December 2024

THE CITY OF PLEASANTON

Urban Forest Master Plan

PREPARED BY

DUDEK


URBAN FOREST MASTER PLAN
PLEASANTON
CITY of PLEASANTON

VISION

Pleasanton's urban forest is a well-managed, vital resource providing social, economic, and environmental benefits which contribute to the community's quality of life, value, character, and beauty.

TABLE OF CONTENTS

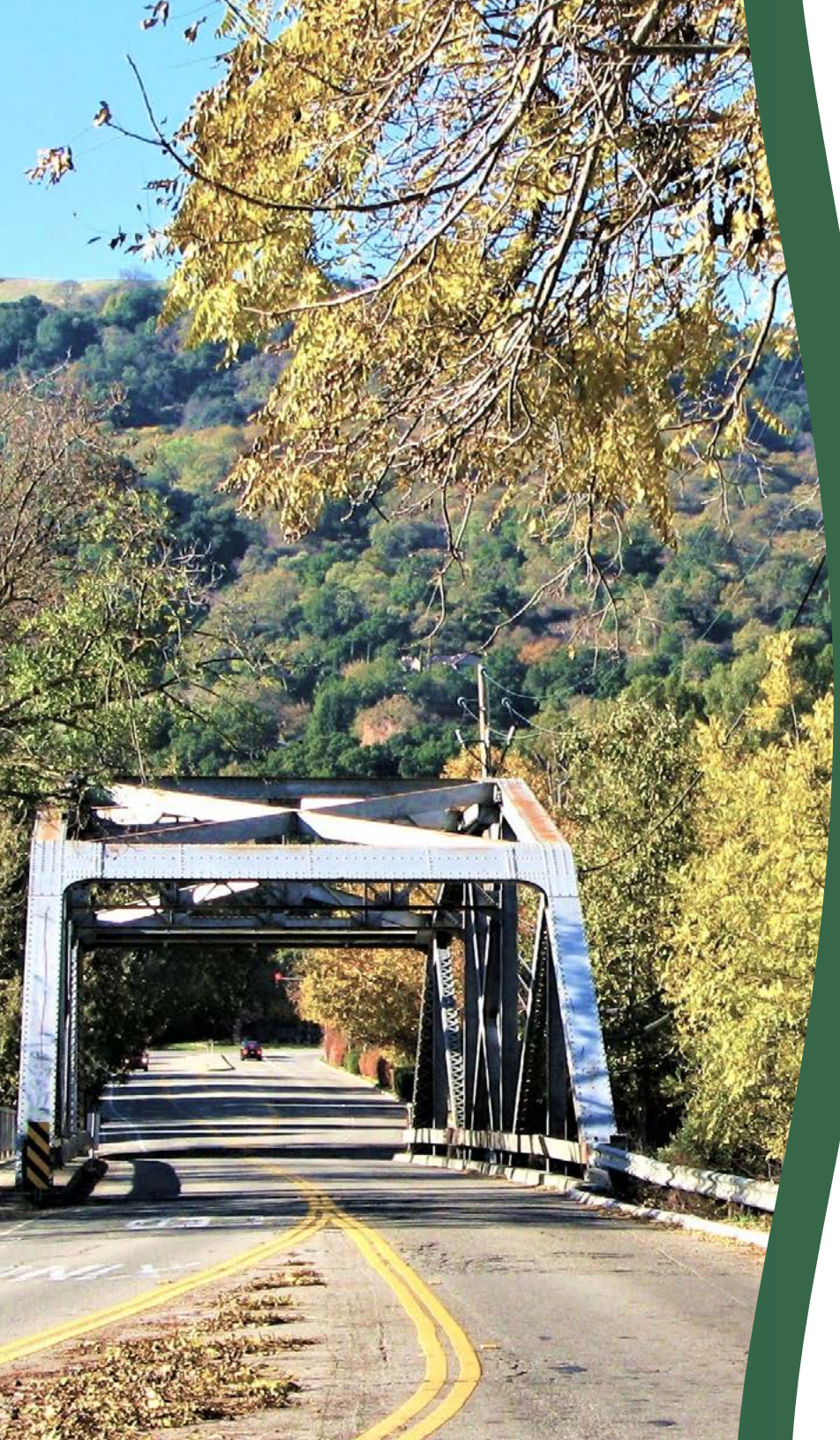

TABLE OF CONTENTS

FIGURES

PART 2 TECHNICAL ASSESSMENT

TABLE OF CONTENTS

TABLES

FIGURES

PART 3 APPENDICES

ACKNOWLEDGMENTS

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PART 1
Urban Forest Master Plan

This part of the document is written for the public and summarizes the history and current state of Pleasanton's urban forest, identifies key findings, and provides a strategic action and implementation plan to help the City achieve its future vision for the urban forest.

SECTIONS

1 | Introduction: provides an overview of what an Urban Forest Master Plan (UFMP) is and why the City of Pleasanton needs such a plan. It also covers the benefits of trees, the key findings of the plan, and a summary of the canopy cover and tree inventory analyses.

2 | Context: covers the history of trees and tree-related ordinances in Pleasanton, the UFMP development process, and a summary of community engagement activities.

3 | The Plan: contains the overall strategy for the City in achieving its urban forest goals including the vision, guiding principles, and specific actions that will serve as a road map for Pleasanton.

4 | Implementation: provides a prioritized list of actions for improving the urban forest along with the relative cost, responsible party, and method of measurement for tracking the success of each action.

5 | Monitoring: includes a summary of the self-assessment monitoring tool by Vibrant Cities Labs that shows the current status (prior to the UFMP) of Pleasanton on a number of key urban forest sustainability indicators. This tool will also allow the City to track future improvements to these urban forest sustainability indicators.

6 | References: Provides a list of scholarly sources and research articles referenced in this plan.

PART 2
Technical Assessment

This part of the document is tailored for City Staff and provides a deeper dive into the analyses of the City's urban forest canopy cover, tree inventory, staff and budgeting, community engagement, and how this plan relates to other City planning documents.

PART 3
Appendices

This section of the document contains additional information and resources referenced in Parts 1 and 2 including a section on wildfire planning (**Appendix A**), a frequently asked questions sheet with relevant City contacts for residents (**Appendix B**), a recommended tree species list (**Appendix C**), and a series of illustrated arboriculture best management practice standards (**Appendix J**).

PART 1
URBAN FOREST MASTER PLAN

1

INTRODUCTION AND SUMMARY

1.1 What is an Urban Forest Master Plan?

An Urban Forest Master Plan (UFMP) is a guiding document designed to provide clear and actionable goals and recommendations for the long-term care, preservation, and expansion of the community's urban forest. The urban forest is made up of both public trees (the ones you see in parks, parkways, medians, rights-of-way, and on other City properties) and private trees (the ones on residential, commercial, and industrial properties). Pleasanton's community members receive urban forestry benefits from all trees in their city, regardless of ownership, and play an equally important role in contributing to the City's urban forest. Throughout the UFMP, both publicly and privately managed trees are discussed to highlight that tree management procedures, tree protection guidelines, and urban forest-related policies, impact all trees in the city, and reaching Pleasanton's urban forestry goals will require a collaborative and collective effort from the entire community.

The UFMP's goals and recommendations are based on a comprehensive analyses of the City's urban forestry program including tree-related planning documents, staff capacity, operational budget, collected tree data for 23,722 publicly managed trees, and an assessment of city-wide canopy cover over time. Input from both City staff and the community were crucial in ensuring the goals and recommended actions are realistic and achievable for Pleasanton. Following the strategies and recommendations in the UFMP will increase the operational efficiencies of the City's urban forestry program and help create a robust and resilient urban forest for future generations.

1.2 Why the City Needs an Urban Forest Master Plan

The need for a UFMP initially arose in early-2021 to address the urban forestry-related challenges and goals identified in the City's Climate Action Plan 2.0. The City also wanted to update its outdated Tree Preservation chapter of the municipal code, identify gaps and increase efficiencies in the City's current management program, and create actionable goals and strategies for growing the urban forest over the next 25 years. The UFMP is the first plan of its kind for the City and has been developed as a roadmap for how the City can best manage and grow Pleasanton's urban forest and improve the benefits the community receives from the City's trees.

Figure 1-1. The Benefits of Trees

BENEFITS *of* TREES *in an* URBAN ENVIRONMENT

HEALTH

CLEANER AIR
Trees absorb pollutants and filter particulates out of the air by trapping them on their leaves and bark.

CONNECTING WITH NEIGHBORS
Trees can encourage civic pride while tree plantings provide opportunities for community involvement.

FRESH FOOD
Trees provide food in the form of fruits, nuts, leaves, bark, and roots.

HEALTHIER COMMUNITIES
Trees improve mental health and public health by decreasing respiratory illnesses and encouraging outdoor recreation.

ENVIRONMENTAL/INFRASTRUCTURE SERVICES

SAVING ENERGY
Shade trees can lower air-conditioning costs 56% annually, burning fewer fossil fuels.

BEAUTY
Trees add character to city streets and residential areas as they radiate with colors, flowers, textures, and shapes.

SHADE
Trees cool cities by up to 10˚F and shaded areas can be 20-40˚F cooler than peak temperatures.

WILDLIFE HABITAT
Trees support the lives of many wildlife and insect species and provide them with food, shelter, and nesting sites.

Source: Dudek 2024

Benefits of Trees

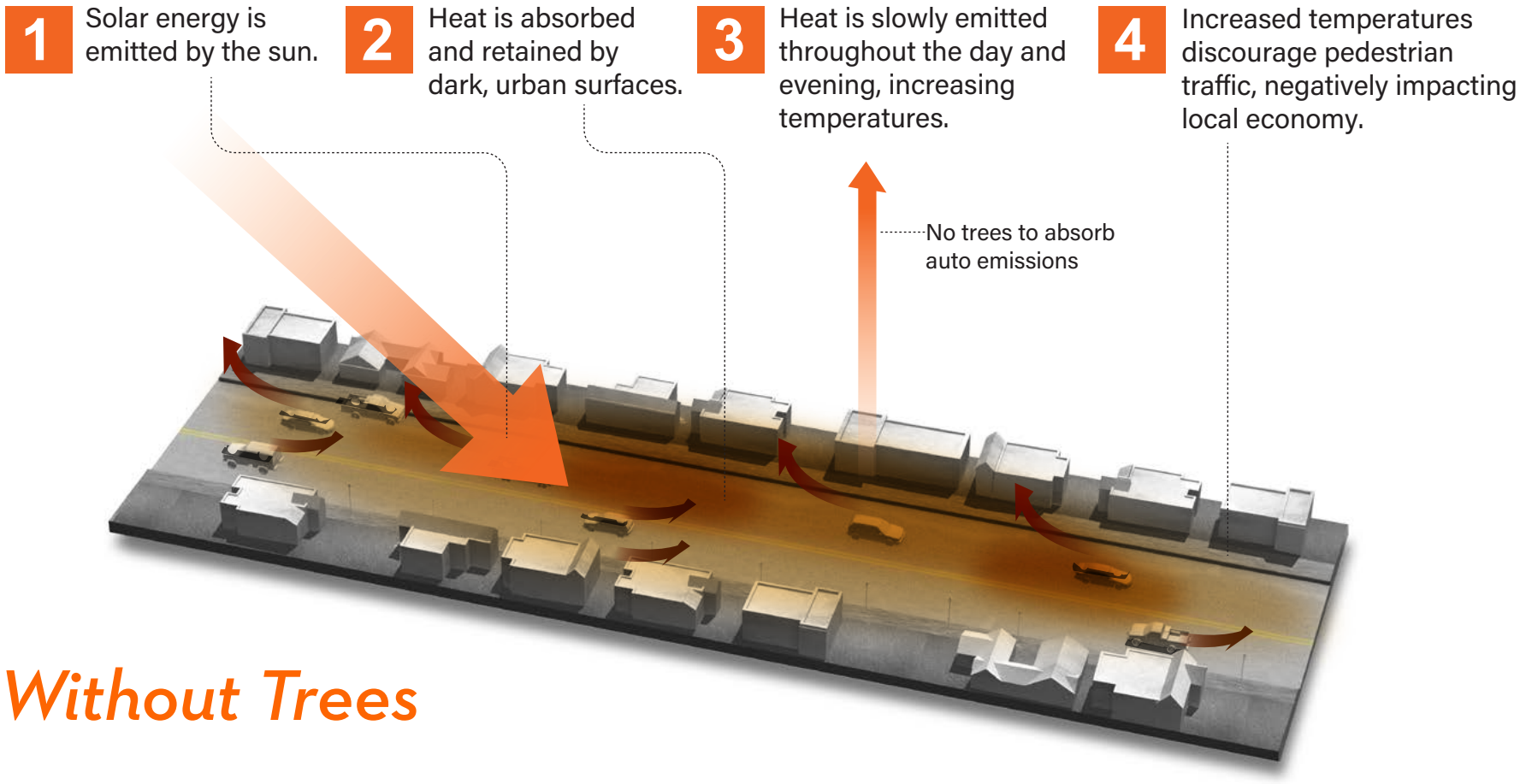
The City of Pleasanton recognizes that trees offer numerous environmental, social, and economic benefits like providing shade and relief from hot weather, creating habitat for wildlife, improving air and water quality, enhancing mental health, supporting physically active communities, reducing energy costs, and increasing property values (O'Brien et al., 2022, Donovan and Butry 2009, Wolf 2007) (**Figure 1-1**). Pleasanton's residents recognize the value that the urban forest brings to their community. Many attendees of the Urban Forest Summit, an event hosted to inform the community about the UFMP, cited Pleasanton's "beautiful trees" as a primary reason they choose to make this city their home. Residents associate Pleasanton's urban forest as part of their community character and identified the urban forest as a priority to preserve for future generations. Community outreach, engagement, and education of urban forestry benefits, value, and principles will be imperative in implementing the UFMP and fostering urban forest advocacy over time. Recognizing these benefits as a valuable public investment, the UFMP formalizes the City's commitment to improving the urban forest and maximizing these benefits for Pleasanton's community.

