%	3%	28%	0%
Boyle Heights Sports Center	31%	0%	10%	9%	49%	0%
Brand Park	26%	0%	59%	6%	8%	0%
Branford Recreation Center	21%	0%	40%	12%	27%	0%
Briarwood Park	57%	1%	36%	3%	3%	0%
Bronson Canyon	41%	23%	23%	12%	2%	0%
Brooklyn Heights Park	34%	0%	23%	1%	41%	0%
Browns Creek Park	67%	8%	12%	4%	1%	0%
Budd Wiener Park	36%	0%	62%	0%	2%	0%
Caballero Creek Confluence Park	26%	0%	3%	60%	11%	0%
Cabrillo Beach	11%	0%	11%	28%	48%	1%

DRAFT

Park	Tree Canopy	Medium Vegetation	Low Vegetation	Bare Earth	Impervious Surface	Water
Cahuenga Elementary Community School Park	2%	0%	0%	0%	98%	0%
Campo De Cahuenga	21%	0%	4%	2%	72%	0%
Canoga Park Senior Citizen Center	25%	0%	12%	0%	63%	0%
Caplow Property	44%	40%	13%	4%	0%	0%
Carey Ranch Park	41%	1%	49%	3%	6%	0%
Carlin G Smith Recreation Center	58%	0%	33%	0%	9%	0%
Carlton Way Park	37%	0%	5%	1%	55%	2%
Carthay Circle Park	53%	0%	38%	0%	9%	0%
Castle Peak Park	26%	0%	58%	8%	7%	0%
Central Avenue Jazz Park	4%	0%	33%	0%	61%	2%
Central Recreation Center	6%	0%	18%	12%	64%	0%
Challengers Boys And Girls Club	5%	0%	14%	0%	80%	1%
Charles F Lummis Home and Gardens, El Alisal	86%	0%	2%	2%	9%	0%
Chatsworth Oaks Park	45%	2%	21%	22%	10%	0%
Chatsworth Park North	42%	6%	20%	17%	15%	0%
Chatsworth Recreation Center	41%	14%	17%	20%	8%	0%
Chatsworth Reservoir Site	35%	17%	33%	13%	1%	0%
Chesterfield Square Park	56%	0%	33%	0%	12%	0%
Cheviot Hills Recreation Center	28%	0%	54%	2%	16%	0%
Chevy Chase Park	18%	0%	19%	3%	61%	0%
Circle Park (5th Ave)	2%	0%	93%	0%	3%	0%
Circle Park (S Gramercy Pl)	0%	0%	94%	0%	6%	0%
City Hall Park	73%	0%	17%	0%	9%	0%
Claude Pepper Senior Citizen Center	6%	0%	0%	0%	94%	0%
Cleland Avenue Bicentennial Park	47%	0%	34%	2%	16%	0%

DRAFT

Park	Tree Canopy	Medium Vegetation	Low Vegetation	Bare Earth	Impervious Surface	Water
Cleveland High School Pool	12%	0%	5%	1%	82%	0%
Club Circle Park	38%	0%	61%	1%	0%	0%
Cohasset-Melba Park	38%	0%	42%	11%	8%	0%
Coldwater Canyon Park	66%	6%	19%	6%	3%	0%
Community Build Youth Center Expansion	0%	0%	0%	0%	100%	0%
Corbin Canyon Park	29%	9%	56%	5%	0%	0%
Costanso Fire Station 84 Park	24%	0%	22%	4%	51%	0%
Country Club Heritage Park	52%	0%	14%	1%	33%	0%
Crescent Place Triangle	89%	0%	0%	0%	11%	0%
Crestwood Hills Recreation Center	47%	7%	38%	6%	3%	0%
Culver-Slauson Park	28%	0%	23%	8%	40%	0%
Cypress Park Club House	3%	1%	10%	0%	85%	0%
Cypress Recreation Center	17%	0%	54%	6%	22%	0%
David M Gonzales Recreation Center	14%	0%	58%	11%	17%	0%
De Garmo Park	23%	0%	46%	20%	11%	0%
De Longpre Park	65%	0%	3%	1%	31%	0%
De Neve Square Park	62%	0%	36%	2%	0%	0%
Dearborn Park	46%	0%	39%	2%	13%	0%
Deervale-Stone Canyon Park	63%	6%	29%	2%	0%	0%
Del Rey Lagoon	15%	0%	34%	16%	30%	5%
Delano Recreation Center	10%	0%	37%	8%	44%	0%
Denker And Torrance Pocket Park	34%	0%	1%	0%	65%	0%
Denker Recreation Center	10%	0%	45%	9%	36%	0%
Devonshire Arleta Park	24%	2%	28%	7%	38%	0%
Devonwood Park	41%	0%	37%	5%	17%	0%

DRAFT

Park	Tree Canopy	Medium Vegetation	Low Vegetation	Bare Earth	Impervious Surface	Water
Dorothy J and Benjamin B Smith Park	61%	0%	19%	16%	4%	0%
Downey Pool	34%	0%	16%	0%	50%	0%
Downey Recreation Center	17%	0%	24%	11%	48%	0%
Drew Street Park	37%	6%	0%	1%	56%	0%
Drum Barracks Civil War Museum	23%	0%	13%	0%	64%	0%
Drum Barracks Park	23%	0%	18%	1%	56%	2%
EXPO Center	16%	0%	9%	2%	71%	1%
Eagle Rock City Hall	41%	0%	0%	0%	59%	0%
Eagle Rock Hillside Park	42%	26%	24%	8%	0%	0%
Eagle Rock Historical Landmark	51%	2%	15%	31%	2%	0%
Eagle Rock Recreation Center	31%	0%	40%	10%	19%	0%
East Los Angeles Park	26%	0%	56%	3%	15%	0%
East Wilmington Greenbelt Community Center	17%	0%	7%	0%	76%	0%
East Wilmington Vest Pocket Park	23%	0%	0%	1%	76%	0%
Echo Park	30%	1%	18%	4%	26%	22%
Echo Park Deep Pool	33%	0%	6%	1%	60%	0%
Eddleston Park	29%	1%	52%	17%	1%	0%
El Dorado Avenue Park	6%	0%	63%	20%	11%	0%
El Escorpion Park	29%	8%	52%	10%	1%	0%
El Paseo De Cahuenga Park	34%	0%	53%	11%	2%	0%
El Pueblo de Los Angeles Historic Monument	56%	0%	17%	0%	27%	0%
El Sereno Arroyo Playground	56%	0%	23%	14%	6%	0%
El Sereno Community Garden	60%	7%	11%	9%	13%	0%
El Sereno Recreation Center	20%	1%	35%	9%	35%	0%
El Sereno Senior Citizen Center	40%	0%	0%	0%	60%	0%

DRAFT

Park	Tree Canopy	Medium Vegetation	Low Vegetation	Bare Earth	Impervious Surface	Water
Eleanor Green Roberts Aquatic Center	4%	0%	1%	0%	95%	0%
Elysian Park	59%	5%	23%	5%	9%	0%
Elysian Valley Recreation Center	2%	0%	48%	8%	42%	0%
Encino Community Center	15%	0%	2%	0%	83%	0%
Encino Golf Course	20%	0%	44%	30%	5%	0%
Encino Park	48%	1%	20%	1%	31%	0%
Encino Park and Ride	25%	0%	3%	1%	71%	0%
Encino Women's Club	34%	0%	0%	0%	66%	0%
Ernest E Debs Regional Park	51%	3%	34%	8%	4%	0%
Everett Park	47%	0%	52%	0%	0%	0%
Evergreen Recreation Center	11%	0%	38%	13%	38%	0%
Exposition Park Rose Garden	39%	1%	45%	2%	13%	0%
Fairfax Senior Citizen Center	18%	0%	0%	0%	82%	0%
Fallbrook Park	3%	15%	23%	3%	55%	1%
Fehlhaber-Houk Park	62%	0%	21%	8%	10%	0%
Felicia Mahood Multipurpose Center	16%	0%	2%	0%	81%	0%
Fernangeles Recreation Center	24%	0%	34%	17%	25%	0%
Fox And Laurel Park	52%	2%	12%	6%	29%	0%
Francis Avenue Community Garden	81%	0%	4%	0%	14%	0%
Franklin-Ivar Park	27%	2%	31%	23%	18%	0%
Fred Roberts Recreation Center	29%	0%	20%	1%	50%	0%
Fremont High School Pool	7%	0%	0%	0%	93%	0%
Fulton Avenue Park	45%	0%	19%	10%	25%	0%
Gaffey Street "Field of Dreams"	3%	0%	80%	3%	14%	0%
Gage and Avalon Triangle Pocket Park	22%	0%	13%	4%	60%	0%
Garvanza Park	18%	0%	51%	4%	26%	0%

DRAFT

Park	Tree Canopy	Medium Vegetation	Low Vegetation	Bare Earth	Impervious Surface	Water
Genesee Avenue Park	51%	0%	37%	3%	9%	0%
George Wolfberg Park at Potrero Canyon	12%	0%	14%	65%	9%	0%
Gilbert W Lindsay Recreation Center	22%	0%	18%	4%	55%	0%
Gladys Jean Wesson Park	38%	0%	21%	1%	40%	1%
Glassell Park Recreation Center and Youth Center	21%	0%	42%	7%	30%	0%
Glenhurst Park	49%	0%	38%	0%	13%	0%
Granada Hills Recreation Center	18%	0%	43%	10%	29%	0%
Granada Hills Youth Recreation Center	5%	0%	67%	16%	12%	0%
Grand Hope Park	30%	0%	22%	1%	47%	0%
Greayer's Oak Park	58%	0%	29%	0%	13%	0%
Green Meadows Recreation Center	17%	0%	36%	9%	37%	0%
Greenwood Square Park	17%	9%	16%	0%	58%	0%
Griffith Park	45%	12%	23%	11%	8%	0%
Griffith Park Boys Camp	64%	1%	9%	5%	22%	0%
Griffith Park Central Service Yard	19%	0%	1%	3%	77%	0%
Griffith Park Dog Park	26%	0%	5%	69%	0%	0%
Griffith Park John Ferraro Soccer Fields	17%	0%	52%	6%	24%	0%
Griffith Park Pollywog Area	14%	0%	74%	10%	2%	0%
Grigsby Pocket Park	29%	0%	5%	0%	66%	0%
Guardia Park	42%	0%	24%	21%	13%	0%
Haines Canyon Park	54%	22%	17%	5%	1%	0%
Hansen Dam Aquatic Center	14%	0%	33%	16%	34%	1%
Hansen Dam Gabreieleno Equestrian Center	10%	1%	4%	44%	41%	0%
Hansen Dam Golf Course	22%	0%	64%	7%	7%	0%

DRAFT

Park	Tree Canopy	Medium Vegetation	Low Vegetation	Bare Earth	Impervious Surface	Water
Hansen Dam Orcas Park	31%	1%	28%	32%	8%	0%
Hansen Dam Quarry Lake	58%	4%	32%	7%	0%	0%
Hansen Dam Recreation Area	35%	6%	30%	23%	7%	0%
Hansen Dam Sports Complex	14%	0%	55%	25%	6%	0%
Harbor City Park	23%	0%	44%	9%	25%	0%
Harbor Highlands Park	43%	0%	43%	1%	12%	0%
Harbor Park Golf Course	26%	1%	61%	5%	8%	0%
Harbor View Memorial Park	35%	0%	58%	0%	6%	0%
Harding Golf Course	25%	1%	64%	5%	6%	0%
Harold A Henry Park	59%	0%	24%	0%	17%	0%
Hartland Mini-Park	58%	0%	0%	0%	42%	0%
Harvard Elementary Community School Park	12%	0%	29%	6%	53%	0%
Hazard Recreation Center	32%	0%	44%	7%	17%	0%
Henry Alvarez Memorial Park	55%	0%	36%	2%	7%	0%
Heritage Square	59%	0%	13%	1%	27%	0%
Hermon Dog Park	32%	0%	13%	33%	22%	0%
Hermon Park	45%	1%	14%	9%	31%	0%
Highland Park Recreation Center	12%	0%	40%	4%	44%	0%
Highland Park Senior Citizen Center	32%	0%	19%	3%	46%	0%
Hillhurst Parkway	15%	0%	79%	0%	6%	0%
Hjelte Sports Center	9%	0%	46%	34%	11%	0%
Holleigh Bernson Memorial Park	5%	0%	71%	11%	12%	0%
Hollenbeck Park	32%	0%	34%	5%	26%	2%
Hollywood Recreation Center	17%	0%	32%	9%	41%	0%
Hollywoodland Girl's Camp	64%	1%	7%	14%	15%	0%

DRAFT

Park	Tree Canopy	Medium Vegetation	Low Vegetation	Bare Earth	Impervious Surface	Water
Holmby Park	48%	0%	33%	6%	13%	0%
Hoover Pedestrian Mall	49%	0%	14%	1%	37%	0%
Hoover Recreation Center	25%	0%	36%	3%	35%	0%
Hoover-Gage Park	51%	0%	5%	1%	43%	0%
Hope and Peace Park	21%	0%	21%	4%	53%	0%
Howard Finn Park	21%	1%	19%	2%	57%	0%
Hubert H Humphrey Memorial Park	13%	0%	43%	11%	32%	0%
Imperial Courts Recreation Center	7%	0%	28%	8%	56%	0%
Irving Schacter Park	42%	0%	22%	1%	33%	2%
Isidore B Dockweiler State Beach	1%	1%	5%	51%	35%	0%
Jacaranda Park	26%	1%	37%	4%	31%	0%
Jackie Tatum / Harvard Recreation Center	9%	0%	43%	11%	36%	0%
Jaime Beth Slavin Park	13%	0%	53%	19%	15%	0%
James Slauson Recreation Center	9%	0%	28%	3%	60%	0%
Jessie Owens Mini-Park	67%	0%	25%	1%	7%	0%
Jim Gilliam Recreation Center	30%	0%	43%	2%	25%	0%
John Quimby Park	20%	0%	35%	11%	33%	0%
John S Gibson Jr Park	33%	0%	18%	0%	49%	0%
Jordan Downs Recreation Center	6%	0%	10%	19%	64%	0%
Julian C Dixon Park	18%	0%	41%	0%	41%	0%
Juntos Family Park	23%	0%	35%	2%	41%	0%
Kagel Canyon Park	16%	1%	70%	3%	11%	0%
Ken Malloy Harbor Regional Park	42%	2%	29%	8%	10%	9%
Kittridge Mini-Park	43%	0%	0%	0%	57%	0%
Knapp Ranch Addition Park	24%	8%	53%	7%	6%	0%

DRAFT

Park	Tree Canopy	Medium Vegetation	Low Vegetation	Bare Earth	Impervious Surface	Water
Knapp Ranch Park	36%	5%	46%	6%	7%	0%
LA Equestrian Center	13%	0%	7%	41%	39%	0%
LA Live Steamers	53%	0%	8%	2%	37%	0%
LA Youth Athletic Club	1%	0%	0%	6%	94%	0%
LAPD SWAT Officer Randal D Simmons Park	43%	0%	52%	2%	2%	0%
La Mirada Park	25%	3%	15%	1%	56%	0%
La Tierra de la Culebra	85%	0%	5%	3%	7%	0%
La Tuna Canyon Park	69%	19%	2%	10%	1%	0%
Lacy Street Neighborhood Park	57%	0%	38%	1%	4%	0%
Lafayette Recreation Center	31%	1%	21%	13%	34%	0%
Lake Hollywood Park	23%	0%	66%	5%	6%	0%
Lake Street Park	30%	0%	6%	0%	63%	0%
Lake View Terrace Recreation Center	26%	1%	35%	20%	17%	0%
Lanark Recreation Center	30%	0%	35%	12%	23%	0%
Lanark Shelby Mini-Park	38%	0%	32%	4%	26%	0%
Larchmont Mini Park	0%	0%	0%	0%	100%	0%
Larissa Parkway	74%	0%	2%	0%	23%	0%
Las Palmas Senior Citizen Center	29%	0%	19%	1%	52%	0%
Latham Park	49%	0%	11%	1%	38%	0%
Laurel Canyon Dog Park	6%	0%	11%	82%	1%	0%
Laurel Canyon Greenway	69%	0%	2%	0%	29%	0%
Laurel Canyon Mulholland Park	25%	1%	70%	2%	2%	0%
Laurel Canyon Park	57%	6%	16%	17%	3%	0%
Laurel Grove Park	25%	0%	50%	10%	15%	0%
Laurel and Hardy Park	37%	1%	40%	7%	14%	0%

DRAFT

Park	Tree Canopy	Medium Vegetation	Low Vegetation	Bare Earth	Impervious Surface	Water
Lazy J Ranch Park	17%	0%	54%	21%	8%	0%
Leimert Plaza	57%	0%	9%	8%	26%	0%
Leland Recreation Center	55%	0%	37%	2%	6%	0%
Lemon Grove Recreation Center	36%	0%	35%	3%	27%	0%
Leo Politi Elementary Community School Park	9%	0%	3%	0%	89%	0%
Leslie N Shaw Park	28%	0%	20%	1%	51%	0%
Lexington Avenue Pocket Park	40%	0%	9%	0%	51%	0%
Libbit Park & Encino Baseball Complex	13%	0%	47%	15%	25%	0%
Lilac Terrace Park	57%	2%	14%	3%	23%	0%
Limekiln Canyon Park	61%	1%	26%	8%	3%	0%
Lincoln Heights Recreation Center	34%	0%	13%	0%	53%	0%
Lincoln Heights Youth Center	13%	0%	0%	0%	87%	0%
Lincoln Park	32%	0%	39%	5%	23%	0%
Linnie Canal Park	48%	0%	26%	0%	27%	0%
Little Green Acres Park	21%	9%	33%	20%	17%	0%
Little Landers Park	63%	0%	13%	0%	24%	0%
Lookout Point Park	51%	0%	45%	0%	4%	0%
Loren Miller Recreation Center	12%	0%	27%	0%	61%	0%
Los Angeles Center for Enriched Studies (LACES)	3%	0%	38%	5%	55%	0%
Los Angeles High Memorial Park	44%	0%	31%	0%	25%	0%
Los Angeles Maritime Museum	6%	0%	8%	2%	82%	1%
Los Angeles Plaza Park	58%	0%	0%	0%	41%	0%
Los Angeles River & Aliso Creek Confluence Park	9%	5%	16%	55%	15%	0%
Los Angeles River Greenway	47%	0%	0%	0%	56%	0%

DRAFT

Park	Tree Canopy	Medium Vegetation	Low Vegetation	Bare Earth	Impervious Surface	Water
Los Angeles River Greenway / Elysian Valley Bikeway	25%	0%	0%	3%	71%	0%
Los Angeles Sister Cities Plaza	37%	0%	21%	0%	42%	0%
Los Angeles Zoo	51%	0%	7%	5%	37%	0%
Los Feliz Golf Course	46%	0%	34%	11%	9%	0%
Lou Costello Jr Recreation Center	14%	0%	35%	16%	35%	0%
Louise Park	27%	0%	50%	12%	10%	0%
Lummis Public Forest Park	74%	1%	17%	4%	4%	0%
MacArthur Park	28%	0%	29%	4%	21%	18%
Madison Avenue Park and Community Garden	17%	1%	19%	12%	51%	0%
Madison West Park	17%	0%	62%	6%	15%	0%
Mae Boyar Recreation Center	42%	0%	18%	2%	38%	0%
Mandeville Canyon Park	25%	51%	20%	4%	0%	0%
Mar Vista Gardens Recreation Center	13%	0%	56%	6%	25%	0%
Mar Vista Recreation Center	27%	0%	31%	12%	31%	0%
Marco Place Parkway	100%	0%	0%	0%	0%	0%
Marco Triangle	95%	0%	0%	0%	4%	0%
Marson Street Pocket Park	43%	0%	5%	4%	49%	0%
Martin J Bogdanovich Recreation Center	26%	1%	44%	8%	21%	0%
Martin Luther King Jr Park	23%	0%	23%	7%	47%	0%
Mascot Park	42%	0%	57%	0%	0%	0%
Mason Recreation Center	27%	0%	48%	12%	13%	0%
McGroarty Park and Cultural Art Center	79%	7%	5%	5%	4%	0%
McKinley Avenue Park	28%	0%	2%	0%	68%	0%
Mecca Avenue Park	42%	0%	13%	37%	8%	0%

DRAFT

Park	Tree Canopy	Medium Vegetation	Low Vegetation	Bare Earth	Impervious Surface	Water
Media Park	75%	0%	17%	0%	8%	0%
Miguel Contreras Learning Center Pool	0%	0%	0%	0%	94%	6%
Minnie Hill Palmer House / Homestead Acre	53%	1%	15%	9%	22%	0%
Monsignor Ramon Garcia Recreation Center	20%	0%	46%	14%	21%	0%
Montecito Heights Recreation Center	27%	0%	28%	7%	38%	0%
Moon Canyon Park	38%	0%	60%	2%	0%	0%
Moonshine Canyon Park	57%	1%	26%	15%	2%	0%
Moorpark Park	40%	0%	51%	1%	8%	0%
Mount Carmel Recreation Center	10%	0%	36%	7%	47%	0%
Mount Olympus Park	36%	2%	55%	4%	3%	0%
Mulholland View Site No 16	95%	0%	5%	1%	0%	0%
Nevin Avenue Park	14%	0%	0%	6%	80%	0%
Nordhoff Park	23%	0%	31%	2%	44%	0%
Norman O Houston Park	15%	0%	66%	2%	17%	0%
Normandale Recreation Center	12%	0%	51%	12%	24%	0%
Normandie And Cordova Park	5%	0%	12%	0%	84%	0%
Normandie Recreation Center	10%	0%	48%	6%	36%	0%
North Atwater Park	32%	0%	32%	21%	15%	0%
North East Valley Multipurpose Center	11%	1%	7%	6%	75%	0%
North Hills Community Park	27%	0%	20%	1%	51%	0%
North Hollywood Recreation Center	28%	0%	44%	12%	17%	0%
North San Fernando Park	24%	2%	11%	0%	63%	0%
North Venice Little League Baseball Field, Ocean View Farms	19%	13%	37%	21%	10%	0%
North Weddington Recreation Center	28%	0%	46%	3%	22%	0%

DRAFT

Park	Tree Canopy	Medium Vegetation	Low Vegetation	Bare Earth	Impervious Surface	Water
Northridge Recreation Center	26%	0%	37%	7%	29%	0%
Nowita Triangle	84%	0%	11%	0%	4%	0%
O'Melveny Park	23%	2%	51%	24%	0%	0%
Oakridge Residence	39%	0%	15%	30%	16%	0%
Oakwood Recreation Center	17%	0%	51%	10%	22%	0%
Old Encino Fire Station 83 Property	16%	0%	11%	0%	73%	0%
Old Mission Trail	13%	1%	68%	16%	2%	0%
Olguin Pool	0%	0%	0%	0%	93%	7%
Orchard Ave Park	44%	2%	5%	1%	48%	0%
Orcutt Ranch Horticultural Center	73%	0%	4%	13%	10%	0%
Ord And Yale Street Park (Expansion)	7%	0%	13%	30%	50%	0%
Oro Vista Park	8%	41%	6%	36%	9%	0%
Orthopedic Hospital Universal Access Playground	30%	0%	2%	0%	68%	0%
Pacific Region Headquarters	39%	1%	2%	1%	57%	0%
Palisades Park (Pacific Palisades)	34%	10%	38%	16%	1%	0%
Palisades Park (Porter Ranch)	15%	2%	48%	34%	1%	0%
Palisades Recreation Center	31%	0%	25%	11%	32%	0%
Palisades-Asilomar Park	18%	1%	23%	56%	2%	0%
Pan Pacific Park	31%	0%	30%	6%	33%	0%
Panorama City Recreation Center	21%	0%	36%	13%	30%	0%
Parthenia Park	47%	0%	30%	5%	18%	0%
Pasko Park	43%	10%	12%	35%	0%	0%
Patton St Pocket Park	31%	1%	4%	3%	62%	0%
Pecan Recreation Center	14%	0%	43%	5%	38%	0%
Peck Park	51%	1%	33%	2%	13%	0%

DRAFT

Park	Tree Canopy	Medium Vegetation	Low Vegetation	Bare Earth	Impervious Surface	Water
Penmar Golf Course	32%	0%	60%	5%	3%	0%
Penmar Recreation Center	24%	0%	37%	18%	22%	0%
Pershing Square	23%	2%	2%	3%	70%	0%
Pico Union Park	44%	0%	8%	0%	49%	0%
Pilson Property	47%	26%	26%	1%	0%	0%
Poinsettia Recreation Center	21%	0%	29%	9%	40%	0%
Point Fermin Park	16%	7%	44%	26%	6%	0%
Porter Ranch Park	39%	2%	39%	12%	7%	0%
Porter Ranch-Sesnon Property	17%	1%	30%	44%	8%	0%
Porter Ridge Park	26%	1%	50%	21%	2%	0%
Prospect Park	44%	0%	50%	0%	6%	0%
Pueblo del Rio Recreation Center	2%	0%	12%	0%	86%	0%
Queen Anne Recreation Center	21%	0%	33%	10%	36%	0%
Ralph C Daniels Field Sports Center	1%	0%	45%	5%	49%	0%
Ramona Gardens Park	23%	0%	37%	0%	40%	0%
Ramona Gardens Recreation Center	30%	0%	33%	4%	33%	0%
Ramona Hall Community Center	21%	0%	9%	0%	70%	0%
Rancho Cienega Sports Complex	14%	0%	23%	10%	52%	0%
Rancho Park Golf Course	28%	0%	60%	2%	10%	0%
Rena Park	61%	0%	30%	0%	9%	0%
Reseda Park	24%	0%	31%	20%	26%	0%
Reseda Skate Facility	9%	0%	18%	27%	47%	0%
Reynier Park	35%	0%	45%	0%	20%	0%
Rhodes Avenue Park	28%	0%	61%	10%	1%	0%
Richard Alatorre Park	73%	1%	21%	1%	4%	0%
Richardson Family Park	42%	0%	3%	0%	55%	0%

DRAFT

Park	Tree Canopy	Medium Vegetation	Low Vegetation	Bare Earth	Impervious Surface	Water
Rinaldi Park	11%	0%	53%	17%	19%	0%
Rio de Los Angeles State Park	27%	1%	37%	10%	24%	0%
Ritchie Valens Recreation Center	20%	0%	47%	12%	20%	0%
Rivas Canyon Park	45%	50%	3%	2%	0%	0%
Riverside Park Expansion	56%	2%	35%	2%	5%	0%
Robert F Kennedy Inspiration Memorial Park	19%	0%	31%	0%	49%	0%
Robert L Burns Park	60%	0%	20%	3%	18%	0%
Robertson Recreation Center	37%	0%	1%	3%	60%	0%
Rockwood Community Park	52%	0%	15%	0%	33%	0%
Roger W Jessup Park	44%	0%	37%	11%	8%	0%
Rolland Curtis Park	23%	0%	0%	0%	77%	0%
Roosevelt Golf Course	41%	0%	46%	6%	7%	0%
Roosevelt High School Pool	22%	0%	4%	0%	74%	0%
Rosalind Wyman Recreation Center	28%	0%	29%	2%	41%	0%
Roscoe-Valley Circle Park	29%	12%	41%	17%	0%	0%
Rose Hill Park	47%	1%	33%	12%	7%	0%
Rose Hill Recreation Center	21%	0%	48%	11%	20%	0%
Rosecrans Recreation Center	23%	0%	33%	13%	32%	0%
Rosewood Gardens	80%	0%	0%	3%	17%	0%
Ross Snyder Recreation Center	20%	0%	11%	11%	58%	0%
Ross Valencia Community Park	64%	0%	14%	0%	22%	0%
Runnymede Park	47%	0%	33%	4%	16%	0%
Runyon Canyon Park	45%	23%	19%	11%	2%	0%
Rustic Canyon Park	49%	36%	7%	8%	0%	0%
Rustic Canyon Recreation Center	59%	0%	14%	1%	26%	0%