Mitigating Impacts of a Hotter Future Climate

Urban trees and the benefits they provide will be even more important to protect and enhance in the face of a predicted hotter future climate. Environmental stressors that currently impact the day-to-day activities of Pleasanton's citizens include a variety of climate and health risks such as extreme heat, drought and water uncertainty, longer wildfire seasons, and flooding. These issues are only expected to increase in the future according to California's Fourth Climate Change Assessment (Cayan 2018). Trees will be vital in mitigating these impacts and protecting Pleasanton's future community from these environmental stressors by providing shade and cooler temperatures on hot summer days, reducing the urban heat island effect (**Figure 1-2**), and by intercepting, slowing down, and infiltrating stormwater into the soil during winter months. Similar to residents, trees are also affected by these environmental stressors which can make them more vulnerable to pests and diseases. The UFMP will be a key resource for the City in promoting the long-term health and sustainability of the urban forest by addressing climate-related challenges through recommended management actions.

Figure 1-2. Urban Heat Island Effect

The Urban Heat Island Effect



Source: EPA 2019, 2020

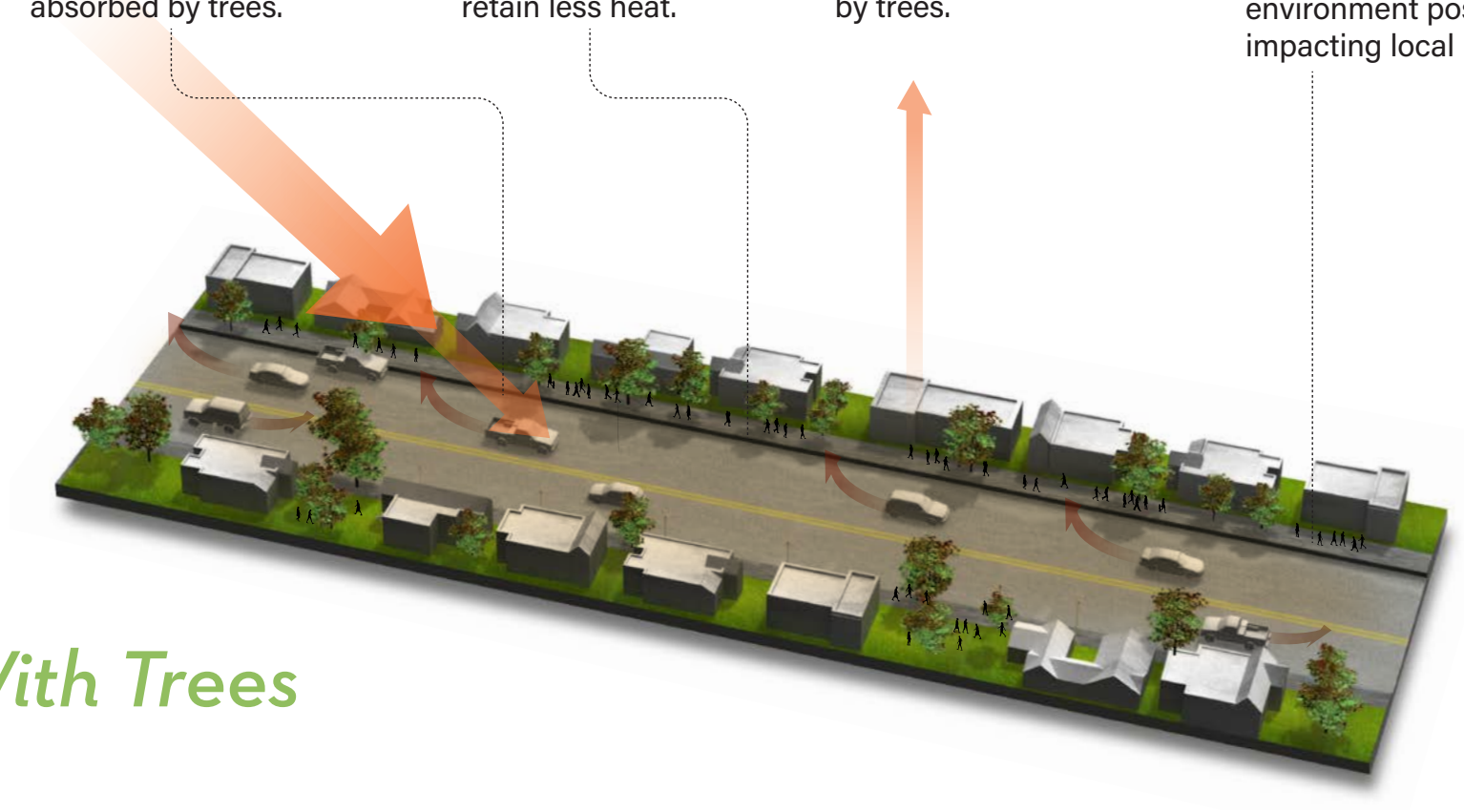
How Trees Help

1 Solar energy emitted by the sun is partially absorbed by trees.

2 Shaded surfaces absorb and retain less heat.

3 Auto emissions are partially absorbed by trees.

4 Cleaner air, cooler weather creates a pedestrian-friendly environment positively impacting local businesses.



With Trees

Source: EPA 2019, 2020

Challenges Facing Urban Trees

Beyond environmental impacts, trees in the urban landscape also face numerous challenges from human-caused factors throughout their lifecycle that are unique to trees growing in cities. To start, urban trees are unable to naturally propagate like trees in natural areas, meaning, just about every tree in the City was planted intentionally by someone, be it a City employee, resident, or business owner. It also means that if new trees are not regularly planted, or if trees being removed are not replaced, the urban forest will diminish throughout the City. Pleasanton's urban forest relies on its community and publicly-driven urban forestry efforts to keep the forest alive and growing.

Another human-related challenge affecting urban trees is how they are planted and maintained. There are many arboriculture best management practices (BMPs) that should be followed when planting and maintaining trees in an urban environment to give them the best chance of surviving and thriving into maturity. If these BMPs are not followed it can lead to tree health issues, future conflicts with surrounding infrastructure, or early mortality. Some of these poor management practices could include trees being planted at a site with insufficient growing space and soil volume, under watering young trees, and too frequent of pruning. Additional human-related challenges that make growing conditions challenging for urban trees include intentional or accidental damage from humans and pollution from cars and other urban-based chemicals (herbicides, fertilizers, etc.). When trees fail to thrive due to limited resources, conflicts with infrastructure as they mature, or are improperly maintained, there is potential for a decline in tree health. When this occurs, trees are removed from the landscape, losing their benefits for the community.

Planning for, selecting, and planting the 'right tree, in the right place,' properly caring for trees to arboriculture standards, and replenishing the urban forest by planting new trees, are the first steps a city and its community can take to decrease the human factors related to trees being removed in an urban landscape. The UFMP considers both environmental and human challenges to urban trees and provides recommendations to mitigate these factors and ensure trees in the City can thrive alongside the people that benefit from them.

Pleasanton's Trees and Urban Forestry Program

Pleasanton currently has a city-wide canopy cover of 25.3%, which is roughly 5% above the average canopy cover for a city in a grassland landscape according to a recent global study (Nowak and Greenfield 2020). Canopy cover is discussed in greater detail in the key findings and in section 1.3.2 below. While the City's canopy cover is doing well,

the recent inventory assessed most of the public trees as being in “fair” condition, meaning there are still areas for improvement in how the City is managing the urban forest. Analyzing the current urban forestry program identifies operational challenges and provides guidance to enhance operational efficiency which will help the City to better manage and care for its trees. While the City works on improving their urban forest program and the management of public trees throughout Pleasanton, it is important to note that private trees (discussed more in Key Finding 2) and the residents and businesses that care for them, play an equally important role in contributing to the City’s overall canopy. One of the most prominent ways the City has protected private trees is through the Tree Preservation Ordinance.

TREE CITY USA

The City of Pleasanton has been recognized as a Tree City USA (Arbor Day Foundation 2024) for the past 8 years! This means the City is committed to maintaining a Tree Board or department, has an adopted tree ordinance, spends at least $2 per capita on urban forestry, and celebrates an annual Arbor Day!

Pleasanton's Favorite Benefits from Trees

The top three benefits of trees resident's most valued were shade, environmental benefits like improved air and water quality, and the aesthetic value they give the City of Pleasanton.

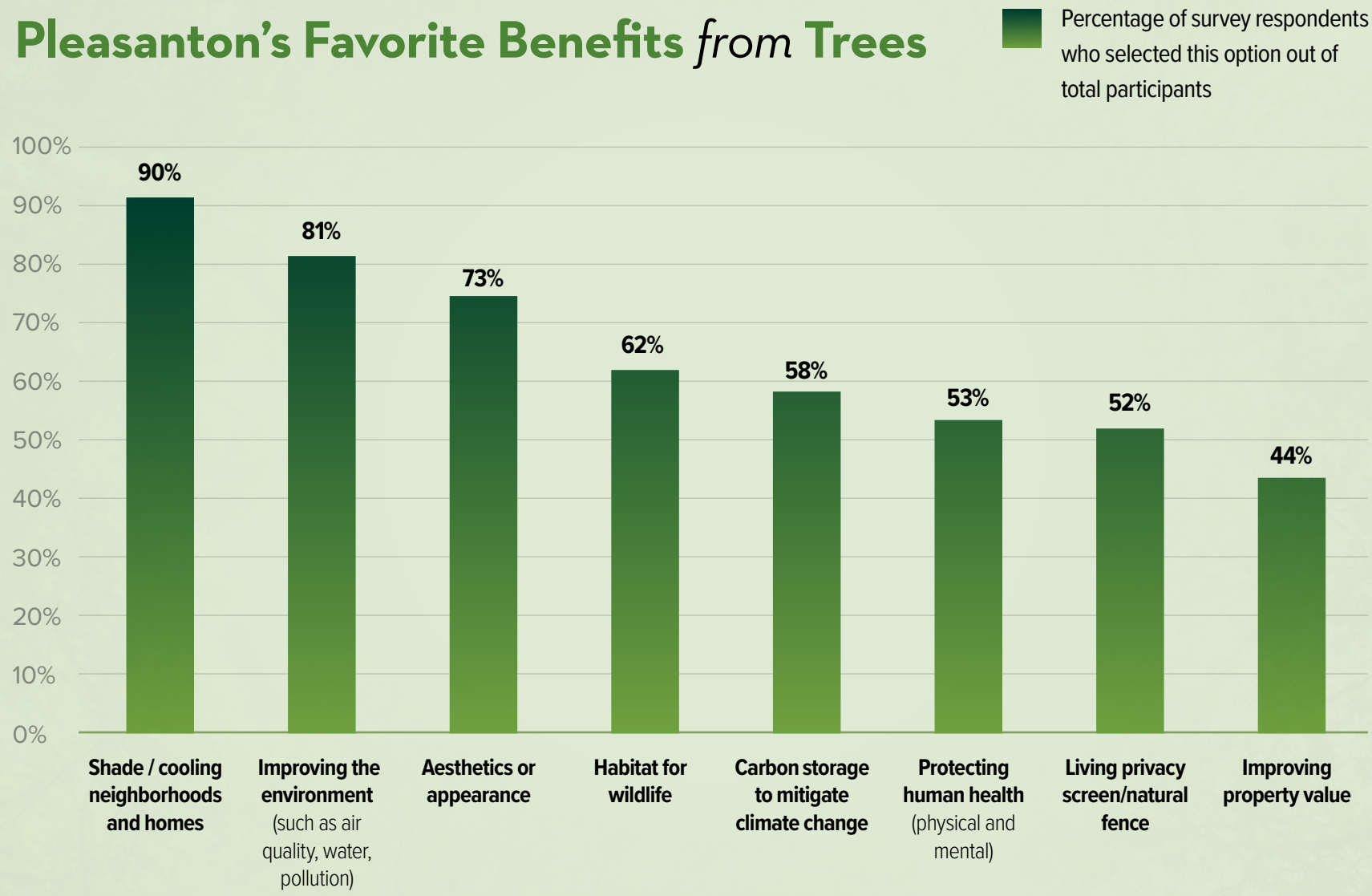
(Chart on the following page)

The Tree Preservation Ordinance and the Role of Private Property

Because the collective urban forest relies on the contribution from trees on private property, updating the Tree Preservation Ordinance was a top priority under the greater UFMP effort. The Tree Preservation Ordinance, discussed more in Section 2.1, is the City's main tool for protecting existing mature trees on private property and ensuring trees that are removed will be replaced with appropriate new trees so that the overall urban forest can continue to grow. The City's efforts to update and enforce the Ordinance is one step towards meeting UFMP goals. Community advocacy, education, and identification of resources for residents are also vital to successfully implementing the UFMP.