DRAFT

Park	Tree Canopy	Medium Vegetation	Low Vegetation	Bare Earth	Impervious Surface	Water
Saint Andrews Recreation Center	26%	0%	40%	5%	29%	0%
Saint James Park	20%	0%	60%	1%	18%	0%
San Juan Garage	3%	0%	0%	0%	97%	0%
San Julian Park	60%	0%	9%	0%	31%	0%
San Pascual Park	21%	0%	21%	4%	4%	0%
San Pedro Plaza Park	64%	1%	16%	1%	19%	0%
San Pedro Welcome Park	36%	0%	20%	4%	40%	0%
San Vicente Mountain Park	46%	44%	5%	5%	0%	0%
Santa Ynez Canyon Park	53%	21%	19%	7%	1%	0%
Sean Brown Park	50%	0%	39%	3%	8%	0%
Seily Rodriguez Park	9%	0%	9%	4%	79%	0%
Selma Park	42%	3%	8%	0%	48%	0%
Seoul International Park	23%	0%	37%	7%	32%	0%
Sepulveda Basin Off-Leash Dog Park	26%	0%	24%	49%	2%	0%
Sepulveda Basin Recreation Area	18%	0%	47%	25%	9%	1%
Sepulveda Basin Wildlife Reserve	21%	1%	56%	14%	3%	5%
Sepulveda Garden Center	42%	1%	16%	19%	22%	0%
Sepulveda Recreation Center	22%	0%	25%	19%	35%	0%
Serrania Avenue Park	31%	19%	36%	9%	5%	0%
Shadow Ranch Park	39%	0%	28%	18%	16%	0%
Shatto Recreation Center	24%	0%	31%	6%	40%	0%
Sheldon-Arleta Park	3%	1%	75%	14%	7%	0%
Sherman Oaks Castle Park	34%	1%	14%	0%	51%	0%
Silver Lake Dog Park	16%	0%	0%	64%	19%	0%
Silver Lake Meadows Park	6%	6%	74%	13%	1%	0%
Silver Lake Recreation Center	40%	0%	16%	24%	20%	0%

DRAFT

Park	Tree Canopy	Medium Vegetation	Low Vegetation	Bare Earth	Impervious Surface	Water
South Broadway Pocket Park	39%	0%	5%	11%	45%	0%
South East Valley Roller & Skateboard Park	22%	4%	5%	29%	40%	0%
South LA Wetlands Park	23%	1%	18%	8%	48%	3%
South Los Angeles Sports Activity Center	5%	0%	7%	0%	87%	0%
South Palos Verdes Street Park	58%	0%	4%	0%	37%	0%
South Park Recreation Center	16%	0%	35%	6%	43%	0%
South Seas House Park	34%	0%	37%	0%	29%	0%
South Victoria Avenue Park	7%	0%	9%	0%	83%	0%
South Weddington Park	37%	0%	53%	2%	7%	0%
Spring Street Park	11%	0%	27%	0%	62%	0%
State Street Recreation Center	17%	0%	47%	8%	28%	0%
Steers Property	0%	0%	0%	0%	0%	0%
Stetson Ranch Park	20%	2%	45%	31%	2%	0%
Stonehurst Recreation Center	25%	0%	46%	16%	13%	0%
Stoner Recreation Center	22%	0%	27%	9%	42%	0%
Stoney Point Park	33%	16%	10%	23%	18%	0%
Strathern Park - North	8%	0%	46%	24%	22%	0%
Strathern Park, West	38%	0%	19%	29%	14%	0%
Studio City Mini-Park	14%	0%	3%	0%	83%	0%
Studio City Recreation Center	26%	0%	36%	13%	25%	0%
Sullivan Canyon Park	48%	47%	3%	2%	0%	0%
Sun Valley Park	27%	0%	42%	11%	20%	0%
Sunland Park	45%	1%	19%	12%	23%	0%
Sunnynook River Park	37%	8%	5%	21%	29%	0%
Sycamore Grove Park	43%	0%	34%	4%	19%	0%

DRAFT

Park	Tree Canopy	Medium Vegetation	Low Vegetation	Bare Earth	Impervious Surface	Water
Sylmar Recreation Center	16%	0%	47%	7%	29%	0%
Tarzana Recreation Center	16%	0%	41%	8%	35%	0%
Taxco Trails Park	33%	0%	56%	6%	5%	0%
Teatro Frida Kahlo Theatre - Parkview Photo Center	35%	0%	8%	0%	57%	0%
Teichman Family Magnolia Park	26%	1%	11%	6%	56%	0%
Telfair Park	11%	0%	72%	9%	8%	0%
Temescal Canyon Park	58%	2%	33%	6%	2%	0%
Temescal Ridge Trailhead	42%	11%	16%	9%	22%	0%
Tiara Street Park	17%	0%	26%	7%	50%	0%
Titmouse Park	82%	0%	0%	1%	17%	0%
Toberman Recreation Center	17%	0%	44%	7%	32%	0%
Tobias Avenue Park	45%	0%	16%	4%	35%	0%
Tommy Lasorda's Field of Dreams	24%	1%	51%	12%	13%	0%
Trask Triangle Park	59%	0%	38%	0%	3%	0%
Travel Town Museum	35%	0%	9%	7%	48%	0%
Triangle Park	11%	0%	0%	0%	89%	0%
Trinity Recreation Center	19%	0%	30%	1%	50%	0%
Tujunga Greenbelt	52%	0%	34%	7%	8%	0%
Tujunga Infiltration Galleries	35%	12%	18%	30%	5%	0%
Unidad Park	37%	1%	16%	6%	40%	0%
Valencia Triangle	3%	0%	0%	0%	97%	0%
Valley Glen Community Park	24%	0%	51%	15%	10%	0%
Valley Plaza Park	21%	0%	35%	20%	25%	0%
Valley Village Park	44%	0%	47%	4%	5%	0%
Van Ness Recreation Center	13%	0%	36%	11%	41%	0%

DRAFT

Park	Tree Canopy	Medium Vegetation	Low Vegetation	Bare Earth	Impervious Surface	Water
Van Norman Lakes Reservoir	13%	0%	40%	23%	25%	0%
Van Nuys Multipurpose Center	8%	0%	5%	0%	87%	0%
Van Nuys Recreation Center	12%	1%	16%	3%	68%	0%
Van Nuys Sherman Oaks Recreation Center	17%	0%	41%	13%	29%	0%
Vanalden Park	22%	0%	51%	9%	18%	0%
Venice Beach	1%	0%	2%	74%	21%	0%
Venice High School Pool	18%	0%	16%	0%	66%	0%
Venice of America Centennial Park	51%	2%	24%	4%	19%	0%
Verdugo Hills Pool	7%	0%	2%	0%	91%	0%
Verdugo Mountain Park	24%	18%	30%	28%	0%	0%
Vermont Gage Park	15%	0%	9%	0%	75%	1%
Vermont Miracle Park	11%	0%	8%	0%	81%	0%
Vermont Parkway	46%	0%	45%	1%	8%	0%
Vermont Square Park	19%	0%	57%	1%	23%	0%
Vernon Branch Library Pocket Park	24%	1%	2%	1%	74%	0%
Via Dolce Park	6%	10%	11%	30%	43%	0%
Victory-Vineland Recreation Center	11%	0%	52%	5%	32%	0%
Viking Park	26%	11%	53%	7%	4%	0%
Villa Cabrini Park	40%	10%	26%	23%	1%	0%
Vineyard Recreation Center	25%	0%	20%	0%	55%	0%
Vista Del Mar Park	10%	0%	80%	1%	8%	0%
Vista Hermosa Soccer Field	9%	0%	16%	0%	75%	0%
Wabash Recreation Center	13%	0%	33%	8%	47%	0%
Wall Street Community Park	31%	0%	14%	0%	56%	0%
Warner Ranch Park	30%	0%	59%	5%	7%	0%

DRAFT

Park	Tree Canopy	Medium Vegetation	Low Vegetation	Bare Earth	Impervious Surface	Water
Washington Irving Pocket Park	32%	0%	39%	0%	29%	0%
Wattles Garden Park	47%	29%	16%	6%	2%	0%
Watts Community Park	42%	0%	8%	1%	49%	0%
Watts Cultural Crescent	13%	0%	41%	7%	39%	0%
Watts Senior Citizen Center	19%	1%	24%	0%	56%	0%
West Hills Sport Center	11%	0%	56%	18%	15%	0%
West Lakeside Street Park	6%	0%	3%	88%	2%	0%
Westchester Recreation Center	14%	0%	46%	11%	28%	0%
Western And Gage Community Park	9%	0%	25%	21%	46%	0%
Westminster Dog Park	28%	0%	5%	65%	2%	0%
Westminster Park	38%	0%	18%	26%	18%	0%
Westside Neighborhood Park	31%	1%	30%	22%	16%	0%
Westwood Gardens Park	32%	3%	14%	5%	46%	0%
Westwood Recreation Center	21%	0%	37%	4%	38%	0%
White Point Park Nature Preserve	11%	19%	61%	4%	4%	0%
Whitnall Highway Off-Leash Dog Park	4%	0%	10%	83%	2%	0%
Whitnall Highway Park	11%	0%	31%	47%	10%	0%
Whitsett Sports Field	13%	0%	23%	29%	36%	0%
Wilacre Park	41%	9%	43%	6%	1%	0%
Wilbur-Tampa Park	41%	0%	45%	9%	5%	0%
Will Rogers State Beach	1%	0%	7%	44%	32%	0%
William Nickerson Gardens Recreation Center	3%	0%	47%	11%	38%	0%
Wilmington Recreation Center	22%	0%	33%	8%	37%	0%
Wilmington Town Square	9%	0%	0%	1%	89%	0%
Wilmington Veterans Park	25%	1%	36%	14%	25%	0%

DRAFT

Park	Tree Canopy	Medium Vegetation	Low Vegetation	Bare Earth	Impervious Surface	Water
Wilson Golf Course	30%	0%	55%	8%	7%	0%
Winnetka Recreation Center	26%	0%	32%	25%	16%	0%
Woodbine Park	56%	0%	13%	0%	30%	0%
Woodbridge Park	51%	0%	38%	4%	8%	0%
Woodland Hills Recreation Center	22%	0%	40%	20%	19%	0%
Woodley Avenue Park	21%	0%	49%	19%	11%	0%
Woodley Lakes Golf Course	13%	0%	46%	34%	7%	0%
Woodside Triangle	30%	2%	0%	0%	67%	0%
York Blvd Pocket Park	14%	3%	1%	2%	79%	0%
Yosemite Recreation Center	32%	0%	27%	9%	31%	0%
Yucca Community Center	11%	0%	6%	0%	83%	0%
Zelzah Park	38%	0%	55%	3%	4%	0%

DRAFT

Figure L.6 - Tree Canopy Distribution by General Plan Land Use Category

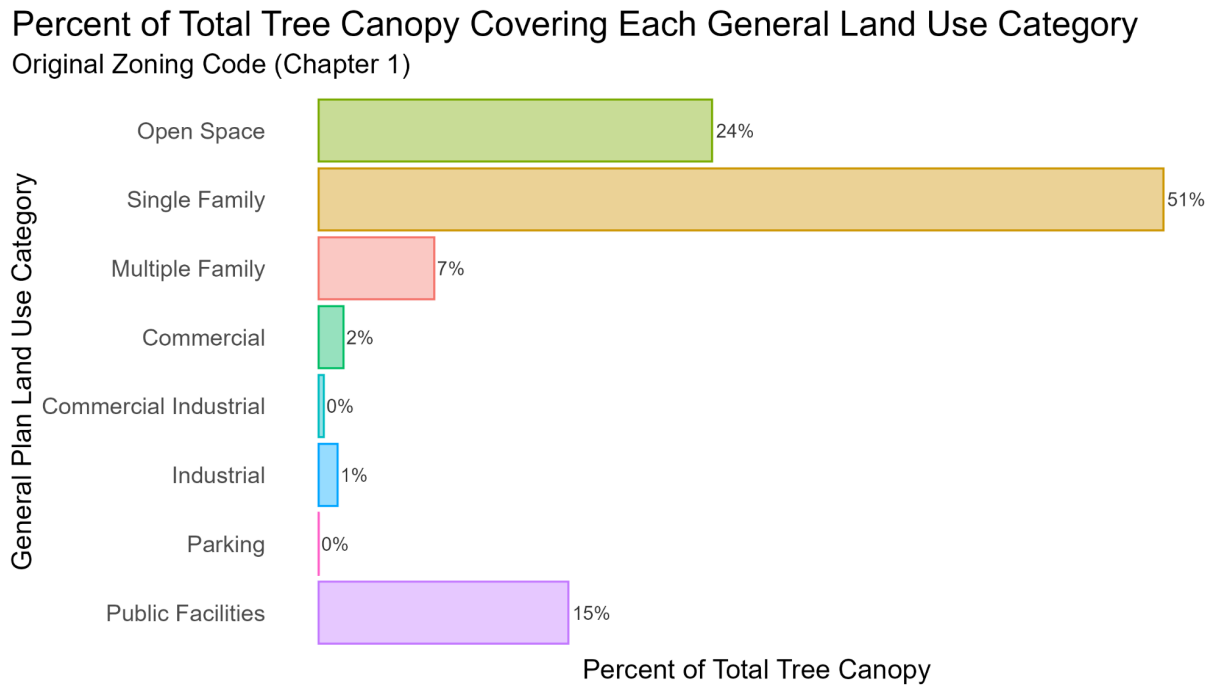
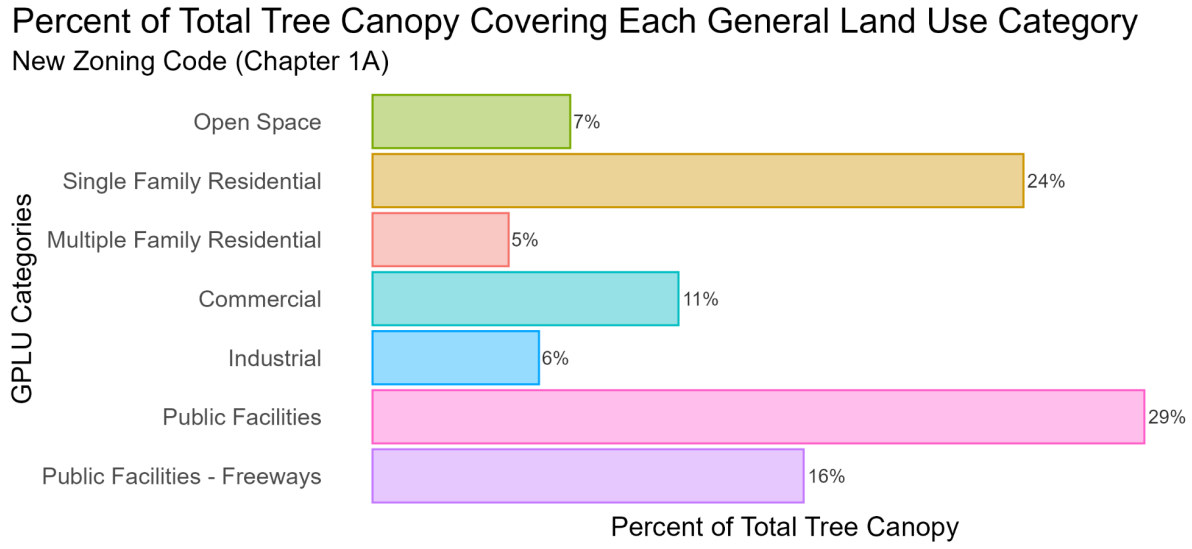


Figure L.7 - Tree Canopy Distribution by General Plan Land Use Category



Appendix M - City Managed Tree Inventory Stability Metrics

The data utilized for this stability metrics analysis was accessed on September 4, 2024 from the UFD and RAP Forestry inventory systems.

Genus and Species Diversity

These metrics consider the importance of genus and species diversity for public tree inventories, specifically for the purpose of ensuring inventory stability from a management perspective. Pests and pathogens generally infest or infect a specific or limited number of species or genera. Therefore, ensuring diversity within an inventory can limit the impacts felt if widespread infestation or infection occurs.

Historical best practices is to follow the 10-20-30 rule, which recommended limiting each species to 10% of an inventory, each genus to 20%, and each family to 30%. More recent research suggests that a better metric limits species to 5%, genus to 10%, and family to 20%.[24] This updated recommendation is based on research that assessed the impacts of recent invasive pests in the United States, such as the Emerald Ash Borer, that have dramatically impacted urban forests throughout the country. The UFMP therefore utilizes the 5-10-20 rule.

It is important to note that while genus and species diversity metrics are useful for making decisions related to City-managed trees, these metrics do have limitations when used to describe the whole urban forest. Because species data is only available for park and street trees and the vast majority of urban trees are on private property, the genus or species percentages for a given area do not accurately represent the diversity of the whole urban forest.

When assessing the genus and species percentages by Council District, seven genera were over the 10% threshold and eleven species were over the 5% threshold in at least one district (see Figures M.1 and M.2). When making species decisions for future planting projects for street and park trees, City departments responsible should take into consideration the genus and species that are overrepresented along with other criteria. For example, in Council District 9 consideration should be given to limiting the planting of all trees in the fig (*Ficus*) genus, with extra consideration given to the weeping fig (*Ficus bejamina*), while in Council Districts 5 and 14 consideration only needs to be given to the Indian laurel fig (*Ficus microcarpa*).

[24] John Ball, Sarah Mason, Aaron Kiesz, Dan McCormick, and Craig Brown. Arboriculture & Urban Forestry (AUF) September 2007, 33 (5) 350-359; DOI: https://doi.org/10.48044/jauf.2007.040

DRAFT

The coast live oak (*Quercus agrifolia*) is currently the only species endemic to the region that is overrepresented in one or more Council Districts. However, it is important to note that the coast live oak is a keystone species for the Los Angeles region, providing critical habitat and biodiversity benefits. It is also important to note that oaks and other endemic tree species did not naturally grow equally throughout the City's Council District areas. Trees tended to grow in woodland clusters in hillsides and along riparian areas, with chaparral and other plants growing more broadly throughout the basin. Because of this, it may be appropriate for coast live oak and other native tree species to exceed the 5% recommendation. Ideally, this would be paired with committed resources to ensure City departments are able to promptly address any pest or disease issues that impact these species.

Figure M.1 - Council Districts with Overrepresented Genus

Council Districts Over Recommended Threshold 10%)		
Genus	**Total Council Districts**	**List of Council Districts**
Washingtonia	3	CD 8, CD 10, and CD 13
Lagerstroemia	3	CD 3, CD 7, and CD 12
Ficus	1	CD 9
Quercus	1	CD 4
Platanus	1	CD 5
Pinus	1	CD 12
Magnolia	1	CD 11

Figure M.2 - Council Districts with Overrepresented Species

Council Districts Over Recommended Threshold (5%)		
Species	**Total Council Districts**	**List of Council Districts**
Washingtonia robusta	9	CD 1, CD 6, CD 8, CD 9, CD 10, CD 11, CD 13, CD 14, and CD 15
Lagerstroemia indica	7	CD 1, CD 2, CD 3, CD 6, CD 7, CD 12, and CD 14

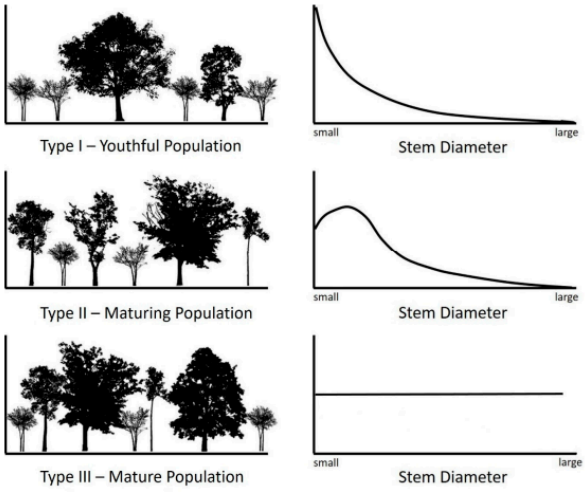
Species	Total Council Districts	List of Council Districts
Magnolia grandiflora	5	CD 5, CD 8, CD 10, CD 11, and CD 13
Jacaranda mimosifolia	4	CD 5, CD 10, CD 11, and CD 13
Quercus agrifolia	3	CD 1, CD 4, and CD 12
Ficus microcarpa	3	CD 5, CD 9, and CD 14
Liquidambar styraciflua	2	CD 2 and CD 6
Syagrus romanzoffiana	2	CD 2 and CD 7
Platanus x hispanica	1	CD 5
Pinus canariensis	1	CD 12
Ficus benjamina	1	CD 9

Structural Distribution of Trunk Diameter

Structural diversity assesses the percentage of trees in different trunk diameter categories based on the diameter at standard height (DSH), or 4.5 feet above grade. This metric is often used as a proxy for tree age, as data on planting dates is often not available for older trees.

Research by McPherson and Rowntree[25] looked at 22 cities in California and identified three prominent distributions, including:

- Type I (or youthful) distributions have a high proportion of young, small trees with the percent of trees decreasing as the DSH increases
- Type II (or maturing) distributions have a low proportion of trees in the smallest DSH categories but also a low proportion of trees in the largest DSH categories
- Type III (or mature) distributions a roughly even number of trees at all sizes

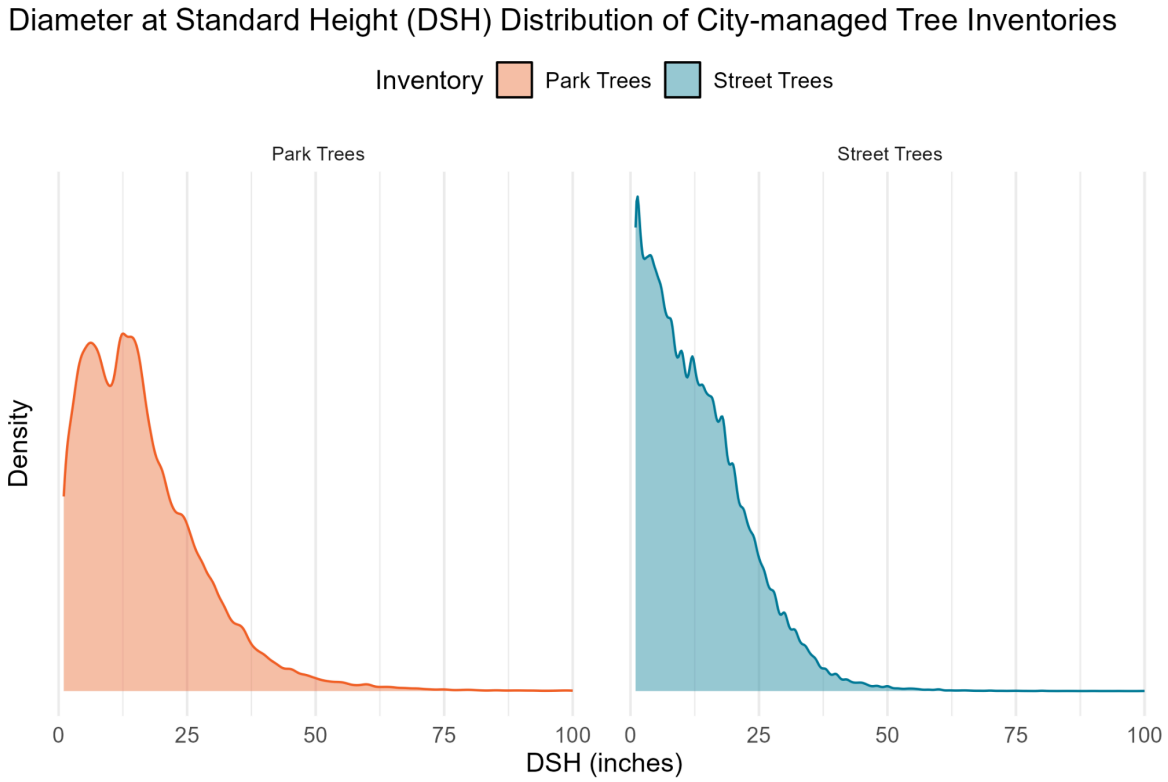


[25] McPherson, E.G.; Rowntree, R.A. Using Structural Measures to Compare Twenty-Two U.S. Street Tree Populations. Landscape Journal, March 1989, 8 (1), 13–23. DOI: https://doi.org/10.3368/lj.8.1.13.

DRAFT

For the City, the park tree inventory most closely resembles the Type II (maturing) distribution while the street tree inventory most closely resembles the Type I (youthful) distribution (see Figure M.3).

Figure M.3 - Structural Distribution of Street and Park Tree Inventories



While there is no recommendation for the optimal distribution type, it is recommended that this metric is tracked and compared over time for each City department responsible for managing tree assets. Trends or changes in the distribution type can support an understanding of the resource allocations needed in the coming years.

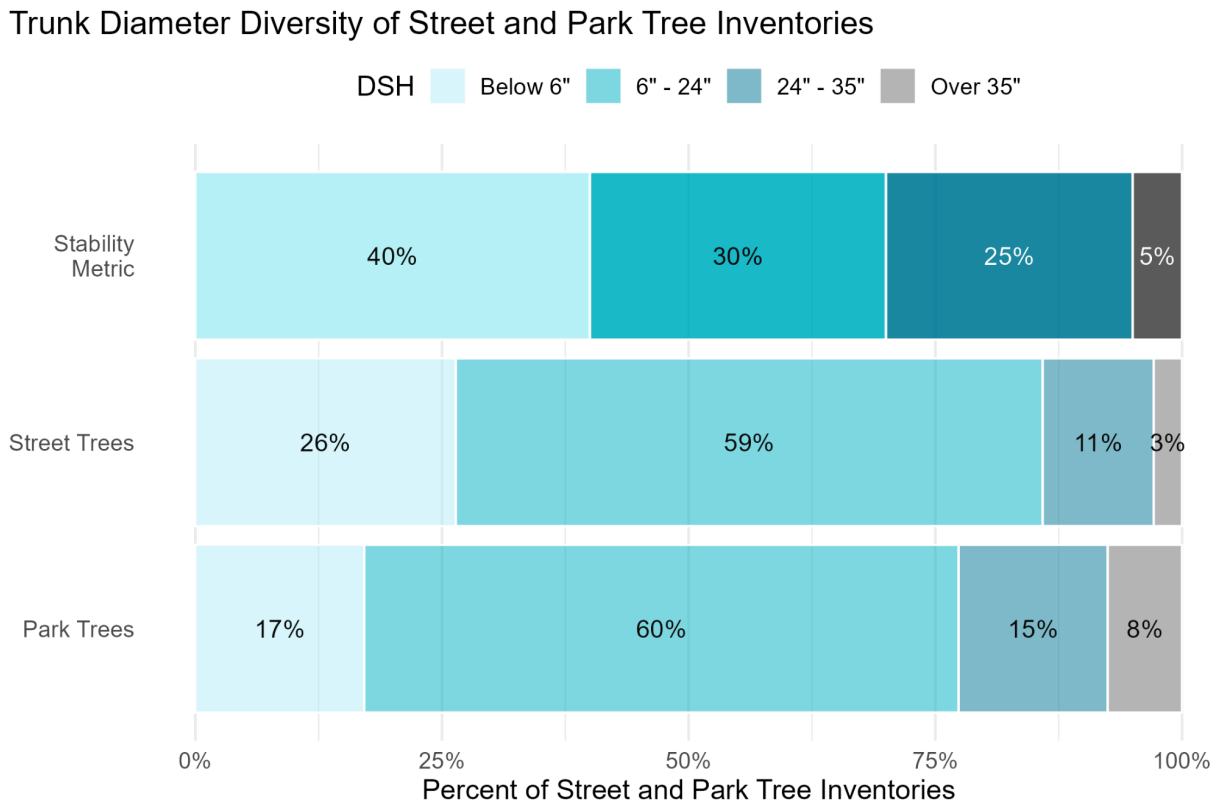
Academic research provides different targets that could be used to optimize the City-managed inventory groups. Setting a metric for DSH distribution must be considered in tangent with other City goals as the ideal distribution must be based on what the City aims to optimize. To that end, the UFMP proposes utilizing the target recommended by Millward and Sabir, which recent research suggests is best "suited to maximising ecosystem service, while also providing population stability."[26] Millward and Sabir recommend an inventory with tree assets distributed such that 40% are below 15 cm (6 in), 30% are between 15 and 60 cm (6 and 24 in), 25% are between 60 and 90 cm (24 and

[26] Morgenroth, Justin & Nowak, David & Koeser, Andrew. DBH Distributions in America's Urban Forests—An Overview of Structural Diversity. *Forests*. 2020, 11. DOI: https://doi.org/10.3390/f11020135.