Tree management is an ongoing venture which requires constant vigilance for their care and success over a long period. This care can be expensive for property owners (both public and private) so engaging and educating the community on the benefits of trees in the built environment is paramount to encouraging their protection over the next 25 years and beyond. In addition to helping to foster a desire to plant new trees and protect existing trees, Pleasanton will need to find new ways to incorporate large tree canopies into older neighborhoods which lack trees. This plan outlines a thoughtful and creative approach to ensure the equitable distribution of trees and shade for the entire city. Working together with the community, the City will utilize the UFMP to help achieve its vision for a resilient and robust urban forest that will continue to provide vital social, economic, and environmental benefits for future generations to come.

Pleasanton's Favorite Benefits *from* Trees



1.3 Key Findings

1.3 KEY FINDINGS

Development of the UFMP revealed key findings that were consistently discussed by City staff and residents and confirmed through program analysis. The detailed analysis and methodology are provided in the technical assessment of the UFMP. The key findings informed the vision, guiding principles, and actions in this UFMP, which are a roadmap for achieving the City's urban forest goals. The state of the urban forest and its most pressing issues are presented in the following five findings:

#1 Canopy Cover is Increasing Through Improved Management Actions

#2 Trees on Private Property Provide the Majority of the Pleasanton's Urban Forest Canopy

#3 The Future Health of Pleasanton's Urban Forest May be at Risk without Active Measures to Increase Species Diversity

#4 Additional Funding is Required for the City to Achieve its Urban Forest Goals

#5 Need for a Dedicated Urban Forestry Team

Key Finding #1

Canopy Cover is Increasing Through Improved Management Actions

Canopy cover, the area of land shaded by tree leaves, branches, and stems, increased on a City-wide basis from 18.5% in 2012 to 25.3% in 2022 (**See Table 1-1 and 1-2**). Several factors have contributed to this observed increase, including younger trees maturing in the urban forest, improved tree ordinance enforcement practices, and the Green Building code requiring more trees in parking lots and the many large private development projects over the last decade preserving and planting more trees more trees. The finer scale resolution of the 2022 data[1] that was compared to the 2012 data may have also accounted for some of the increase in canopy cover). The City will need to continue to improve management actions, such as replacing all trees that are removed annually and planting, at minimum, an additional 44 trees each year over the next 25 years. Prioritizing planting in neighborhoods with lower canopy levels will help progress towards an equitable distribution of the urban forest. (See Section 1.4.1 to learn more about this finding).

Table 1-1. Canopy Cover Change (2012-2022)

Year	Canopy Acres	Canopy Percent
2012	2,544	18.5%
2018	2,567	18.7%
2022	3,472	25.3%

Table 1-2. Canopy Cover by Land Use

Land Use Type	Canopy Percent (2012)	Canopy Percent (2022)	Absolute Change
Circulation	7.9%	8.1%	0.2%
Community Facility	13.0%	15.3%	2.3%
Industrial Commercial Offices	15.9%	19.4%	3.5%
Mixed Use	17.7%	21.9%	4.2%
Residential	20.2%	27.5%	7.3%
Open Space	19.0%	27.9%	8.9%

1 Changes in the quality of available data also play a role in perceived canopy cover changes. Data from 2022 provide a finer resolution of 0.076 meter (0.25 U.S. survey feet) compared to the 1-meter resolution in 2012 and 0.6-meter resolution in 2018. This enhanced resolution, coupled with the use of liDAR technology in 2022, likely enabled more precise detection and measurement of tree cover.

Figure 1-3A. 2012 vs. 2022 Canopy Cover Comparison Map with Neighborhood Boundaries

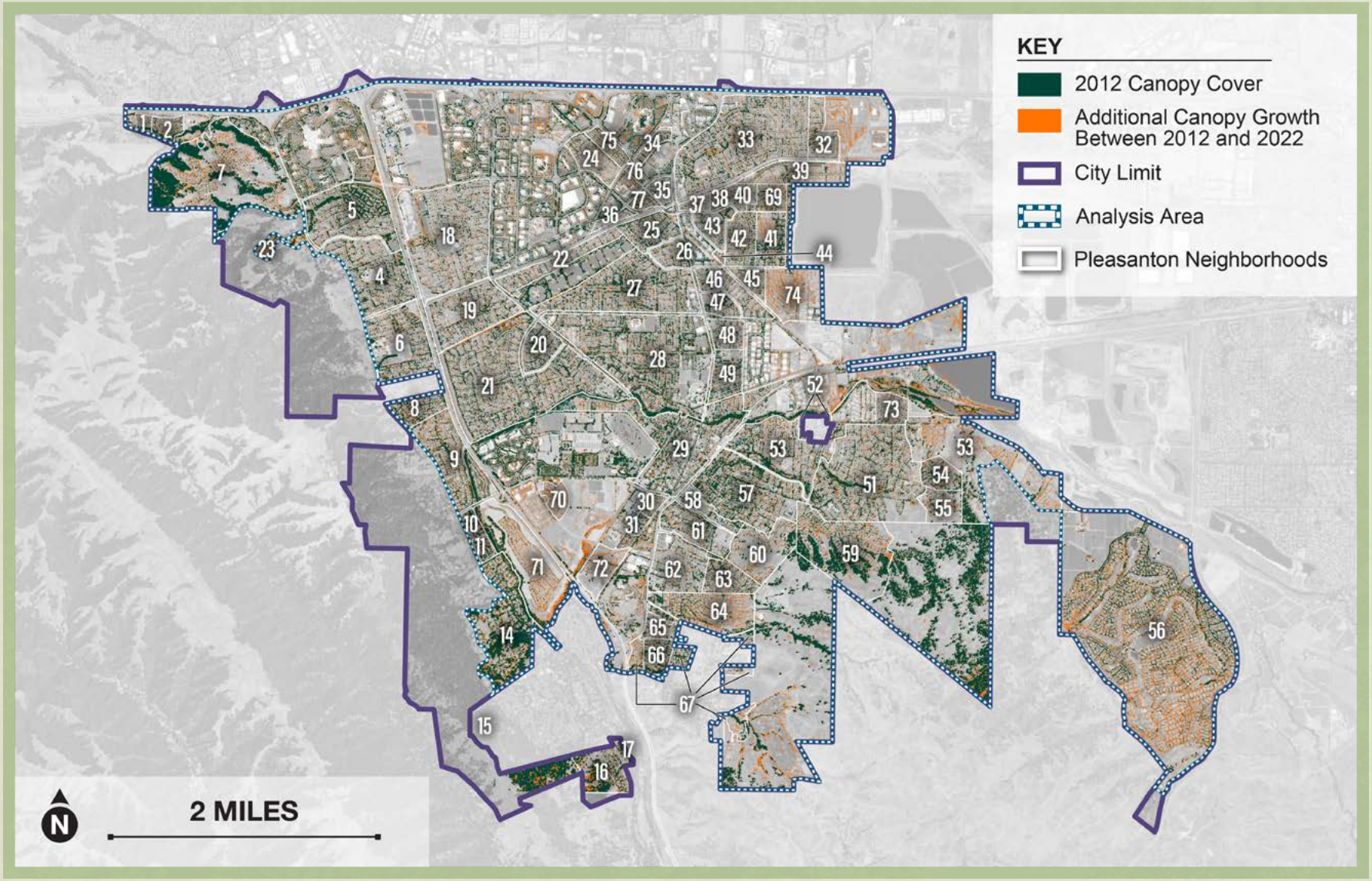


Figure 1-3B. 2012 vs. 2022 Canopy Cover Comparison Map with Neighborhood Boundaries

ID	Neighborhood Name	ID	Neighborhood Name	ID	Neighborhood Name
1	Canyon Creek	29	Downtown	54	Foxbrough Estates
2	Canyon Meadows	30	Civic Square	55	Grey Eagle Estates
4	North Muirwood	31	Ridgeview Commons	56	Ruby Hill
5	Stoneridge	32	California Somerset	57	Pleasanton Heights
6	South Muirwood	33	Pleasanton Meadows	58	Old Towne
7	The Preserve	34	Hacienda Gardens	59	Kottinger Ranch
8	Foothill Knolls	35	Las Positias Garden Homes	60	Bonde Ranch
9	Laguna Oaks	36	Verona	61	Mission Hill
10	Foothill Place	37	Belvedere	62	Mission Park
11	Laguna Vista	38	Gatewood	63	Lund Ranch
14	Golden Eagle Farms	39	Stoneridge Park	64	North Sycamore
15	Castlewood	40	Stoneridge Orchards	65	Rosepointe
16	Oak Tree Farms	41	Mohr-Martin	66	Carriage Gardens
17	Oak Tree Acres	42	Mohr Park	67	Happy Valley
18	Val Vista	43	Pleasanton Village	69	Walnut Glen
19	Valley Trails	44	Sycamore Place	70	Walnut Hills
20	Country Fair	45	Rosewood	71	Pleasant Ridge
21	Del Prado	46	Heritage Valley	72	Canyon Oaks
22	Parkside	47	Danbury Park	73	Shadow Cliffs
23	Moller Ranch	48	Amador Estates	74	Ironwood
24	Valencia/Siena/Avila	49	Jensen Tract	75	Archstone
25	Amberwood/Wood Meadows	50	California Reflections	76	Hacienda Commons
26	Willow West	51	Vintage Hills	77	Springhouse
27	Birdland	52	Remen Tract		
28	Pleasanton Valley	53	Vineyard Avenue		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Key Finding #2

Trees on Private Property Provide the Majority of the Pleasanton's Urban Forest Canopy

The canopy cover analysis reflects that 70% (2,446 acres) of the City's total canopy cover is located on private land, with the remaining 30% (1,027 acres) located on public land and right-of-way. This points to the large role that private property owners play in contributing to overall City-wide canopy cover, and the necessity to enforce policies that preserve these trees. The City understands that reaching a canopy cover goal of 25% in all residential neighborhoods will require engaging the community and providing resources to residents that will support their ability to plant, maintain, and preserve trees on private property. Another strategy to increase canopy cover on private land would be for City staff to work with developers and businesses to plant 25 trees per year, and work with residents to plant 50 trees per year for the next 25 years to reach the City's goal of an equitable canopy across the City. (See section 1.4.1 and Section 1.4.5 for more information).

How You Can Help Grow Pleasanton's Urban Forest

As Key Finding #2 pointed out, private property plays an important role for Pleasanton's urban forest. As the City focuses on ways to increase the number trees within the limited available space on public property, residents can have a big impact on the growth and care of the urban forest as well. **The City is recommending that each residential property in Pleasanton have at least one front yard tree.** If you don't already have a tree in your front yard, this is a great opportunity to get involved and play a key part in growing Pleasanton's urban forest. There are several resources in the Appendices of this document (Part 3), which cover everything from appropriate tree species selection, to how to properly plant and maintain a tree.

For more information, you can also visit the website: https://www.treesaregood.org/treeowner/plantingatree.