35 in), and 5% are over 90 cm (35 in).[27] This target should be assessed at a citywide scale with the City-managed inventories separated by tree asset type (ex: park, street).

Figure M.4 compares street and park tree inventories to the Millward and Sabir recommended distribution. For both street and park tree inventories, trees in the under 6 inch and 24-35 inch categories are underrepresented and the 6-24 inch category is overrepresented. This points to a need for the City to support robust planting programs for both asset types, with an emphasis both on sufficient levels of planting and also on selecting species that are large stature, de canopy providers.

Figure M.4 - Structural Distribution of Street and Park Tree Inventories Compared to Stability Metric Recommendation



Health Condition Distribution

There is no specific research-based metric for the recommended distribution of health conditions within urban tree inventories. However, this data is important for City departments that manage tree assets to consider as it provides information that can

[27] Millward, A.A.; Sabir, S. Structure of a forested urban park: Implications for strategic management. *Journal of Environmental Management*. 2010, 91, 11, 2215–2224. DOI: https://doi.org/10.1016/j.jenvman.2010.06.006.

estimate resource needs for addressing trees identified as dead or critical that need or will likely need removal. The trees identified as being in poor condition are trees that, with additional resources to provide care and improve health, could provide significant canopy increase for the urban forest.

Relative Performance Index of Health Condition

A species' Relative Performance Index (RPI) provides information on how a species is performing compared to the overall health performance of the full inventory. Trees with a health condition rating of excellent, very good, or good are considered to be in "good" condition. RPI is calculated by dividing the percent of trees of a single species in "good" condition by the percent of trees in the full inventory in "good" condition. Species with an RPI higher than 1 are performing better than the inventory as a whole, and therefore providing greater benefits than species with an RPI below 1. Species with an RPI below 1 may also require more maintenance or more costly maintenance due to their underperformance.

The UFMP recommends conducting RPI assessments at the Council District level with the City-managed inventories separated by tree asset type (ex: park, street) due to variation in climate conditions across the City that impact species performance. While RPI should not be used unilaterally to exclude species from planting palettes, consideration should be given to planting species with an RPI under 1 sparingly and thoughtfully. This is especially true for species with low RPI and also high rates of occurrence within the area's inventory. As with the genus and species metrics, native species should still be considered for planting as they provide critical habitat and biodiversity benefits not reflected in the RPI calculations.

DRAFT

Appendix N - Heritage Tree Program

DRAFT

City of Los Angeles

Park Related Urban Forestry Assessments

2024

Draft Report

DAVEY Resource Group

Classification of Heritage Trees and Preservation Strategies

Introduction

Heritage trees, as defined by existing programs across the U.S., are mature trees that receive special recognition and protection due to their ecological, cultural, and/or historic significance. The designation of heritage tree status acknowledges the outsized benefits that these trees provide to their communities and seeks to protect them from damage, removal, and neglect. Typically, protections are either reinforced through community outreach exercises including education, mapping, and storytelling, or required by policy or ordinance.

PURPOSE

The City of Los Angeles' Department of Recreation and Parks, Forestry Division (RAP) recognizes that parks and open space in Los Angeles play a special role in providing space for large and special trees that may not exist elsewhere in the urban landscape. As part of an effort to update and strengthen its Heritage Tree program, RAP contracted with Davey Resource Group, Inc. (DRG) to evaluate other municipal heritage tree programs, develop more clearly defined enrollment criteria for RAP's Heritage Trees, suggest additional protections to extend the lifespans of its most valuable trees, and to aid in future decision making and a consistent and defined approach to planning around these trees.

HISTORY OF HERITAGE TREES IN PARKS

RAP has an existing Heritage Tree program that includes 2,816 trees (2% of total park tree inventory), with representatives from 285 species (53% of all Parks species). Heritage Trees, as currently defined by RAP, are individual trees of any size or species that have historical, commemorative, or horticultural significance.

Of note, three of the top ten species (Canary Island date palm, olive, and Mexican fan palm) are designated by the California Invasive Plants Council as invasive species with limited to moderate ecological impacts. In total, 16 species within the RAP Heritage Tree inventory were noted by Cal-IPC to be invasive species, for a total of 314 trees (11% of all existing Heritage Trees).

Table 1. Top ten species of Heritage Trees under RAP's existing program.

Common Name	Botanical Name	Count
Canary Island date palm	*Phoenix canariensis*	118
Moreton bay fig	*Ficus macrophylla*	118
Holly oak	*Quercus ilex*	104
Montezuma cypress	*Taxodium mucronatum*	101
Coast redwood	*Sequoia sempervirens*	93
Caucho microcarpa	*Ficus microcarpa*	79
Live oak	*Quercus virginiana*	64
Olive	*Olea europaea*	62
Mexican fan palm	*Washingtonia robusta*	55
Tipa	*Tipuana tipu*	52

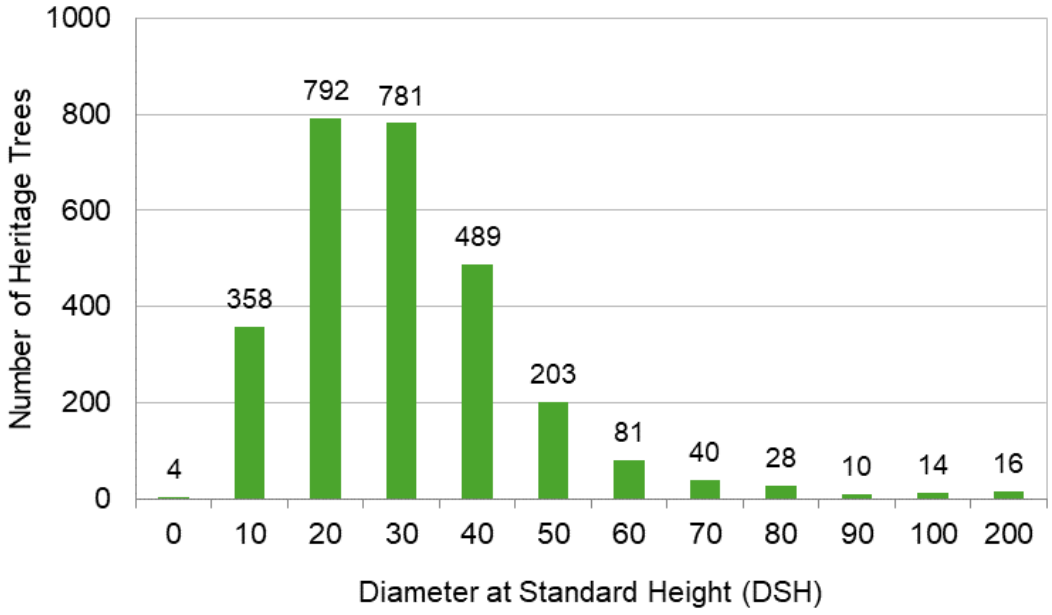


Figure 1. Size distribution of existing Heritage Trees.

Policies & Practices

As they are currently described in RAP's *City of Los Angeles Urban Forest Manual, 2023 Update* (*Urban Forest Manual*), Heritage Trees are trees of any size or species that are designated by the General Manager of RAP as having historical, commemorative, or horticultural significance. Once designated, RAP approval is required before a Heritage Tree is altered, relocated, or removed. While protected by RAP's Tree Preservation Policy (detailed in RAP's *Urban Forest Manual,* Appendix A, "RAP Tree Preservation Policy"), Heritage Trees are not currently protected by LA City Ordinances.

Preservation

The RAP Tree Preservation Policy currently regulates protection of four categories of trees: (1) Trees Protected by LA City Ordinances, (2) Heritage Trees, (3) Special Habitat Value Trees, and (4) all other Common Park Trees. Trees may be protected under more than one category. Pruning of Heritage Trees must take place under the supervision of an International Society of Arboriculture (ISA) Certified Arborist® within RAP Forestry staff.

Removal of a Heritage Tree requires approval by the RAP General Manager. Removal is considered for Heritage Trees that are dead or diseased, in conflict with infrastructure or park development goals, or for other reasons as determined by RAP's Principal Forester. The regular approval process can be bypassed in instances where the tree poses an immediate hazard.

GOALS FOR CLASSIFICATION

RAP's goals for a revised Heritage Tree program are to more clearly define enrollment criteria and to strengthen preservation and protection of designated trees. Informed by other U.S. programs for heritage or significant trees, RAP wants to update its program to identify trees for potential inclusion in the program based on species and size criteria while preserving the flexibility to include trees that are significant for other reasons. RAP would also like to create

mechanisms for enhanced protection from development and identify preservation strategies to reduce risk and extend the life of trees.

Heritage Tree Programs Review

SUMMARY OF KEY FINDINGS

To develop recommendations for the City of Los Angeles' Department of Recreation and Parks Forestry Division as it explores the creation of a Heritage Tree program, DRG reviewed existing programs for heritage or landmark trees of 24 municipalities. Cities were identified based on internet searches for "heritage tree", "landmark tree", "remarkable tree", and "significant tree" terms along with "program" or "ordinance"; they were also identified by the City of Los Angeles and from references contained within resources about heritage tree programs.

In general, existing heritage tree programs can be characterized into two basic structures: voluntary programs, where trees are nominated for heritage status based on ecologic, cultural, and/or historic significance; and mandatory programs, where trees are automatically enrolled into a heritage tree program once they reach a certain size. Several cities combine aspects of voluntary and mandatory programs.

Evaluated Heritage Tree Programs

- Austin, TX
- Charlotte, NC
- Corvallis, OR
- Fernandina Beach, FL
- Fort Worth, TX
- Glenview, IL
- Lakewood, WA
- Manitou Springs, CO
- Menlo Park, CA
- Nashville, TN
- Palo Alto, CA
- Pittsburgh, PA
- Portland, OR
- Sacramento, CA
- Salem, OR
- San Luis Obispo, CA
- San Mateo, CA
- Santa Cruz, CA
- Seattle, WA
- Sonoma, CA
- Telluride, CO
- Washington, DC
- Westmont, IL
- Whitemarsh, PA

Voluntary Heritage Tree Programs

Thirteen cities with voluntary heritage tree programs were reviewed. Voluntary programs are those in which public and/or privately owned trees may be nominated for recognition as heritage trees; trees are not automatically enrolled. All of the reviewed programs applied to trees on public land, and all programs allowed for nomination of trees based on local landmark status or cultural/historical significance in addition to, or instead of, size and species constraints. None of the programs applied to park lands only.

Seven of 13 cities' heritage tree programs restrict the removal of designated trees. Two cities (Telluride and Seattle) have city ordinances with detailed restrictions governing heritage trees once designated.

Seven programs map or describe the trees for the public; of these, four cities share heritage tree characteristics via an interactive map such as an ESRI StoryMap.

Voluntary Programs Summary

- Nomination criteria include social factors, such as cultural or historical significance or local landmark (100% of programs)
- Mapped locations shared with the public (58%)
- Restricts removal (50%)
- Requires ISA Certified Arborist® assessment before or after designation (42%)

Mandatory Heritage Tree Programs

Thirteen municipal ordinances were reviewed in which trees of a certain size are automatically enrolled in a heritage tree program, thereby protecting the tree from removal or significant damage. Seven of these cities additionally permit designation of a heritage tree based on cultural or historic significance. None of the programs reviewed applied to park lands only.

In one city (Sonoma, CA), the city assumes maintenance and removal responsibility for heritage trees, regardless of location. In the other twelve cities, a permit is required to remove a heritage tree. Most of these cities waive the permit requirement if the tree is hazardous. Eleven cities require mitigation planting and/or a fee-in-lieu for heritage trees that are removed.

Mandatory Programs Summary

- Prohibits removal and damage (100% of programs reviewed)
- Minimum size requirement (100% of programs)
    - Median size = 15 inches DSH (range 8–50 inches DSH)
- Permit required for removal (91%)
    - Permit waived if tree is hazardous (64%)
- Mitigation required (82%)
- Planting required: varies in number of stems, by inch, etc. (73%)
    - Sometimes there are species requirements (45%)
- Fee-in-lieu (82%): varies from $250 flat fee to value calculated from basal area
- Species requirements for heritage tree designation (46%)
- Fee for removal (27%; separate from mitigation requirements)
- Relocation required (9%)

Heritage Tree Status Classification

Recommendations for an updated Heritage Tree program for RAP include guidelines for automatic enrollment of trees based on their size and species, provisions for elective enrollment of trees based on other criteria, and preservation strategies to reduce risk and extend the life of trees.