Key Finding #3

Increasing Species Diversity with Climate Adapted Trees Will Help Create a More Resilient Urban Forest

The City's inventory currently contains 23,722 individual trees, comprised of 114 genera, and 250 species. Of the total 250 species, 36 species making up 11,132 trees, or 40.2% of the total City inventory, are likely to be poorly adapted to Pleasanton's future climate if temperatures continue to rise as predicted by California's Fourth Climate Change Assessment (Cayan 2018). Species predicted to be poorly adapted include American sycamore, coast redwood, and maple (Acer species) which combined comprise 2,279 trees or 11.5% of the City's inventory and typically need higher levels of water and cooler temperatures to thrive. California is continually adapting to changing climate conditions with policies that restrict water use and require the removal of non-functional turf. These changes in statewide policy may make it difficult for the City to supply the supplemental irrigation these species

will need to maintain health during periods of drought and extreme heat. Trees that are in poor health and stressed are more susceptible to invasive pests and diseases. The species composition and diversity of trees in Pleasanton's urban forest play a central role in long-term urban forest health. Beginning to plant tree species that are likely to be adapted to future climate conditions and diversifying the overall makeup of the City inventory will create a more resilient urban forest against these threats. A good example of a recent issue that may become a bigger threat in the future is Dutch elm disease. In 2020, a number of American elm trees in Civic Park were affected by Dutch elm disease (see photo to right), which is a fungus carried by two species of bark beetles that initially causes dieback in the leaves and branches and may eventually lead to the death of the elm tree. By diversifying the City's downtown trees, we can better ensure that the canopy endures even if one or more species are threatened.

Key Finding #4

Additional Funding is Required for the City to Achieve its Urban Forest Goals

Over the past six years funding has increased for urban forestry-related work from $920,000 in fiscal year (FY) 2018/19, to $1.6 million in fiscal year 2023/24, showing a dedication from the City to keep pace with rising costs to provide a consistent level of tree services to its residents. Despite this increase, a further increase in funding will be needed to achieve annual service targets established in the UFMP. The annual service targets are based on achieving a 25% canopy cover goal for each residential neighborhood within Pleasanton, starting with ensuring tree removals do not outpace tree replacement and filling all vacant City-owned planting sites. The increase in tree planting efforts increases the number of trees for the City to manage, raising the level of service needed for watering new trees, pruning, removals, and risk assessment. It is estimated that the City's current budget of approximately $1.6 million would sufficiently cover costs to meet the urban forest service targets in the first year, but by year ten the City would need up to $560,000 in funding to fully cover costs due to the increased number of new trees in the City managed inventory. By the end of this Plan, in 2049, the budget difference is estimated to be $960,000 for that year (see section 1.4.5 for more information).

Key Finding #5

Need for a dedicated Urban Forestry Team

The City has identified the need for a dedicated team of professionals to be responsible for the urban forest program. Currently, the management of City-owned trees is carried out by the Landscape Architecture Office and the Parks Division. Neither of these departments have roles that are solely focused on trees, so staff must balance competing priorities with urban forest management tasks. The addition of a dedicated Urban Forestry Team that manages both public and private trees will not only help balance the workload of overextended staff but will also help to balance the workload of tasks related to the Urban Forest. These tasks would include new programs, grant writing, community outreach and education, and tracking and implementing the strategic actions of this UFMP to achieve the City's urban forest goals. Dedicated staff will allow for better tracking and analysis on how to best utilize urban forestry funds.

1.4 Status of the Urban Forest

This section provides an overview and summary of the key analyses for canopy cover (public and private trees), tree inventory (public trees only), and City staff operations and budget for the urban forest program that make up the UFMP.

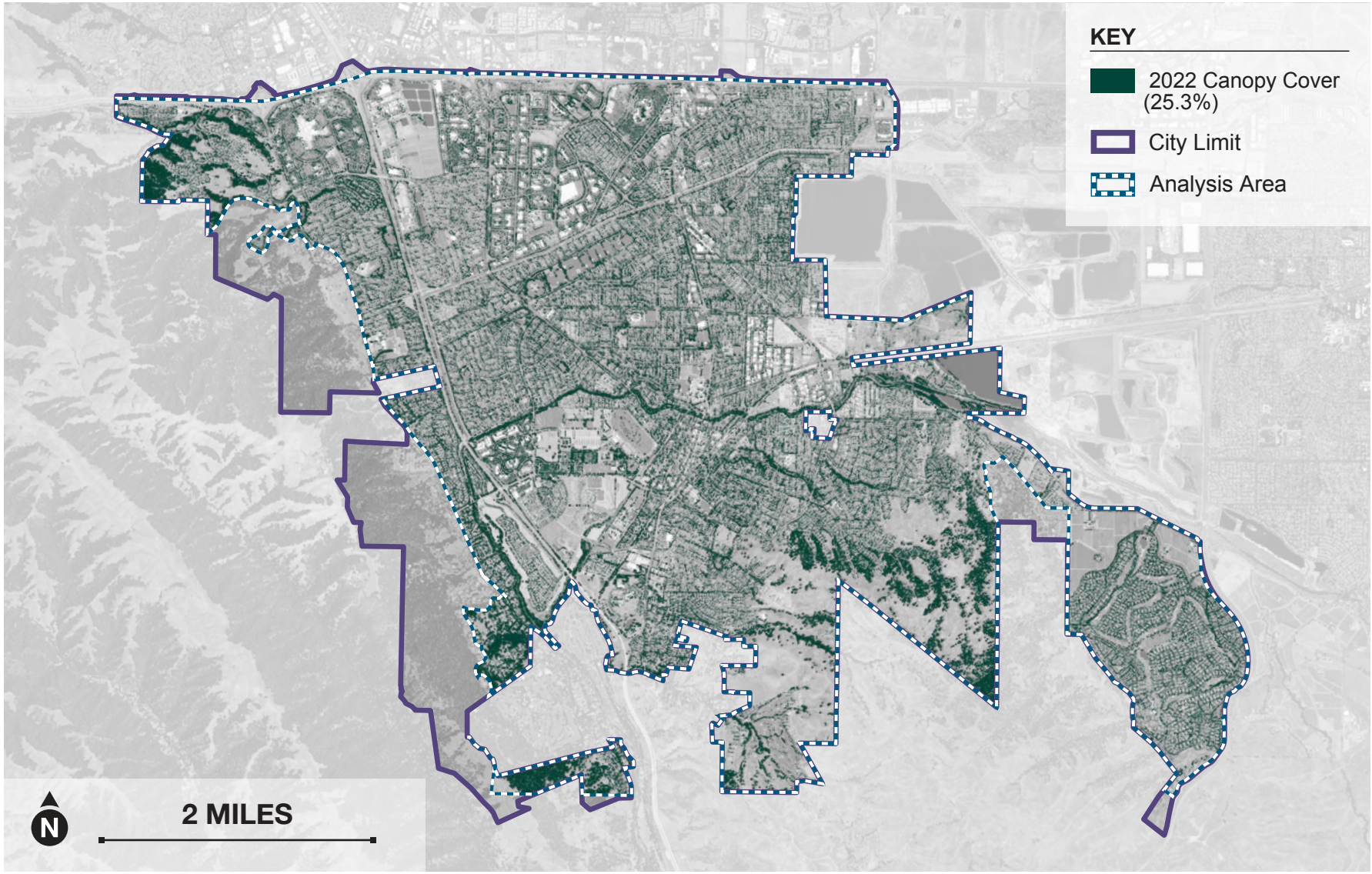
1.4.1 Canopy Cover

The City's canopy cover increased from 18.5% in 2012 to 25.3% in 2022 (the most recent year of aerial imagery and liDAR data available at the time of the analysis), reflecting a relative increase of 36.5% (**see Figure 1-4 and Table 1-1**, Canopy Cover Map and Canopy Cover Change (2012-2022). A study of tree canopy in California found that 15% of urban areas are covered by trees (McPherson, E., et al. 2017), while another study suggests that 20% is a reasonable target for a city developed in a grassland area (Nowak and Greenfield 2020). Pleasanton's 25% City-wide canopy cover can be considered high by either metric. The high level of canopy cover today shows that City-wide efforts to maintain and grow dense canopy cover are resulting in a robust urban forest.

While, the City has historically successfully grown its canopy, there are still challenges which threaten the City's ability to continue to do so and ensure that canopy cover does not decrease significantly over the next 25 years. One such challenge, as presented in the Key Findings, the City faces a challenge in replacing the number of public trees that are removed each year. New development also threatens tree canopy, particularly in the hillside areas west of Foothill Road and in East Pleasanton. Development in these densely forested regions may lead to a decrease in canopy cover. Improving tree replacement practices at the city level as well as Engaging developers and private property owners in the early planning stages of projects, along with educating the community about the updated Tree Preservation Ordinance, is crucial for maintaining and growing city-wide canopy.

The canopy analysis focuses on the City's urban areas (blue and white outline in **Figure 1-4**) rather than the entire City boundary (solid black outline in **Figure 1-4**) to monitor canopy change over time. This is because available canopy cover products, such as the 2018 dataset from the U.S. Forest Service, excludes certain non-urban and forested regions. By concentrating on the urban boundary, the City can use a data source that is updated every four years, allowing for more accurate tracking of current canopy cover and targeted management where it is most effective.

Figure 1-4. Current Canopy Cover Map

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1.4.2 Tree Inventory

The City of Pleasanton's most recent tree inventory was collected between 2023 and 2024 by Dudek. The current inventory was updated from an older inventory, originally collected by West Coast Arborists, Inc. (WCA), and includes 23,722 trees and 3,976 plantable vacant sites (three square feet and greater in size) in streets and parks. Vacant sites were considered plantable if they were labeled as a vacant site or stump by inventory collection field staff and had a tree well or parkway size equal to or greater than three feet. The City's current stocking rate is 85.6%, which is calculated by dividing the total number of existing trees by the total number of plantable sites on public land. The stocking rate does not include potential sites that need modification to be viable or sites that are not captured in current inventory data.

The variety of different tree species within the urban forest is known as species diversity. Another important related factor is species evenness, which is the relative abundances of each species. Species diversity and evenness help provide resiliency to pest and pathogen infestations through the variety of different biological and physiological characteristics of each tree species. If one tree species is especially susceptible to a particular pest, having a variation of species in the city that are more resistant or unaffected by the pest ensures that the overall urban forest will survive. Pleasanton's 23,722 trees are composed of 113 genera and 250 species. According to a recent study looking at the diversity of urban forests across multiple California cities, 250 is a typical number of species for a City with a size and climate similar to Pleasanton's (Love et al., 2022). The top 10 genera and species in Pleasanton are shown in **Figures 1-5 and 1-6.** The species diversity sustainability goals are as follows:

- **Sustainability Goal (Genus): No genus represents more than 20% of inventory.**
- **Sustainability Goal (Species): No species represents more than 10% of inventory.**

An exception to the genus and species goals above are for native species such as oaks, which may exceed the recommended sustainability goals. The City and community have put a high value on native species for the additional benefits they provide like habitat for wildlife. The oak genus *Quercus* currently makes up just over 20% of the inventory and the two most common oak species (coast live oak and valley oak) within the City make up 9.4% and 7.2%, respectively, of the overall species in the inventory. Another exception to consider for the City are tree species that already have a proven history of resiliency in Pleasanton's urban landscape, which might include species that have already survived extreme heat and drought periods, recovered from pest infestations, or that have held up to root pruning.