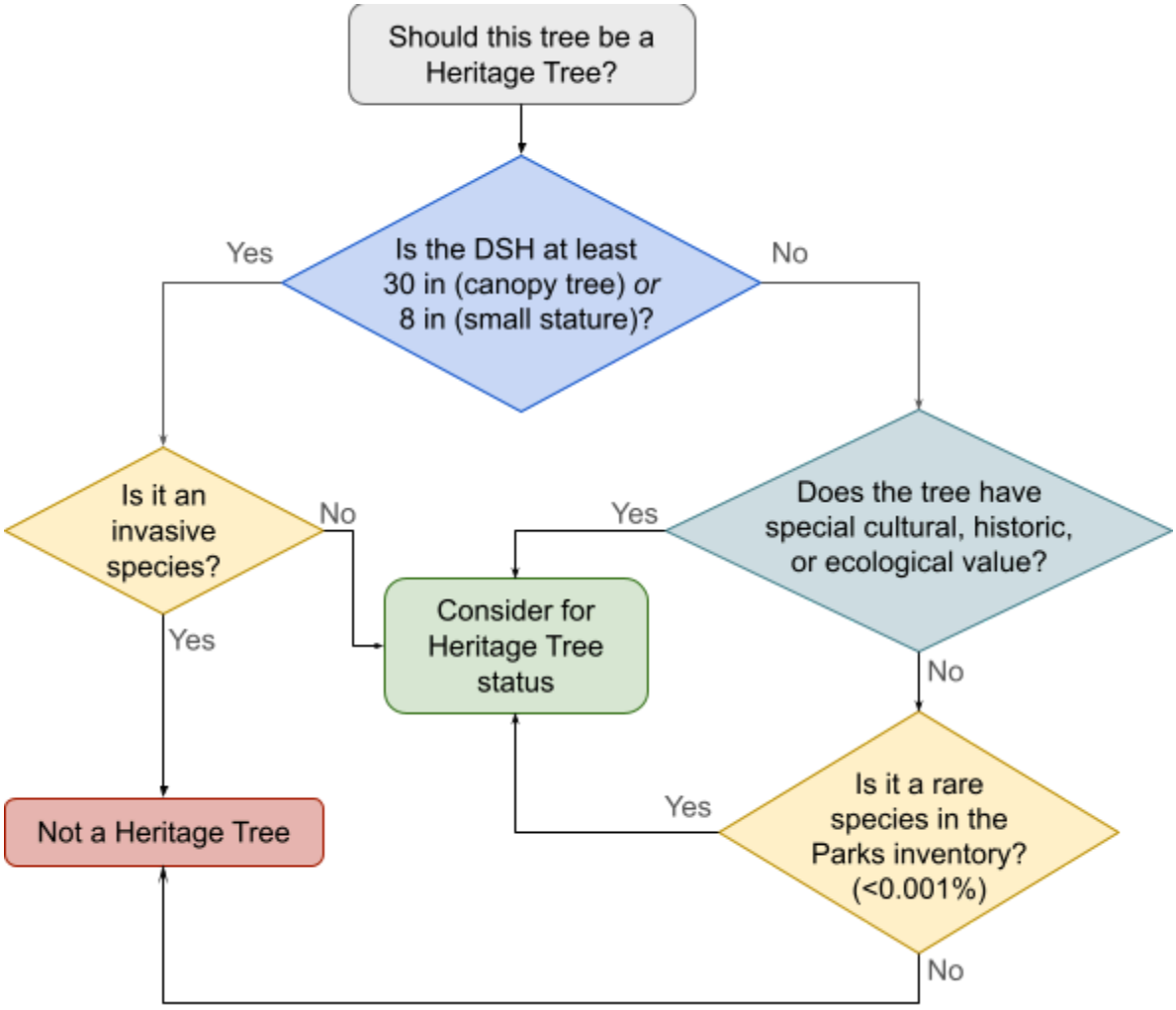


Figure 2. Decision making flowchart for RAP Heritage Trees.

SIZE AND SPECIES RECOMMENDATIONS

DRG recommends a minimum size of 30 inches diameter at standard height (DSH) for most canopy tree species and 8 inches DSH for small-stature trees. This recommendation is based on examples from other cities and consideration for species that are commonly found in Los Angeles parks and green space. A higher size threshold may be appropriate for individuals or species of trees with growth forms that result in trunk swelling, such as multistem trees.

In total, 13,847 RAP trees are at least 30 inches DSH in size and are not listed as invasive species by the California Invasive Plants Council, constituting approximately 10% of the RAP tree inventory. This number includes 2,724 coast live oaks (*Quercus agrifolia*), for which a larger threshold diameter may be necessary; but it does not include small-stature trees of at least 8

inches DSH. The number of large trees is inflated in the inventory due to the way that diameter information is documented—for multistem trees, RAP methods dictate that diameter is recorded as the sum of all individual stems. In practice, this means that inventory data can be useful for identifying potential Heritage Trees based on size, but additional follow-up is needed to determine whether trees should receive Heritage Tree designation.

DRG recommends excluding tree species that are invasive, particularly those with high potential for adverse ecological impacts. One reference for invasive species status is the California Invasive Plant Council (Cal-IPC). Other sources may be considered, and exceptions may be made—for example, not all Cal-IPC species with state-level invasive status may be locally invasive.

Trees that may be notable for their ecological significance—including species that are locally rare or those that might be difficult or impossible to replace—may be considered for Heritage Tree status regardless of size. An example noted by RAP is its two American chestnut trees (*Castanea dentata*), a once-dominant canopy tree from the eastern U.S. that has been extirpated from its native range due to chestnut blight. In its consideration for what constitutes "rare", RAP should note that most of the tree species within its inventory are represented by 138 specimens or fewer (≤0.1% of the total RAP inventory), making such species very common—424 of Park's 537 unique species, or 79% of Park's tree species, fit this criterion. A threshold of 0.01% (14 specimens) or even 0.001% (1 specimen) may be more appropriate for evaluating the rarity of species.

Benefits of Heritage Trees

Mature trees provide many benefits to communities, including cleaner water, cooler and cleaner air, improved human health outcomes, increased safety, and positive effects on business and commerce. The value of some of these benefits can be quantified based on avoided costs—for example, trees that cool the air help nearby residents save on energy costs. However, most of the demonstrated benefits from trees are not currently quantifiable and many heritage tree designations are founded on preserving access to a diverse species or the emotional connection to specific trees that serve as a backdrop to community events and key historic moments.

Of the many benefits that RAP's Heritage Trees provide, the value of four benefits was quantified using i-Tree Eco, a software tool developed by the US Forest Service, Davey, and partners. The average value of these benefits per tree was calculated for existing RAP Heritage Trees and compared to both trees that meet new recommended Heritage Tree guidelines and to common (non-Heritage) trees.

Under existing RAP designation, Heritage Trees store twice as much carbon per tree as common trees. Annually, existing Heritage Trees capture 13% more carbon, 54% more stormwater runoff, and 31% more air pollutants than common RAP trees. Under recommended guidelines for the RAP Heritage Tree program, the quantifiable per-tree benefits increase two- to three-fold over that of non-Heritage Trees.

The replacement value of common and Heritage Trees was also calculated using i-Tree Eco. The replacement value of existing Heritage Trees is nearly twice that of both common trees and the average RAP per-tree replacement costs. Under recommended guidelines for the Heritage Tree program, the average replacement value of Heritage Trees jumps to $14,543, nearly three times the value of RAP non-Heritage Trees.

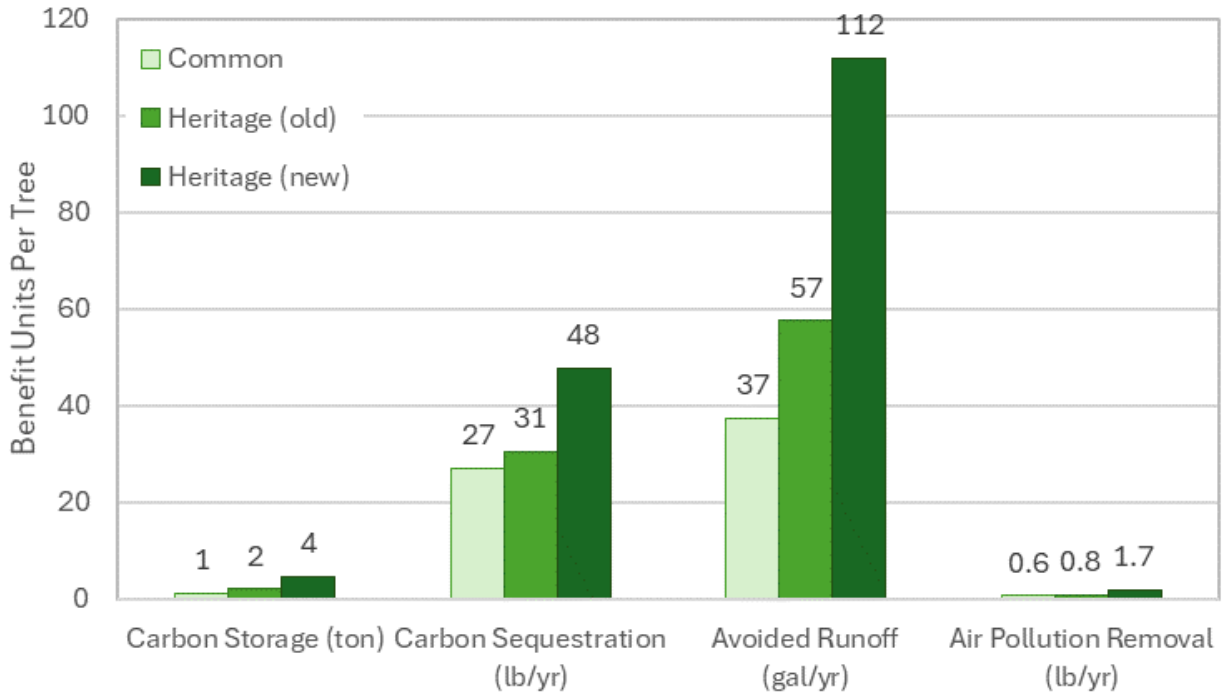


Figure 3. Select per-tree benefits of RAP common and Heritage Trees under existing (old) and proposed (new) Heritage Tree guidelines.

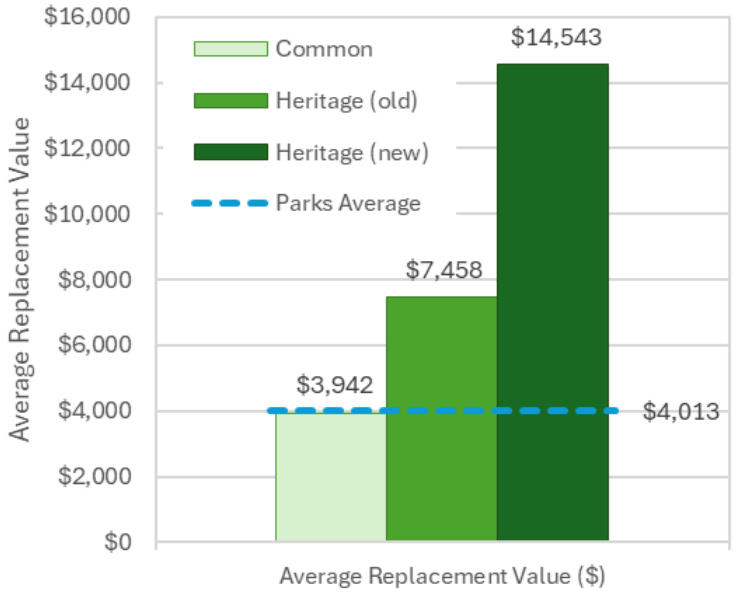


Figure 4. The average replacement value of RAP common and Heritage Trees under existing (old) and proposed (new) Heritage Tree guidelines.

Table 2. Top ten RAP species with the highest average replacement value.

Common name	Botanical name	Total Number of Trees	Number of existing Heritage Trees	Mean Value per Tree
Flooded gum eucalyptus	*Eucalyptus grandis*	2	1	$21,995
White fig	*Ficus virens*	1	1	$20,098
Hoop pine	*Araucaria cunninghamii*	1	0	$18,442
Moreton bay fig	*Ficus macrophylla*	188	118	$17,811
Corticeira-da-serra	*Erythrina falcata*	7	4	$16,966
English yew	*Taxus baccata*	3	2	$15,970
Indian banyan	*Ficus benghalensis*	2	1	$14,519
Montezuma cypress	*Taxodium mucronatum*	305	101	$14,317
Sycamore fig	*Ficus sycomorus*	1	1	$14,200
Flamegold	*Koelreuteria elegans*	3	0	$13,935

Preservation Strategies for Heritage Trees

The Assessments and potential interventions below are outside of the normal activities performed currently by RAP Forestry Division. However, due to the unique and/or high value nature of the proposed Heritage Trees, the City could consider implementing policy changes and/or providing annual funding for these types of activities to improve the health and longevity of these valuable specimens.

Priority preservation strategies are marked in this section with a tree symbol .

HERITAGE TREE INSPECTION & MONITORING

Regular inspections can catch changes in a tree's health before diseases, insects, or environmental problems become too serious to address.

Basic (Level 2) Tree Risk Assessment

It is recommended that all trees that are designated as Heritage Trees undergo a basic (Level 2) risk assessment that is conducted by a Tree Risk Assessment Qualified (TRAQ) ISA Certified Arborist®. A basic risk assessment is defined by the ISA as a visual assessment of a tree's crown, trunk, visible roots, and site conditions. It documents the current health of the tree and notes any conditions that may indicate specific interventions or an advanced (Level 3) risk assessment. A basic assessment should take place at the time of Heritage Tree designation and at regular intervals throughout a tree's lifespan.

Advanced (Level 3) Tree Risk Assessment

Advanced (Level 3) risk assessments, as defined by the ISA, are conducted by a TRAQ qualified ISA Certified Arborist® and consist of a more thorough inspection of the tree that may include climbing, drilling, exposure of roots, or sonic tomography, as well as more detailed documentation of the site. An advanced risk assessment is designed to identify tree defects that may pose a risk to people or structures under normal conditions, including decayed wood, cracks, weak or split branch unions, tree leaning, cankers, or root damage. The advanced risk assessment then determines the potential consequences of failure based on the size and weight of trees or limbs that are at risk for failure and their proximity to potential targets.

It is recommended that advanced (Level 3) risk assessments are performed on all Heritage Trees that were flagged for closer inspection during basic (Level 2) risk assessments. The advanced risk assessment will then recommend a protocol for intervention and monitoring.

Additional signs that a Heritage Tree may warrant an advanced risk assessment:

- Large branches are not producing new leaves or are showing signs of decay.
- The trunk is splitting along its length or has developed large cavities.
- Large pieces of bark are falling off a tree in which this is not normal for its species.
- The tree is causing harm to other Heritage Trees or structures nearby.
- The tree is conspicuously leaning.
- Fungus is growing on the roots near the base of the tree or along the trunk.

Nutrient Testing

As indicated by the findings of basic (Level 2) assessments, additional testing of soil and leaf may be indicated for Heritage Trees that show signs of nutrient deficiency. Nutrient testing by an ISA Certified Arborist® can determine nutrient content and soil texture and develop recommendations for targeted treatments.

Soil Moisture & Irrigation Monitoring

If a basic (Level 2) or advanced (Level 3) assessment documents soil moisture levels that are not appropriate for a Heritage Tree based on its species, size, or location, enlist an ISA Certified Arborist® to more closely evaluate soil conditions, irrigation/watering methods, and to develop a remediation plan. Possible interventions include watering more or less, altering the timing of watering, aerating the soil, using tensiometers to monitor soil moisture conditions, improving drainage, and applying mulch or organic matter. A specialized drought plan may be needed to ensure that Heritage Trees receive adequate water under drought restrictions.

HERITAGE TREE PROTECTION

Removal Prohibited

Alteration that leads to damage, relocation, or removal of Heritage Trees is prohibited unless approved by the General Manager of RAP. Removal must follow the process outlined in RAP's *Urban Forest Manual*, Appendix F, "Tree Removal Procedure".

Mitigation

Mitigation is designed to partially replace or compensate for the tree benefits that are lost due to actions that result in the damage, death, or removal of a Heritage Tree. Some aspects of the cultural, historic, or ecological value of Heritage Trees cannot be replaced; therefore, mitigation

is used as a last resort only after removal has been approved through established RAP procedure, rather than as an alternative to preserving the tree.

Mitigation requirements for Heritage Trees shall follow the rules that are established for trees and shrubs that are protected by the City's Protected Tree and Shrub Ordinance (Ordinance 186873) as detailed in RAP's *Urban Forest Manual* in Section 5.4.5, "Replacement of Removed Trees or Shrubs Protected by LA City Protected Trees Ordinance" and Appendices K, "Payment in Lieu of Planting" and L, "Recreation and Parks Department Tree Planting, Selection, and Maintenance Guidelines".

Bollards and Fencing

Temporary and permanent fencing that discourages or excludes activity under Heritage Trees can help prevent soil compaction and damage to the tree as well as reduce risk of injury to park visitors. Depending on the reasons for exclusion, bollards and fencing can be sized to extend around the perimeter of the trunk flare, the critical root zone, the tree protection zone, or beyond. Combining bollards and fencing with mulching provides additional protection to tree roots and reduces maintenance requirements within the exclusion area.

Evaluate the need for bollards or fencing around Heritage Trees that are close to high-use recreation areas. Consider temporary fencing for trees that have been recommended for an Advanced (Level 3) risk assessment until risks can be evaluated. Implement bollards or fencing to restrict access to trees that have cabling, bracing, or lighting protection measures.

Construction Protection

Construction is a significant cause of decline and death in mature trees, both directly through damage to roots, branches, and trunks, and indirectly by altering soil properties that hinder root function. Construction that takes place within the tree protection zone (TPZ) of a Heritage Tree requires submission and implementation of a tree protection plan for review and approval by the RAP General Manager following consultation with the Principal Forester. The tree protection plan shall include the following information:

- A drawing of the site at scale, indicating the location of the Heritage Tree, TPZ, protective fencing, and all construction activities including traffic flow and areas for disposal and storage.
- Specifications for protective fencing, consisting of fencing materials and signage, where all construction activities are prohibited. Protective fencing shall be sized to include the entire TPZ, at minimum.
- Specifications for mulching to further protect the TPZ from soil compaction and root damage.
- A description or drawings of the final site grade.
- The dates of construction.
- Acknowledgement that RAP Forestry may access the Heritage Tree for inspection at any time.

Special Use and Event Permits

Activities that require a RAP permit and that take place near the TPZ of a Heritage Tree shall include a tree protection plan for review and approval by the RAP General Manager or designee. The tree protection plan shall outline steps to minimize soil compaction and damage within the TPZ during the permitted activity, including the use of temporary fencing, signage, verbal instructions, and/or monitoring.

TREE CARE INTERVENTIONS

Watering

In times of drought, prioritize Heritage Trees for irrigation or hand watering. Water deeply across the area of the CRZ, 1-2 times per month during the drought period.

At other times, make recommended alterations to watering quantity and frequency according to the recommendations of an ISA Certified Arborist® if a root/soil inspection detects soil moisture conditions that are not in alignment with species requirements.

Reduce Root Competition

Competition with turf grass and plants for nutrients and water reduces the life expectancy of mature trees. Remove or reduce plants within the TPZ to reduce competition. Removal methods may include sod removal, selective herbicides that will not harm the tree, or hand/mechanical weeding of plants. Prohibit the use of planters, groundcover, or garden beds within the TPZ of Heritage Trees.

Mulching

Mulching adds organic matter to the soil and moderates soil temperature and moisture extremes, improving conditions for tree roots. Mulch also reduces competition from weeds and grass and prevents mechanical damage by keeping lawn care equipment away from the base of the tree. Lastly, mulch can protect roots from soil compaction from vehicles and foot traffic.

Where mulching is appropriate around Heritage Trees, place mulch 2–4 inches deep and cover as much of the root system as possible, extending up to two to three times the diameter of the tree canopy. When placing mulch, leave a mulch-free area that is 1–2 inches wide around the base of the tree to avoid overly moist bark conditions. Reapply mulch annually in the spring or fall.

Pruning

On mature trees, pruning should be limited to cuts that are necessary to improve public safety, resolve infrastructure conflicts, reduce the risk of tree or limb failure, and promote the health and vigor of the tree. Avoid removing the live foliage of Heritage Trees unless necessary, as older trees must retain as much sugar-producing capacity as possible to avoid premature decline. Limit pruning cuts to outer branches as much as possible to ensure that the tree can properly seal pruning wounds. If removal of a primary branch is being considered, shortening or thinning the branch by removing tertiary and smaller branches may be preferable to removing the entire branch.

Pruning shall take place under the direct supervision of an ISA Certified Arborist® in consultation with RAP Forestry. The goals of pruning should be identified and supported by pruning techniques that are matched to those goals and that adhere to industry standards including ANSI A300.

Written pruning specifications that are approved by RAP Forestry can clarify the scope of pruning work, including such details as:

- The location, size, and species of the tree to be pruned.
- The goal of pruning, e.g., “repair storm damage”, “remove branch rubbing on building roof”.

- The specific branches to be pruned.
    - Alternatively, a description of the size of branches to be removed, their general location, and the pruning dosage, e.g., “branches up to two inches diameter, located in the outer third of the crown, totaling no more than 10% of total live canopy”.
- Criteria for reduction cuts, such as the diameter or branch order of remaining lateral branches.
- The date of work.
- The name of the ISA Certified Arborist® overseeing work.

Fertilizing

Fertilizing can correct nutrient deficiencies and support healthy growth. For Heritage Trees that show signs of nutrient deficiency, use soil and tree tissue tests to determine the type of fertilization and the route of delivery. Work in consultation with RAP Forestry and under the guidance of an ISA Certified Arborist® to develop a treatment and monitoring plan for Heritage Trees.

Aerating and De-compacting Soil

Soil compaction is common around mature trees in urban environments. Use non-damaging procedures to loosen and enrich compacted soil around Heritage Trees. Methods include soil aeration and vertical mulching such as through the use of an air spade, which uses high speed air to move or loosen the soil around a tree without damaging the roots. Incorporate compost and nutrients into loosened soil. Addition of mulch to the top soil layer can also reduce compaction over time as organic matter is incorporated into deeper soil horizons.

Pest Management

Utilize RAP tree inventory data to identify Heritage Trees that are at risk for infection by pests and diseases that are known to be locally present. Use integrated pest management (IPM) principles, where possible, and apply treatments preventively, rather than remedially after trees are already showing signs of decline. Postpone tree activities during periods when certain pests and diseases can be spread. For pests and diseases that pose a serious risk to the survival of Heritage Trees, consider preventative removal of nearby trees that may serve as pest/disease vectors. Lastly, educate the public about behaviors that can spread pests and diseases, and teach them to recognize and report conspicuous insects.

Cabling and Bracing

Tree support systems can help reduce the risk of structural failure and prolong a Heritage Tree’s life. In limited cases—for select Heritage Trees and when other options have been exhausted—cabling or bracing may be used to prevent crotch splitting, branch breakage, or to provide trunk support for trees with significant cavities. Cables are installed at a distance of about two-thirds up from the union, whereas bracing with rods is installed close to the union of trunk/limbs with included bark. Cabling and bracing require regular inspections by qualified arborists to maintain safety.

Prior to installing a support system, Heritage Trees should be pruned, if possible, to reduce the size of the canopy. Cabling or bracing of RAP Heritage Trees shall be used in combination with fencing to exclude activity under the tree.

Lightning Protection

Tree lightning protection systems offer a safe pathway to redirect electricity away from the branches and trunks of the tree. Lighting protection for RAP Heritage Trees may be appropriate in limited circumstances where lightning strikes are likely to occur given the height of the tree relative to surrounding objects. Theft protection measures, such as fencing, security systems, concealing paint, and/or limited public access, can help reduce the risk for theft of copper-based lightning protection systems.

Removal and Alternatives

Tree removal procedures are outlined in RAP's *Urban Forest Manual*, including provisions for emergency removal when a tree poses an immediate hazard. Tree removal decisions are made using advanced (Level 3) risk assessment techniques by a TRAQ qualified ISA Certified Arborist® in consultation with RAP Forestry. Tree removal procedures are described in RAP's *Urban Forest Manual*, Appendix F, "Tree Removal Procedure".

For Heritage Trees where failure is likely to occur in the opinion of a TRAQ qualified ISA Certified Arborist®, but the consequences of failure are low, Heritage Trees may be allowed to decay in place. Factors to be considered when allowing a tree to decay in place include the ecological value of leaving the tree, the lack of pests or diseases that pose a risk to other trees, and exclusion of visitors from the tree fall area using fencing. Examples include Heritage Trees that are located within natural areas.

Heritage Trees of particular cultural, historic, or environmental significance may be considered for cloning to preserve their legacy and genetics. Engage with local universities and arboreta to conduct cloning. Ceremonial tree plantings using cloned trees can provide a special opportunity to engage with the public about Heritage Trees.

RECOMMENDATIONS FOR PRIORITY INTERVENTIONS

The suggested order of preservation strategy implementation for Heritage Trees is:

1. Basic (Level 2) Tree Risk Assessment
2. If indicated by the above, an Advanced (Level 3) Tree Risk Assessment
3. Reduce root competition around the Heritage Tree by removing vegetation and adding mulch to critical root zones. Repeat annually.
4. Create a plan to provide supplemental water to Heritage Trees via irrigation or hand watering during drought conditions.
5. Enact protections for Heritage Trees during nearby construction activities.

An Excel-based tool that is provided as a supplement to this report makes use of the RAP tree inventory to identify existing Heritage Trees that are flagged for confirmation or removal; non-Heritage trees that are flagged for future consideration for Heritage Tree status; and areas to document Heritage Tree nomination, confirmation, and the date of a Basic (Level 2) Risk Assessment, which is recommended as the first preservation strategy for all Heritage Trees.

[This page left intentionally blank]

DRAFT

Appendix O - June 2015 Board of Public Works Street Tree Removal Permit and Tree Replacement Condition Policies

DRAFT

"POLICY"

DEPARTMENT OF PUBLIC WORKS
BUREAU OF STREET SERVICES
REPORT NO.1

ADOPTED BY THE BOARD
PUBLIC WORKS OF THE CITY
of Los Angeles California

JUN 17 2015

Executive Officer
Board of Public Works

Date: June 17, 2015

CITYWIDE

Honorable Board of Public Works
of the City of Los Angeles

Commissioners:

REQUEST BOARD APPROVAL AND ADOPTION OF THESE STREET TREE REMOVAL PERMIT AND TREE REPLACMENT CONDITION POLICIES

RECOMMENDATIONS

That your Board review, approve, and adopt these street tree removal and tree replacement condition policies as follows to codify existing practices:

1) Designate the Bureau of Street Services (BSS), Chief Forester, as the authorized officer and employee to issue street tree removal permits.
2) Require the public be notified of the proposed removal of three or more street trees by: placing a public notice for a 30 calendar days minimum period on each proposed tree removal providing the reason for tree removal and BSS contact information, placement of the address/project on the BSS Street Tree Removal Notification System, informing the Community Forest Advisory Committee (CFAC), and emailing the respective Council District Office(s) in which the street tree removals shall occur.
3) Require a Board of Public Works (BPW) public hearing for the consideration of the removal of three or more street trees at a specific address or a single project containing multiple addresses.
4) Require as a condition of a tree removal permit that each approved street tree removal be replaced by the permit applicant on a 2:1 basis with 24" box size tree stock and be watered for a minimum three-year period.

HISTORY

The BPW is empowered to govern the tree and plant infrastructure in the City of Los Angeles (COLA) public rights-of-way (ROW) by the Los Angeles Municipal Code (LAMC) Sec. 62.161-176. This includes the power to permit street tree removal and planting (LAMC Sec 62.162(a)). The current street tree removal permit and tree replacement condition practices are largely a compendium of ad hoc decisions made over the past fifty years or more. This report makes recommendations that will codify the requirements for obtaining a street tree removal permit and tree replacement conditions associated with the issuance of such permits. Codification of these current practices does not preclude additions and alterations to the requirements going forward

as conditions warrant.

Current BPW practice for considering the removal of two or fewer street trees requires a review by the designated BSS employee/officer and/or a single commissioner after which the request is approved or denied. In cases where the removal of three or more street trees is requested, the subject trees are posted for a minimum of thirty calendar days after which a BPW public hearing is held and an approval/denial of the street tree removal permit is made.

Current street tree removal permit conditions require a 2:1 tree replacement with 24" box size tree stock for each approved street tree removal. Every effort is made to have the replacement trees planted at the tree removal location but in the event room for replanting is not available, the replacement trees are delivered to BSS for planting in other areas of the City. The applicant is required to water any trees planted at the tree removal location for a minimum three-year period.

RECITAL

The Board of Public Works and its officers and employees have control and authority over the street tree population per the COLA LAMC Sec. 62.161-62.176. The BPW or its designated officers/employees manage the tree and plant infrastructure contained within the public ROW as well as private property trees/plants that may impact the public ROW. As part of this authority, the BPW, or its designated officer/employee, is empowered to issue street tree removal permits when upon inspection and review it is determined tree removal is required.