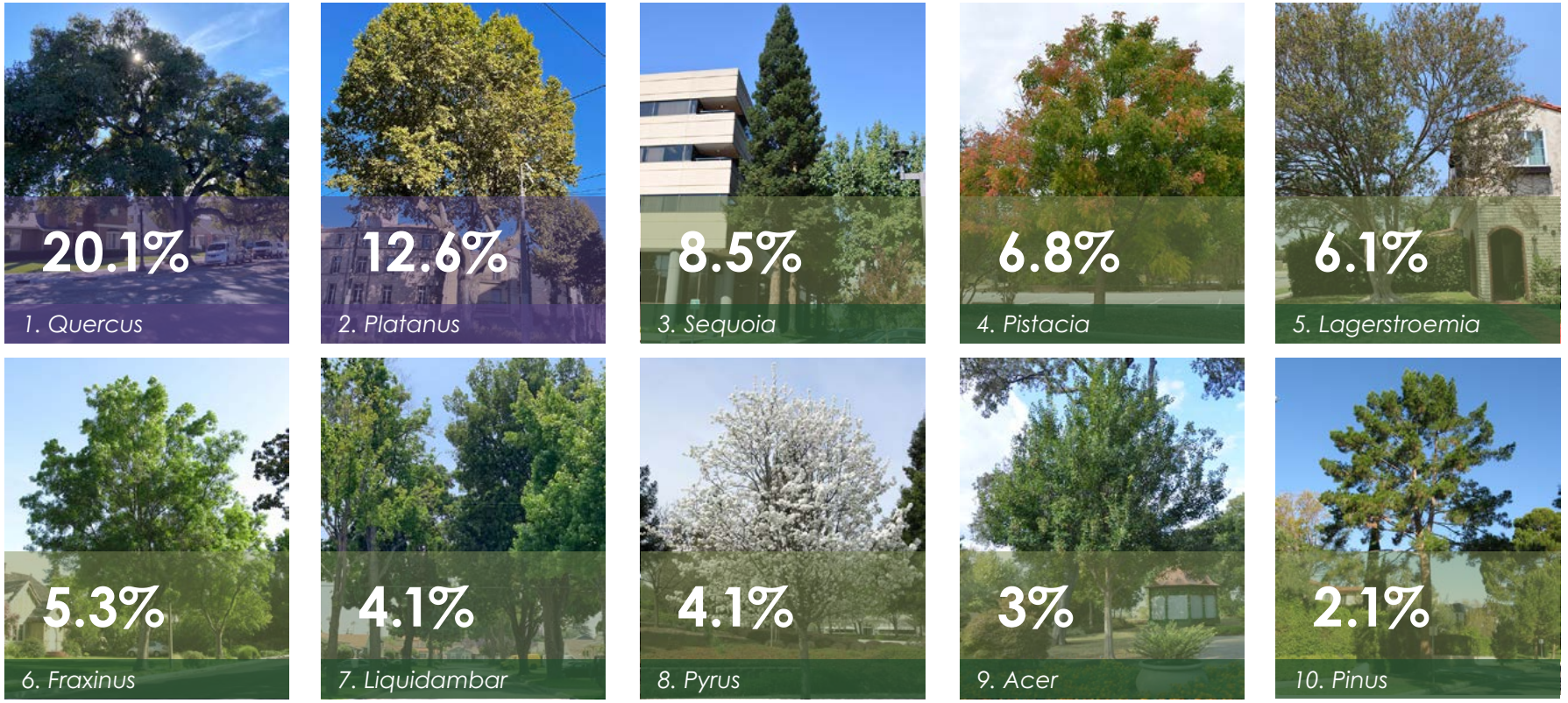
Figure 1-5. Genus Diversity

Top 10 Genera *in the* City Inventory

Sustainability Goal (Genus):
No genus represents more than 20% of inventory.

Meets Goal

Does Not Meet Goal



Source: Davey Resource Group 2021.
Note: The sustainability goal is that no genus represents more than 20% of inventory (Barker 1975).

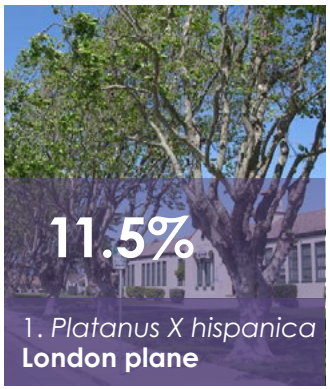
Figure 1-6. Species Diversity

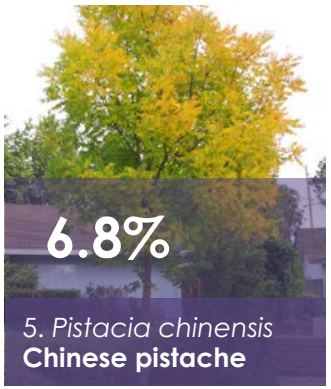
Top 10 Species *in the* City Inventory

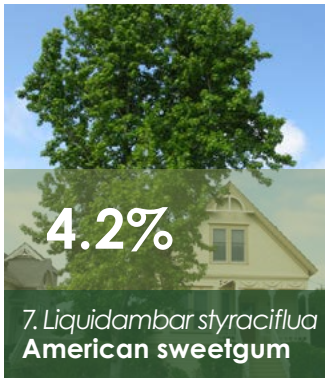
Sustainability Goal (Species):
No species represents more than 10% of inventory.

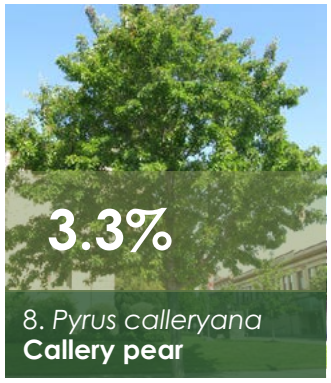
Meets Goal

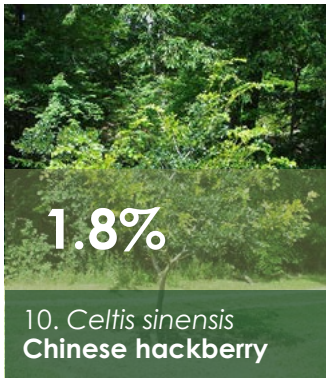
Does Not Meet Goal











Source: Davey Resource Group 2021.
Note: The sustainability goal is that no species represents more than 10% of inventory (Barker 1975).

Figure 1-7. London Plane Trees along Bernal Ave that have survived many years without irrigation

1.4.3 Environmental and Economic Benefits

Trees provide environmental benefits that hold real economic value for the City. These benefits contribute directly to the communities' quality of life and the livability of Pleasanton and so it is important to quantify them. The environmental benefits were calculated for the City-managed tree inventory using i-Tree Eco, (USFS 2022), a free software developed by the U.S. Forest Service that calculates the value of trees using the attributes of the collected tree inventory data for a specific area such as species, diameter at standard height (DSH), and health condition. The i-Tree Eco analysis utilized data from 23,301 trees in the City inventory to estimate the annual carbon sequestration, stormwater diversion, and air pollution removal benefits by publicly managed trees. These values are known as the environmental benefits provided by trees and are displayed in **Table 1-3**. Quantifying tree benefits helps frame publicly-managed trees as a City asset, and justifies the use of urban forestry funding and staffing resources to ensure the City's trees can continue providing environmental benefits for the community. **Appendix A** contains the entire i-Tree Eco report for the City's publicly managed tree inventory.

The financial value of Pleasanton's tree inventory is presented in **Table 1-4**. The replacement value also referred to as the structural value of all of Pleasanton's trees is estimated to be $99.4 million, or $4,266 per tree. This reflects the estimated cost to replace every tree in the inventory of the same species, size, condition, etc. The functional value represents the annual value of the environmental services that the trees provide

Table 1-3. Environmental Benefits Provided by City-Managed Tree Inventory

Impact	Quantity (Annually)	Translation
Carbon Sequestration (carbon dioxide removed from air by trees)	333.2 tons	Carbon removed from the City's air by the urban forest is equivalent to annual carbon emissions from 72 cars.
Avoided Runoff	1.4 million gallons	That volume of runoff would fill a football field to a depth of over four feet of water. Equivalent to the average annual water usage of 3,215 American homes.
Air Pollution Removal (ozone, sulfur dioxide, nitrogen dioxide, carbon monoxide, particulate matter < 2.5 µm)	5.3 tons	Equivalent to the annual nitrogen dioxide, carbon monoxide, and sulfur dioxide emissions from 1.6 cars

Sources: i-Tree 2024, Environmental Protection Agency's Greenhouse Gas Equivalencies Calculator

($90,900/year). In fiscal year 2023-2024, the City spent $67.62 per public tree, so for every dollar ($1) that the City's urban forestry program spends to maintain and manage public trees, the community receives an equivalent of $1.24 dollars in environmental benefits, showing that investment in the urban forest yields a positive return for community members.

Trees and Property Values

In addition to the environmental and other quality of life benefits that Pleasanton's trees provide including shade, reducing the urban heat island effect, habitat for wildlife, and improving public health (O'Brien et al., 2022), trees have also been shown to have a positive effect on property values.

A study that analyzed multiple research papers on trees and residential property values found that trees could increase the value of a home anywhere from two percent (homes with mature backyard trees) to fifteen percent (in neighborhoods with good mature tree cover), compared to homes and neighborhoods with fewer trees (Wolf 2007).

The trend shows that in most cases, the more trees there are in a neighborhood, the greater the increase in property values. Highlighting these environmental and economic benefits is one method to encourage residents and business owners to participate in urban forest programs.

Table 1-4. Financial Value of City-Managed Trees

Value	Description	Asset Amount	Per-Tree Value
Carbon Storage (10.92 tons)	Amount of Carbon held in trees	$21,200/annual	$0.91
Structural	Tree replacement cost	$99,400,000	$4,266
Functional	Value based on the services trees perform	$90,900	$3.90

Sources: City of Pleasanton Tree Inventory (Dudek 2024); i-Tree Eco (USFS 2020).

1.4.4 Urban Forest Management

1.4.4.1 Staff

The City uses a combination of in-house employees and external contractors to manage and maintain City trees. The primary work of the current tree maintenance contractor is focused on street tree pruning (62% of contracted work) and removals (10% of contracted work). In addition to maintaining parks facilities, City Parks staff are responsible for pruning trees in the City parks, debris cleanup, and for the planting and watering of new public trees in streets and parks, On the planning side, the City's Landscape Architect division, is responsible for implementing the City's Tree Preservation Ordinance, reviewing and approving tree removal permits, and providing review on tree-related aspects of development plans.

Whatever mix of staffing and contractor work the City chooses to employ must be sufficient and effective for accomplishing the City's urban forestry goals. Because Pleasanton does not currently have any full-time positions dedicated solely to tree management, this has led to more reactive tree management that contributes to the City falling short of its replanting goals each year. This suggests the City needs additional full-time staff, such as a dedicated Urban Forestry team discussed in Key Finding 5, or additional contracted labor to meet its urban forestry goals.

Figure 1-8 provides an overview of the City Departments, contractors, and utilities that are responsible for maintaining and managing Pleasanton's urban forest .

Figure 1-8. City Departments, Contractors and Utilities Responsible for Managing the Urban Forest

Public Trees

Public Works Department

Parks Division

URBAN FOREST RESPONSIBILITIES

- Pruning of City park and street trees
- Planting new City trees (Parks and Streets)
- Watering newly planted City trees
- Responsible for implementing Urban Forest Master Plan (UFMP)
- Oversee public tree operations and contracted work

City Contractors

CONTRACTED TREE WORK

- Pruning
- Removals
- Debris cleanup

Streets Division

URBAN FOREST RESPONSIBILITIES

- Inspection of trees and roots to determine cause tied to sidewalk uplift/offsets
- Oversee and conduct root pruning and tree removals for sidewalk repairs. Tree removals, if necessary, are determined and managed by the Parks Division

Landscape Architecture Division

URBAN FOREST RESPONSIBILITIES

- Implement and Enforce Tree Preservation Ordinance
- Review and approve tree removal permits
- Review development plans – tree species
- Lead the creation of the UFMP
- Public outreach, education, and communication on UFMP

Public & Private Trees

PGE

TREE-RELATED RESPONSIBILITIES

- Inspect trees for line clearance and utility fire safe

PGE Contractors

CONTRACTED TREE WORK

- Line clearance under PGE utilities and tree removal for gas lines

Private Trees

Community Development Department

Planning Division

URBAN FOREST RESPONSIBILITIES

- Review new development plans and ensure tree and landscaping standards are met

1.4.4.2 Budget

The City's urban forest funding has been increasing over the past six years to meet rising costs and the growing needs of maintaining a healthy urban forest. The six-year averages per maintenance activity is broken down by line item in **Table 1-7**. The most recent fiscal year 2023–2024 spending on the City's Urban Forest program was $1,604,187, which covered all projected urban forest maintenance and emergency work from storm events. The six-year running average does not meet the projected funding requirements if the City is to meet its future canopy cover goal of achieving 25% cover in all residential neighborhoods. Achieving this goal will require the City to fill over 1100 vacant tree sites over the next 25 years and invest more staff time and resources into tree establishment care, public outreach and education, and grant writing. See section 1.4.5 for a more detailed breakdown on the projected future budget needed to meet Pleasanton urban forestry goals.

The sources of the program budget are presented in **Table 1-8**. Most of Pleasanton's funding comes from the General Fund, with the remaining funding coming from the Urban Forestry Fund. The Urban Forestry Fund is funded through contributions from development projects within the City. The Urban Forestry Fund in **Table 1-8** is an average of the last three years. The General Fund amount in **Table 1-8** was determined by taking the six-year average total on urban forest expenditures presented in **Table 1-7**, rounded to the nearest thousand dollar, and subtracting the three-year average Urban Forestry Fund total. **Table 1-9** represents a comparison of the Pleasanton urban forest program budget using the most recent fiscal year (2023-2024) with other municipalities of a similar population and those located in Northern California.