The BPW has been exercising their power to approve or deny street tree removal for many years. Historic and current BPW practices are directed to the preservation of healthy and vital street trees. However, there are reasons that street tree removal permits may be considered that include damage to City infrastructure or private structures/buildings, construction of a vital City facility, installation of vital new streets and other public ROW improvements, capital improvement projects, and the structural integrity/condition of a tree that may warrant removal.

The LAMC Sections referenced above empower the BPW to make street tree removal permit decisions while not codifying the actual application of this power. The BPW application of their power has been manifested by practices and ad hoc policies developed over the last 50 years or more. For the most part, no formal tree removal permit or tree removal permit conditions or replacement policies have been adopted. The existing requirements are actually a function of long-standing past practices.

The LAMC contains no language, implicit or explicit, requiring public notification of any quantity of potential street tree removal(s) nor the necessity for a BPW public hearing to consider the proposed tree removal(s). The necessity for these to occur has become BPW practices over time. Codification of the practices and their application would allow for easier understanding of the process, provide a more timely process reducing the strain on COLA resources as well as the permit applicants, and be more closely aligned with the intent of the LAMC.

Currently, the BPW and/or its officers/employees utilize the following street tree removal permit procedures:

Removal of Two or Fewer Street Trees

- Notifications
    - Respective Council office in which the permit request resides
- Application and tree and site inspection with photographs are reviewed by BSS officer
- Application and tree and site inspection are reviewed with a BPW commissioner at which time an approval or denial of the tree removal permit is determined
- If approved, tree removal permit with tree replacement conditions is issued

Removal of Three or More Street Trees at One Address or a Single Project with Multiple Addresses

- Notifications
    - Respective Council office in which the permit request resides
    - Posting on the Street Tree Removal Notification system
    - Physical notice placed on each proposed tree removal for a 30 calendar-day minimum period
- Application and tree and site inspection with photographs are reviewed by BSS officer and a recommendation for approval/denial is determined and a BPW Board Report regarding the tree removal project is created
- BPW public hearing to consider the street tree removal permit application

As previously mentioned, most of these processes are due to past practices and ad hoc decisions for individual tree removal permit locations/projects. The exception to the ad hoc decisions was a 1991 formally adopted tree removal policy relative to Bureau of Engineering (BOE) projects. The adopted policy required BOE projects of three or more trees be physically posted on each proposed tree removal and a subsequent public hearing regarding the project be held to determine the approval/denial of the street tree removals. The adoption of these processes for BOE projects soon became "policy" for all projects requiring three or more street tree removals regardless of the project source.

The LAMC Sec. 62.170 states, "The Board may require, as a condition to any permit to remove or destroy a tree, that the permittee plant another tree of the type and size specified in the permit, within forty (40) days from the date of the issuance of the permit, in place of the tree to be destroyed or removed pursuant to the permit." For at least the past 25 years, the BPW has required that all street tree removals shall be replaced on a 2:1 basis. Although the tree stock size required to be planted varied during that time, for approximately the last ten years the tree stock replacement size practice has been 24" box size stock.

The intention of the tree replacement condition has been and continues to be ensuring street tree canopy succession. There has always been some dispute among tree professionals as to the best tree stock replacement size and species and the viability of ensuring tree canopy succession using a 2:1 tree replacement ratio. However, BSS professionals have found that tree replacement with 24" box size tree stock provides the best chance of tree survivability in the fairly hostile public ROW environment while also offering the best chance at acclimatization to its new growing environment. Further, a 2:1 tree replacement ratio will provide canopy succession within seven to ten years for the average street tree size tree removal.

Given past practice and the desire to provide clear guidance to the general public and applicants for tree removal/replacement, the BSS recommends the BPW formally adopt the following street tree removal permit and tree removal replacement conditions to codify past practices:

- Designate the Bureau of Street Services (BSS), Chief Forester, as the authorized officer and employee to issue street tree removal permits.
- Require the public be notified of the proposed removal of three or more street trees by: placing a public notice for a 30 calendar-day minimum period on each proposed tree removal providing the reason for tree removal and BSS contact information, placement of the address/project on the BSS Street Tree Removal Notification System, informing the Community Forest Advisory Committee (CFAC), and emailing the respective Council District Office(s) in which the street tree removals shall occur.
- Require a Board of Public Works public hearing for the consideration of the removal of three or more street trees at a specific address or a single project containing multiple addresses.
- Require as a condition of a tree removal permit that each approved street tree removal be replaced by the permit applicant on a 2:1 basis with 24" box size tree stock and be watered for a minimum three-year period.

The formal adoption of these street tree removal permit and tree replacement condition policies will allow for uniform application of the policies now and provide a baseline for any future policy modifications that may be necessary. The intention is to provide a firm groundwork for current and future City personnel to make sound street tree removal decisions and enable a more understandable process for the applicants and the general public.

The BSS is aware that the COLA faces unique and immediate challenges in the areas of sustainability, the historic drought, and infrastructure replacement, all towards the goal of making the COLA the most livable of American cities. These challenges may necessitate the creation of additional policies in the future.

(RL)

Report Prepared by:

Ronald Lorenzen, Assistant Director
Bureau of Street Services
Phone No (213) 847-3333

Respectfully submitted,

NAZARIO SAUCEDA, DIRECTOR
BUREAU OF STREET SERVICES

Appendix P - Tree Related City of Los Angeles Liability Claims Payouts

The City Controller's Liability Claims Dashboard details out the claim payouts made by the City based on both case type and City department. The table below represents all payouts amounts for claims labeled as "Dangerous Condition - Tree" or "Trip and Fall - Tree" between Fiscal Year 2019-20 and Fiscal Year 2024-25. In total during this timeframe the City paid out $52.64 million dollars for tree related liability claims.

Fiscal Year	Total City Payout Amount Related to Trees	Total Claims	Average Claim Payout Amount
Fiscal Year 2024-25	$13.75 million	299	$45,975
Fiscal Year 2023-24	$8.58 million	189	$45,383
Fiscal Year 2022-23	$17.73 million	257	$68,987
Fiscal Year 2021-22	$2.81 million	284	$9,894
Fiscal Year 2020-21	$3.17 million	264	$12,017
Fiscal Year 2019-20	$6.60 million	134	$49,230

DRAFT

Appendix Q - Urban Forest Financing Study (UFFS)

The 2018 First Step: Developing an Urban Forest Management Plan for the City of Los Angeles Report included a two-part key recommendation for funding - "Increase urban forestry funding to support sustainable management" and "Complete an Urban Forestry Financing Plan". The Urban Forest Financing Study (UFFS) addresses the second part of this recommendation. However, funding for urban forest has not yet been increased as needed.

The nonprofit City Plants received funding from the United States Forest Service and California Department of Forestry and Fire Protection (CAL FIRE) to hire consultants to create the UFFS. The final draft was completed in 2022. The City began using the findings in the report immediately, while the report was sent to the City Administrative Officer (CAO) for review.

The UFFS includes two sections. The first section assesses the full cost for funding urban forest management activities and compares it to the current resources allocated by the City, illustrating the existing gap. The second section includes findings and recommendations for filling the funding gap.

Cost Analysis and Funding Gap

The UFFS first needed to define best management practices for its analysis in order to compare the City's spending levels with those needed for fully covering basic urban forest maintenance and preservation. This was accomplished through a literature review of current research, City documents and interviews with staff, International Society of Arboriculture (ISA) and American National Standards Institute (ANSI) standards, potential climate change impacts, and consultation team expertise.

It's important to note that while generally aligned, the Urban Forest Management Plan (UFMP) categorizes activities related to urban forest management differently than the UFFS. The UFMP uses the four pillars of planting, maintenance, preservation, and community engagement and education. The UFFS uses two categories. The first is maintenance, which combines the UFMP categories of planting and maintenance. The second is preservation, which includes the UFPM category of preservation plus a few topics from the UFMP maintenance category. Community engagement and education is referenced, but analysis does not include calculations of the full costs associated with this pillar.

DRAFT

For the UFFS analysis, urban forest maintenance is defined as all management activities for the full life cycle of all street and park trees, including:

- **Planting:** In lieu of an established canopy target, the UFFS uses a 95% stocking rate of all available planting sites to estimate annual planting needs*.
- **Establishment Care:** Five-year watering and maintenance cycle for newly planted trees.
- **Pruning:** Five- to seven-year pruning cycle for mature trees and dedicated structural pruning for young trees.
- **Tree Removal:** Timely identification, inspection, and removal of all dead, diseased, and structurally unsound trees within the calendar year they are identified.

**The UFMP is not setting a specific citywide annual tree planting goal. Instead, the UFMP emphasizes neighborhood canopy targets and sets a citywide canopy goal. Achieving these targets requires prioritizing tree planting projects based on overall canopy potential. Focusing on a lower number of large-stature trees, as opposed to a higher number of smaller species, may ultimately yield greater tree canopy cover. Activities related to tree pruning and preservation also support overall canopy increase.*

For the UFFS analysis, urban forest preservation is defined as all activities related to preserving street, park, and private property protected trees, including:

- **Integrated Pest Management:** Coordinated actions to limit impacts from invasive pests on City-managed trees, requiring regional coordination. Note, this topic is included as a maintenance activity with the UFMP.
- **Development Services:** City staff and resources necessary to review construction documents and tree removal applications, conduct site visits, and enforce protection standards during development projects.
- **Investigation and Enforcement:** City staff and resources required to investigate illegal tree pruning and removals and enforce penalties.
- **Ongoing Staff Training:** Educational and credentialing opportunities for City staff to enhance their arboriculture knowledge.
- **Public Education and Outreach:** City staff interaction with the public in formal and informal settings, distinct from a city-wide education campaign.

The UFFS found that the City was spending roughly one quarter of what was needed to implement the basic best management practices for tree maintenance and preservation. The UFFS reports the total annual funding for the Department of Public Works Bureau of Street Services Urban Forest Division (UFD) and the Department of Recreation and Park Forestry Division (RAP Forestry) at $30 million and estimates that $118 million is needed annually (in 2022 dollars). This includes direct life cycle and preservation costs, new equipment, and indirect costs for staff benefits.

DRAFT

The UFFS also included a comparison of the City's per capita spending on urban forestry to that of San Francisco, Melbourne, and New York. The existing per capita spending for the City ($7.70) is significantly lower than San Francisco ($21.74) and Melbourne ($27.06), and only slightly higher than New York ($6.47). If the City were spending at the recommended level of $118 million, its per capita spending for urban forestry would rise to $30.23.

Finally, this section of the UFFS included suggestions on a phased approach to implementing the best management practices, which would include a substantial increase in the City's urban forest workforce from roughly 200 staff to over 600.

Findings and Recommendations

The UFFS comments that many cities struggle with funding urban forest maintenance, as the General Fund allocations are often not sufficient to meet the best management practices listed above. Almost 20 funding sources were assessed, including taxes and assessments (such as a special property tax, a variety of types of special districts, and transit occupancy taxes), fees and fines (such as developer fees, Quimby fees, inspection and permit fees for tree work, and environmental fines), other existing sources (such as annual General Fund allocations, capital improvement programs, and general obligation bonds), and potential non-traditional sources (such as insurance rate mitigation and carbon trading).

The UFFS recommends a layered funding scheme to fill the identified $88 million gap, utilizing a combination of:

- Increased General Fund annual allocation
- Special assessment / ballot measure
- Combination of other smaller sources, such as fees and fines, grant funding, and corporation or philanthropic contributions

The UFFS states the following:

> Filling an $88M operating gap, regardless of phasing, requires a sizeable, foundational funding source. A countywide special property tax is the greatest opportunity to generate significant funding and use those funds equitably and flexibly. To support the assessment's appeal to voters, the annual allocation from the general fund could be increased modestly to match the taxpayer contribution. Management of the urban forest according to best management practices creates cost-savings for the City, reducing the number of trip and fall cases, improving

public health, and mitigating climate risk. Quantification of this cost savings will be discussed and further analyzed in the UFMP.*

With a strong base of funds for urban forest management, a combination of other, smaller sources should be layered to complete the funding stack. In particular, fees and fines are not currently reflective of market value or staff time, and should be restructured to fully recover costs. Contributed income, including both grants and individual and corporate contributions, can help match municipal spending, and should be coordinated through a regional trust for urban forestry to maximize funds, outreach, and management.

Los Angeles should explore long-term, non-traditional funding sources to better leverage the nexus between urban forest maintenance and its benefactors. Sources may include insurance financing in partnership with health insurance companies interested in mitigating future public health risk due to extreme heat, carbon trading, and bringing in companies that see reduced costs due to a healthy urban canopy.

**This action was outside the scope of this UFMP.*

City Administrative Officer (CAO) Review of the UFFS

Review by the Office of the City Administrative Officer (CAO) identified three missing considerations within the UFFS analysis:

- **City staff cost increases.** City staffing contracts currently include frequent and regular increases in pay. This means that the point in time analysis provided in the report, of both current funding provided and needed funding, quickly becomes outdated.
- **Increased yard space.** The UFFS detailed increased staffing levels, which would require space for staff, vehicles, and equipment. Current City facility yard space for UFD and RAP Forestry are already at capacity. If the workforce is further expanded, additional yard space will be required and should be included in efforts to recover needed costs. The initial estimate reflected that the expanded yard space could cost the City between $50 and $150 million.
- **Tree canopy equity.** The UFFS effectively identifies and assesses activities designed to increase overall canopy cover and have the City reach industry standards of duty of care. However, it does not incorporate all activities necessary to ensure that low-canopy communities, especially those with identified equity considerations, are prioritized for intervention, approached with

DRAFT

community-appropriate strategies, and have capital investments to install appropriate and sufficient urban forest infrastructure. The costs for achieving tree canopy equity targets are still unknown and will need to be determined at the neighborhood level.

The Office of Forest Management (OFM) concurs with these findings. However, the scope of the UFFS project did not allow for inclusion of these items. As the City takes steps to increase funding for urban forestry it will be important to ensure these concerns are addressed as part of each action.

DRAFT