Table 1-5. Six Year Average of Urban Forest Expenditures by Department Staff and Contractor

Urban Forest Task	Contractor Services	Department Staff	Totals	Annual Service Data
Pruning	$483,745	$91,273	$575,018	3,455 Trees Pruned
Removals	$67,834	$71,919	$139,753	226 Trees Removed
Management Activities	$16,150	$176,062	$192,212	11.6% of management time is spent on City managed trees
Storm Cleanup/ Emergency Work	$28,464	-	$28,464	Metrics contained within Trees Pruned and Trees Removed data above
Downed Tree Cleanup	-	$83,741	$83,741	Metrics contained within Trees Pruned and Trees Removed data above
Planting	-	$61,771	$61,771	151 Trees Planted
Establishment Care	-	$17,982	$17,982	254 Trees Watered
Other Expenses	$108,975		$108,975	
Total	**$705,168**	**$502,748**	**$1,207,916**	

Table 1-6. Funding Sources for Pleasanton's Urban Forestry Program

Funding Source	Amount	Percent of Total
General Fund	$1,168,000	97%
Urban Forestry fund	$40,000	3%

Table 1-7. Comparison of Municipal Urban Forest Management Funding

California City	Population	Annual Urban Forest Budget	Number of Public Managed Trees	Tree Budget Allocation per Tree
Pleasanton	74,653	$1,530,107	23,348	$65.53
Comparison with Other Northern California Municipal Program				
Chico	130,178	$1,443,653	34,874	$41.40
Dublin	72,060	$900,000	14,000	$64.29
Napa	79,039	$1,299,900	50,000	$26.00
Rancho Cordova	73,147	$329,000	3,910	$84.14
Sacramento	501,334	$6.7 million	100,000	$67.00
San Francisco	874,961	$19 million	236,000	$80.51
San Ramon	84,929	$669,248	45,606	$14.68

Annual Tree Service Data

Average annual service data from the past 5 years relating to tree maintenance and assessment are depicted in **Table 1-8**. Pleasanton currently plants around 151 trees each year and removes 226 trees per year resulting in an average net loss of 75 trees per year.

Table 1-8. Average Annual Tree Service Data

Tree Planting	Establishment Care	Tree Pruning	Tree Removal	Urban Wood Reuse
An average of 150 trees are planted annually.	Around 250 trees are watered annually.	The City currently operates a 5-year pruning cycle, with approximately 3,455 trees pruned per year.	Approximately 225 trees are removed per year.	The City uses some of the mulch generated from tree work as landscaping material for city parks and medians but does not distribute mulch to residents.

1.4.5 Funding Pleasanton's Future Urban Forest Goals

Determining How to Achieve the City's Canopy Cover Goal

Pleasanton's total canopy is currently averaging approximately 25% within the City's urban boundary. While this is considered above average for a city that was historically in a grassland setting (Nowak and Greenfield 2020), the canopy cover is not evenly distributed and falls below 25% in 26 of the 77 residential neighborhoods (**See Figure 2-3 in the Technical Assessment**). Instead of setting a city-wide goal to increase canopy cover, Pleasanton plans to focus its resources into those areas with lower canopy cover and has set a goal to achieve 25% canopy cover across all neighborhoods over the next 25-years. While this may seem like a small feat, it in fact is a huge undertaking. This section summarizes a management pathway that the City can take to achieve the goal of reaching 25% canopy cover in all residential neighborhoods over the next 25 years.

Management Pathway and Projected Budget Summary

To achieve the City's canopy cover goal, approximately 6,300 new trees will need to be planted within those 26 residential neighborhoods that are lacking the target canopy cover level (**See Table 2-6 in the Technical Assessment**). The City is proposing to achieve the canopy cover goal through a mixed private and public approach over the next 25 years which includes the following:

- Filling all 1,106 vacant tree sites in the targeted neighborhoods (44 trees per year)
- Identifying or potentially creating and planting up to 2,076 new tree sites in targeted neighborhoods (83 trees per year)
- Giving out up to 2,500 trees to residents to be planted in the targeted neighborhoods (100 trees per year)
- Developers planting a total of 625 new trees through the permit requirements of their development projects in targeted neighborhoods (25 trees per year)

This budget model also accounts for the City maintaining its standard tree services such as removing and replanting an average of 175 dead trees per year, watering and structurally pruning newly planted trees as part of a three-year establishment program and pruning an average of 4,670 mature trees per year to maintain a five-year pruning cycle.

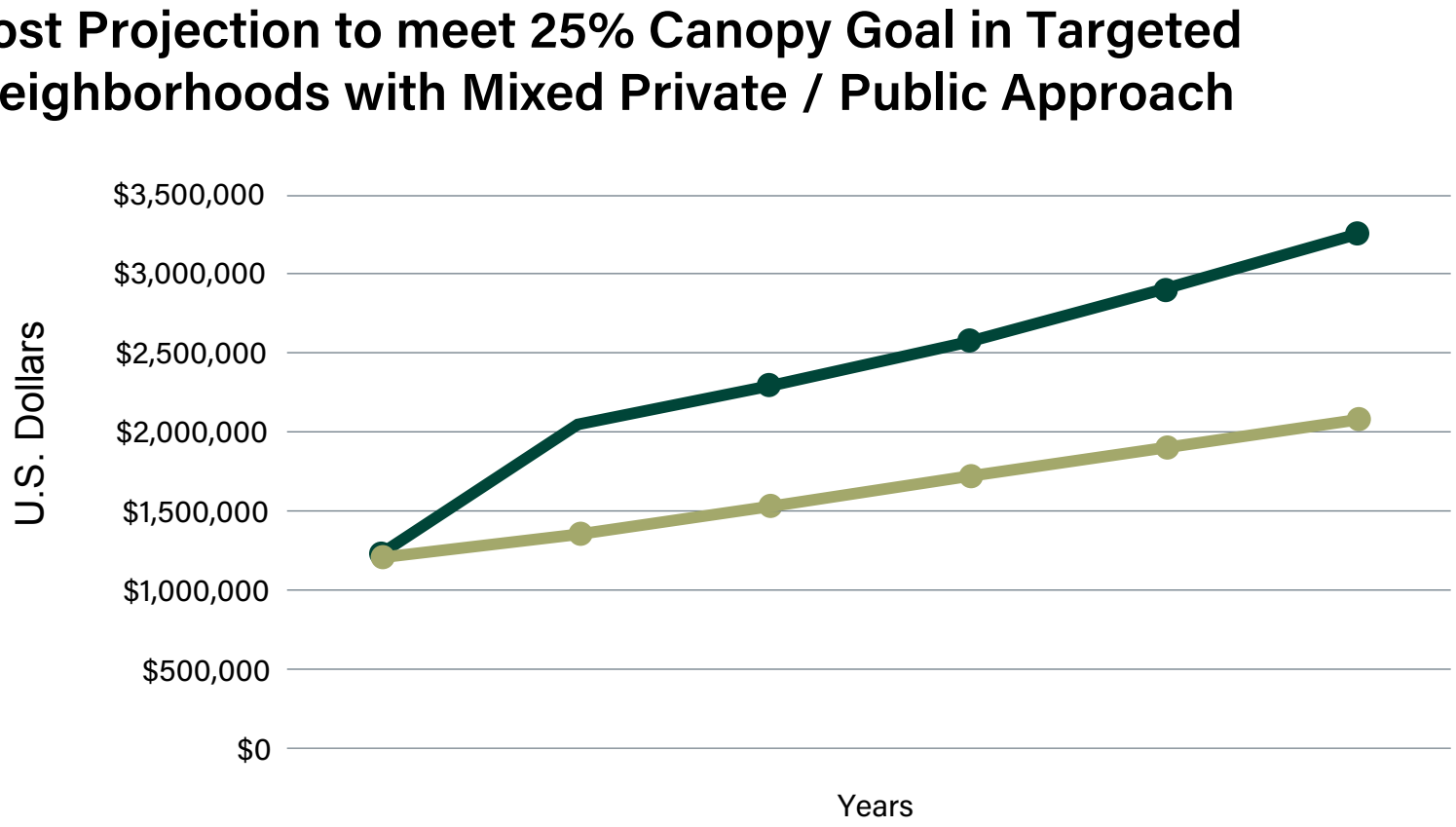
Based on these assumptions, the City would need to spend an estimated $61.6 million over the 25-year timeline, ranging from roughly $1.2 million annually at year one to $3.2 million annually at year 25, to achieve the canopy goal (Figure 1-9). While the year one projection is roughly equal in cost to the current average annual spending on the urban forestry program, as more trees are planted and needing to be maintained, the year 25 funding needed represents an estimated difference of over $1.2 million from the City's current budget, even when considering a three percent inflation adjustment. This would necessitate that the City identify potential future funding sources (**Appendix E**) to supplement the current urban forest program funding or consider alternate strategies, such as decreasing the establishment program to only one year or having the community take a larger role in the canopy cover goal.

HERE IS A BREAKDOWN OF THE OVERALL PROPOSED PLANTING EFFORT, ON AN ANNUAL BASIS:

- *100 trees given away by City to the community*
- *25 trees planted by developers and businesses*
- *44 trees planted in existing vacant sites by the City*
- *83 trees planted in newly identified or created sites by the City*
- *175 trees removed and replaced by the City*

The planting efforts described in this section total from approximately 420 to 430 trees planted annually on both public and private land throughout the City of Pleasanton.

Figure 1-9. Estimated Cost for achieving City's 25% Neighborhood Canopy Cover Goal with a Mixed Private / Public Approach



	1	5	10	15	20	25
Annual Budget Needed to Achieve Urban Forest Goal	$1,244,234	$2,046,179	$2,296,558	$2,567,265	$2,898,549	$3,248,415
Current Urban Forest Budget with 3% Annual Inflation	$1,207,916	$1,352,866	$1,534,053	$1,715,241	$1,896,428	$2,077,616

1.4.6 Highlights of Pleasanton's Trees

The City of Pleasanton has many areas with prominent tree canopy, and the following section highlights those areas to illustrate the differences in how different key areas are managed for the different types of urban forests.

1.4.6.1 Callippe Preserve Golf Course

The Callippe Preserve Golf Course located in the southern edge of the City contains 952 trees and is surrounded by open space and hiking trails. The golf course is a very different landscape than the other parks maintained by the City.

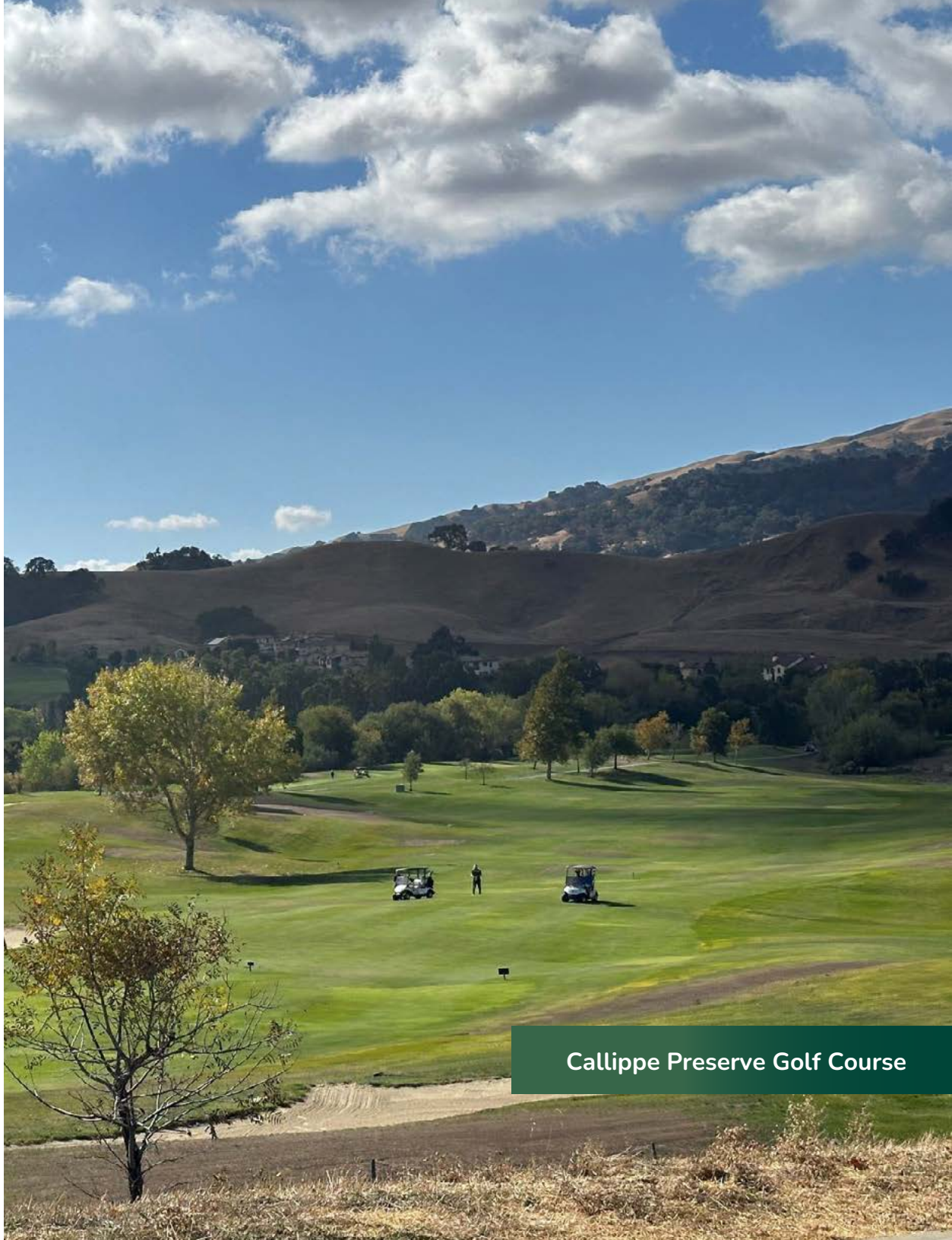
How it's Managed

The Callippe Preserve Golf Course is managed and maintained by a franchisee, CourseCo, Inc., under an Operator Agreement with the City. To protect this delicate ecosystem, the City responsibly sources its water from groundwater and the South Bay Aqueduct and from seasonal runoff collected in the pond at the bottom of the course. By focusing on water conservation and management, the City ensures the preservation of natural resources and support the ongoing health of our local wildlife. Trees are an integral part of the golf course and not only add to the aesthetics of the course but also present challenges to golfers along with separating fairways and guiding the direction of the golfer's shots. The trees on the course are primarily pruned on an as needed basis when they interfere with the playability of a hole or grow low enough to interfere with irrigation or cart paths. Dead trees are removed on a routine basis. Tree maintenance is carried out on an annual or biennial basis by a contractor, although minor pruning may be done by maintenance staff.

Many of the trees planted during the construction of the course in 2004-2006 have failed to thrive and are relatively small for their age and species. This could be due to soil conditions and/or poor initial nursery stock. The course was also planted with many cottonwood trees (*Populus fremontii*) when constructed. This species of tree is somewhat short lived in general and is not drought tolerant. Multiple drought cycles and age have taken a toll on the cottonwoods, and many will require removal in the future. As the golf course approached 25 years of service a concerted effort will be needed to plan for the removal and replacement of trees on the course while considering course design. When replanting, special effort should be given to the selection of nursery stock, planting hole preparation, and establishment.

Value to the Landscape:

Callippe Preserve Golf Course is more than just a place to play golf—it's a sanctuary for local wildlife. The City shows dedication to environmental stewardship through the course design, which creates vital habitats for a variety of wildlife species. These habitats not only add to the course's natural beauty but also help maintain the area's ecological balance. There are many native habitat areas throughout the course, often following the contours of seasonal creeks and drainages. The golf course is designated as a Certified Audubon Cooperative Sanctuary by Audubon International. To reach certification, a golf course must demonstrate that they are maintaining a high degree of environmental quality in a number of areas including environmental planning, wildlife and habitat management, outreach and education, chemical use reduction and safety, water conservation, and water quality management.



Callippe Preserve Golf Course

1.4.6.2 Ken Mercer Sports Park

The Ken Mercer Sports Park located in the center of Pleasanton at 5800 Parkside Drive and is one of the largest parks in Pleasanton at 102 acres. The park has 76.5 acres of turf grass and contains 1,577 trees. The park is the flagship of the park system and is the home of many of the City's youth sports groups. The park is a regional draw for several large softball, baseball and soccer tournaments hosted at the park each year. It also features a youth cricket pitch to support the emerging sport of cricket in the Bay Area.

How it's Managed

The park is maintained by Parks Division staff while the programming of the use of the park is overseen by the Library and Recreation Department. The crew maintaining the park is comprised of six full time staff and three part time staff, all of which are supported by a Parks Supervisor. Major maintenance activities include turfgrass management, irrigation inspections and repairs, ball field maintenance and preparation, tree work, playground maintenance and repair, and general landscape maintenance.

Value to the Landscape:

The Ken Mercer Sport Park is a great community asset. The park is not only the hub for organized youth athletics in the city but also a recreation destination for walking, jogging, and pick-up games. The many tournaments held at the park draw teams from around the region and west coast and the park is an unofficial ambassador for Pleasanton for those traveling to Pleasanton for the first time. The residents of Pleasanton are passionate about the park and have a vested interest in its maintenance and future success.

Ken Mercer Sports Park

1.4.6.3 Downtown Mainstreet Trees

Main Street is the central thoroughfare through downtown Pleasanton and is important in representing the City's character to both residents and visitors. The stretch of Main Street from Bernal Avenue to Del Valle Parkway contains 168 trees.

How it's Managed

The trees that line Main Street are pruned every two to three years or as needed if specific issues arise. The predominate species of tree on Main Street is the Purple Robe Locust (*Robinia pseudoacacia* 'Purple Robe'), which were planted in large numbers when the streetscape was revitalized several years ago. The locust trees were chosen for their fast growth, upright growth habit, and flowers. In recent years many of the locust trees have been removed due to decline and structural defects. A new tree species list specific for Main Street planting was created to guide the future tree replacements along this vital commercial corridor. The new tree species selected were chosen for their dependable track record in the City and for their size and growth habits. A variety of tree sizes were included to accommodate the often-constricted planting locations. Newly planted trees along Main Street are regularly watered during the first three years of establishment.

Value to the Landscape:

The trees that line Main Street help to create a welcoming feel and soften the look and feel of the street. The trees also define that you are entering a well-cared for commercial district. The shade provided by the trees is welcomed by visitors as they walk around visiting shops and restaurants. The importance of the shade provided by the street trees has increased in the past several years with the post COVID-19 Pandemic expansion of outdoor dining and the closure of Main Street to vehicles on designated weekends from May through September.

Downtown Mainstreet

2

CONTEXT

2.1 History

Pre-Founding

Pleasanton rests in the scenic Tri-Valley area of Alameda County, north of San Jose and east of San Francisco. Pleasanton is surrounded by the East Bay hills to the west, Altamont Hills to the east, and Diablo Range to the north and south. Historically, the Pleasanton area was located on a vast marsh complex surrounded by seasonal wetlands (**see Figure 2-1**) that supported a mix of open water ponds, freshwater marsh, and dense willow thickets, which provided habitat for a wide range of flora and fauna species.

Figure 2-1. 1880 Habitat map overlay showing where the historic marsh complex existed before the City was developed

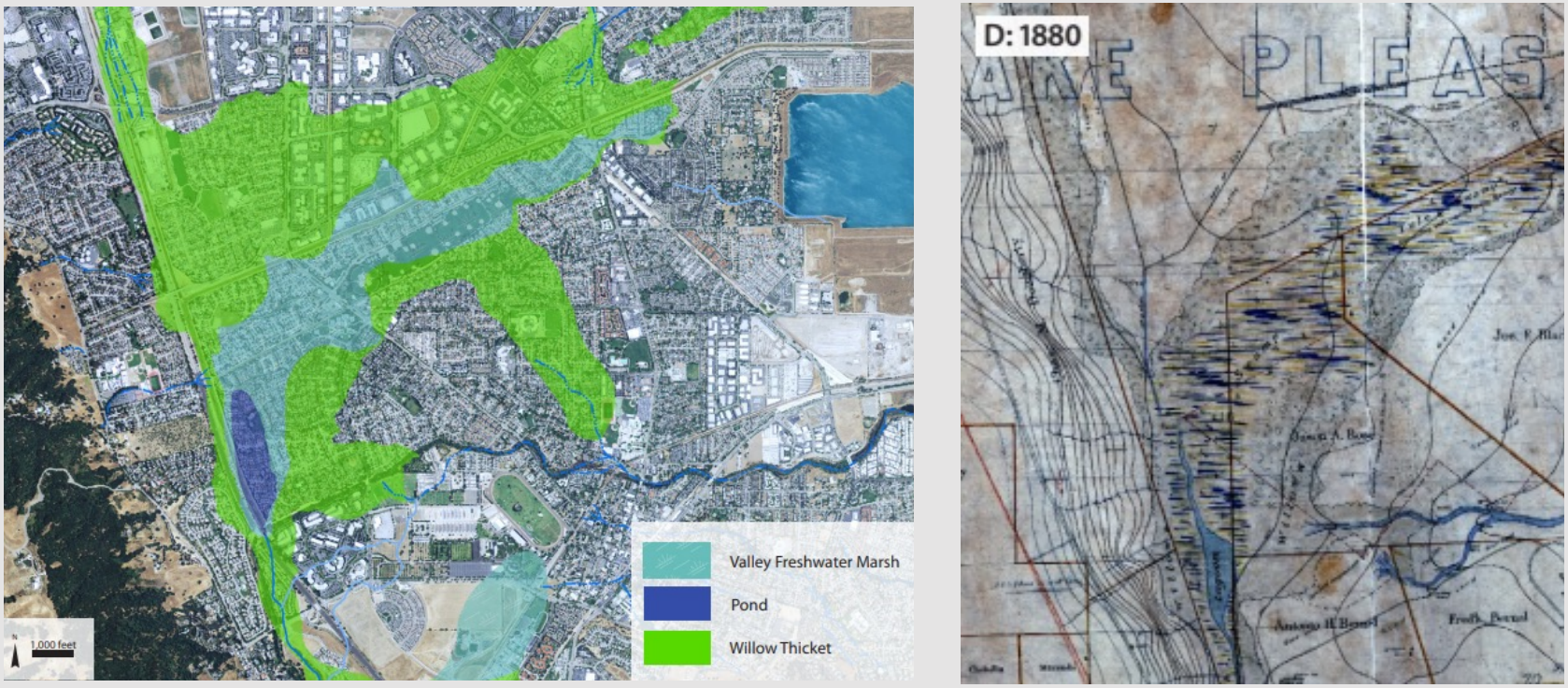


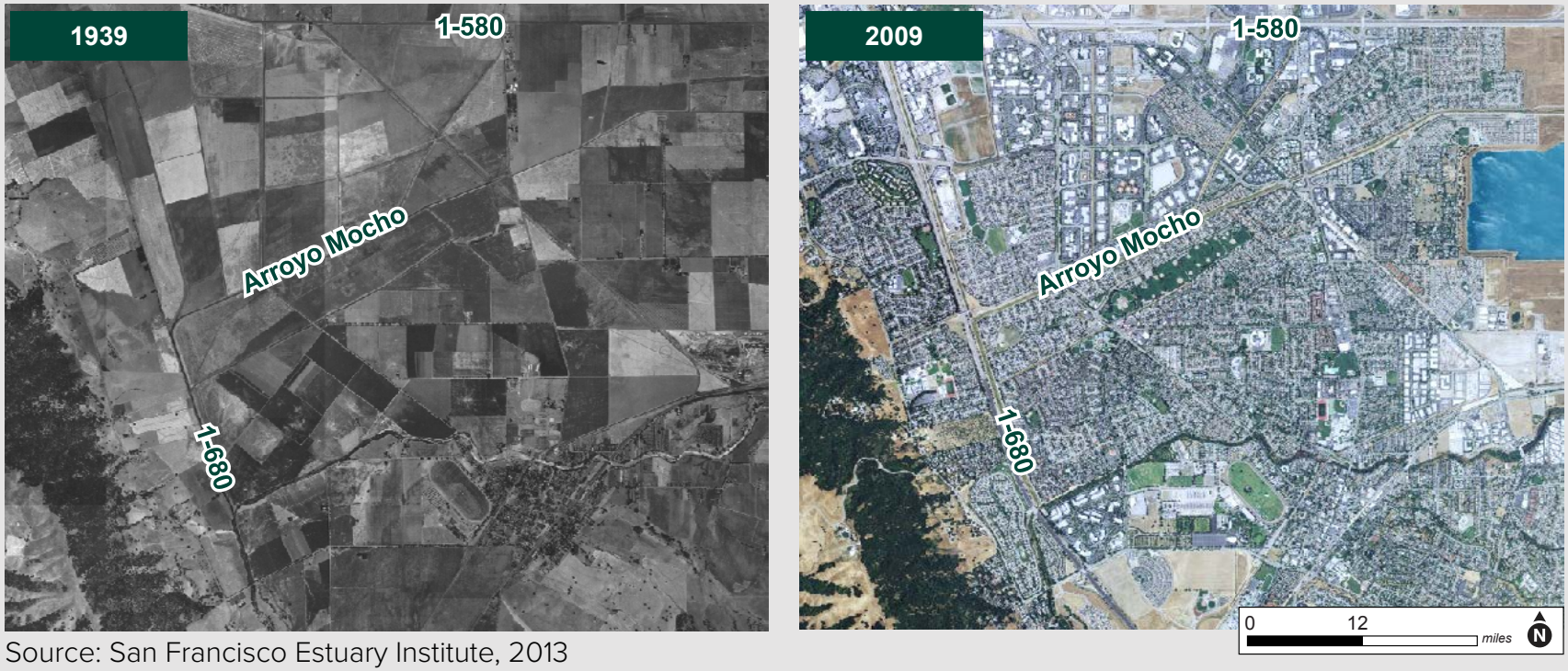
Figure 2-2. Historic photograph of Pleasanton showing scattered oaks and other trees

Source: San Francisco Estuary Institute, 2013

Founding and Development

In the mid-1800s, as agriculture took over, some marsh and wetlands were drained via a series of modified channels. The City was officially founded in 1894 and was a thriving community by 1900. By 1912, few wetlands remained in the Pleasanton area. Most trees grew along edges of the canals and written accounts document that most remnant oaks visible on historical aerial photographs (**Figure 2-2**) occur at such low densities that the area was best classified as grassland (SFEI 2013).The City likely lost additional trees growing in the grasslands as these areas were converted to ranching, dairy farms, hop fields, and vineyards. In the 1930s sand and gravel mining became an important and profitable industry, which likely would have impacted riparian trees and vegetation. Pleasanton experienced a large population boom in the 1960s and 1970s, resulting in a conversion of much of the agricultural land to residential and commercial land uses, and beginning the establishment of the City's urban forest. Another important event was the construction of the 850-acre Hacienda, a large business park, in the 1980s, which was built on old swampland, and established many trees in this important economic center of Pleasanton.

Figure 2-3. Paired aerial images from 1939 and 2009 showing the substantial land use transformation within Pleasanton.



Source: San Francisco Estuary Institute, 2013

Creation and Updates to the Tree Preservation Ordinance

The City of Pleasanton began prioritizing tree preservation when they created and adopted its first Tree Preservation Ordinance (Ordinance) in 1971. The Ordinance recognizes certain trees as “Heritage Trees” and protects them from removal, destruction or disfigurement on both public and private property. The Ordinance is responsible for protecting all trees in Pleasanton, regardless of species and is the primary reason that Pleasanton enjoys a mature canopy in many of its neighborhoods. Cited as one of the reasons Pleasantonians love their town, big trees have the Tree Preservation Ordinance to thank for protecting them over generations of change in the city.

The Ordinance has been updated a number of times since it was first adopted. In 1995, requirements were added to have pruning of Heritage trees be in accordance with ISA standards, and the penalty for removing a heritage tree without a permit was also modified to include the appraised value of the tree. In February of 1998, the permitted reasons for removal of a heritage tree were broadened and the penalty for unpermitted removal was further refined so that applicants weren't charged more than the appraised value of the tree, when those trees were appraised at a value less than $5,000 per tree. A month later in March of 1998, the Heritage Tree Board of Appeals was added to the Ordinance so that a staff decision regarding the denial of a tree removal permit could be challenged by the applicant without being required to appeal to City Council. A number of changes to the Ordinance were also made between 2011 and 2021, which are summarized in **Table 2-1** below:

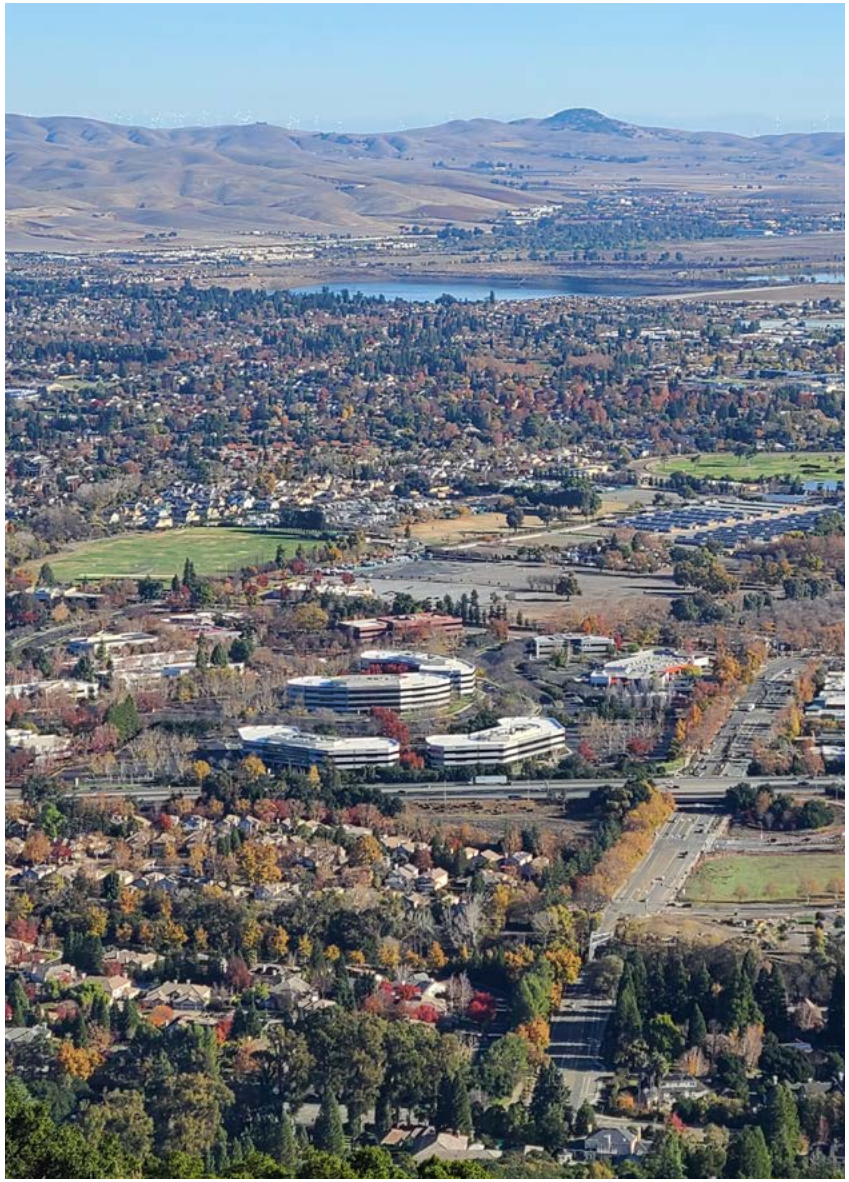
Table 2-1. Updates to the Pleasanton Tree Preservation Ordinance From 2011 to 2021

Date	Contractor Services
March 2011	Modified to state only the property owner, or the property owner's representative, can apply for removal of a heritage tree located on their property. Also provided minor clarifications to appeals process.
May 2015	Language changed to protect all heritage trees, not just native tree species, and provided staff some discretion regarding fines for illegal heritage tree removal.
August 2017	Clarified that denial of an application to remove a heritage tree can be appealed to the appeal board even when not associated with new development. Clarified tree removal requirements for new developments. Amended the appeal process to clarify rules associated with certified consulting arborists, noticing, mitigation, and penalties. Clarified the pruning guidelines
May 2018	Removed the requirement for formal written findings supporting the appeal board's decisions. Allowed appeals of penalties associated with illegal tree removal/pruning to be heard by the appeal board
May 2019	Clarified that leaf drop is not a nuisance and does not justify removal. Updated the appeal board hearing procedure. Provided discretion whether a tree report be required for new developments. Increased the bond amount paid by developers to ensure tree preservation as required by conditions of entitlement.
June 2021	Required tree planting somewhere on property when a heritage tree removal application is approved.

As the many updates above show, the municipal code for the Ordinance has been modified on a routine basis, with most modifications designed to improve and provide clarity to the process. The City has enforced the Ordinance since its adoption through joint efforts by the Community Development and Public Works Departments. It is the responsibility of these staff to properly manage and enforce the municipal code chapter equitably for each property owner no matter the circumstances. Staff strives to provide a transparent and consistent process regarding tree removal and penalties. Updates to the municipal code chapter are presented to City Council for approval as staff comes across unique situations and/or learns how to better handle the process. City staff are currently working on updating the Tree Preservation Ordinance again to provide additional protections for native trees, improve the clarity of the overall ordinance, and align penalties and fees more closely with neighboring cities.

Pleasanton Today

Pleasanton currently holds the title as a Tree City USA, an honorary recognition by the Arbor Day Foundation, as trees continue to make up an important part of its overall character and provide many environmental benefits to its residents. While 25% city-wide canopy cover is a great achievement, the City needs to increase canopy cover in all census tracts to 25% and eventually reach 30% city-wide canopy cover in order to meet its CAP 2.0 goals



2.2 Developing the Pleasanton Urban Forest Master Plan

The City of Pleasanton began the process of developing the UFMP in March of 2023. The City Landscape Architect, Landscape Architect Assistant, and Parks Division Manager were the main staff responsible for overseeing the UFMP's development and provided important insights into the City's urban forestry practices, as well as the specific City standard documents and other data sets that were crucial for analysis. These City staff also coordinated with internal and external stakeholders, and co-hosted community engagement events which shed light on the community's interactions and perspective around City trees. The following sections detail the analysis, community engagement activities, and processes involved in developing the UFMP:

2.2.1 Urban Forest Inventory and Analysis

Public Tree Inventory

Between June 2023 and March 2024, tree inventory data was collected for all City-managed trees, including along city sidewalks, medians, parks, City facilities, and the Callippe Preserve Golf Course. An accurate inventory helps determine the current condition and associated benefits of City trees and inform management recommendations.

Canopy Cover Analysis

High-resolution aerial imagery and LiDAR data from 2022 were developed into a land classification layer to determine the City's canopy cover. Canopy cover was then processed for the years 2012, 2018, and 2022 to identify total area covered by tree canopy from both City trees and private property trees over time. This analysis determined if the City's tree canopy is increasing, decreasing or remaining the same, and informed the canopy cover goals for the City of Pleasanton. See **Appendix Q** for the full methodology on the Land Cover Classification and Canopy Change Analysis

2.2.2 Analysis of Budget, Current Plans, Policies, and Ordinances

A comprehensive review was conducted of Pleasanton's urban forestry program and related plans, policies, and ordinances to better understand the effectiveness of City tree management. This review included analyses of urban forest funding, staffing policy and procedure manuals, municipal plans, tree ordinances, design guidelines, and planning documents. Knowing and understanding the

baseline conditions of these documents provides a guide for monitoring present achievements to compare to future urban forestry practices and goals.

Funding and Staffing

City staff interviews, contractor interviews and a comprehensive analysis of work records were used to discover trends, gaps, and high-cost areas that informed the Funding Pleasanton's Future Urban Forest Goals Analysis discussed in Section 1.4.6.

Policies and Ordinances

The Municipal Code Chapter 17.16 Tree Preservation (Tree Preservation Ordinance) was reviewed and updated as part of the UFMP process. The updated ordinance clarifies tree protections, tree replacement requirements, fees, and the overall tree removal permit process, and aligns with ISA Best Management Practices (BMPs).

Planning

The City of Pleasanton's General Plan, Climate Action Plan 2.0, Downtown Parks and Trails Master Plan, Pleasanton Downtown Design Guidelines, and Pleasanton best management practice details for tree planting, care, and pruning were reviewed for the development process. The UFMP directly supports these plans and provides updated urban forestry and tree-related information that should be incorporated as these plans are updated.

2.2.3 Department and Interested Party Interviews

City staff from various departments and the Hacienda general manager, who manages the largest amount of commercial private property in the city, were interviewed to further inform the urban forest analyses (**Table 2-2**). Gathering input from various groups that impact urban forestry illuminated the core values of the community and informed key development processes of the UFMP. The City Departments, their position, and other interviewees are listed below, and a summary of the responses can be found in **Appendix G**.

Community Engagement Summary

What we learned

Pleasanton residents expressed a deep appreciation for trees and the many benefits they provide. One of their main concerns lies in the persistent infrastructure conflicts caused by tree roots. This underscores the critical need for thoughtful infrastructure design and repairs, species selection, and strategic spacing in future planting efforts to avoid sidewalk uplift and underground utility problems.

Providing the community with educational resources about infrastructure conflicts, why they occur, and how they can be avoided will be beneficial in increasing community advocacy for maintaining and increasing Pleasanton's urban tree canopy while bolstering UFMP implementation.

Table 2-2. Department and Interested Party Interview Participants

Department	Position
Public Works	• Streets and Signs supervisor, Engineering Technician I
	• Engineering Technician
	• Traffic Engineer
	• Public Works Inspector
	• Parks Division
Landscape Architect Office	• Landscape Architect
Claims and Liability	• Assistant City Attorney
Public Works - Utilities	• Utilities Supervisor
Community Development	• Associate Planner
Business Representative	• Hacienda General Manager

Interview questions included the following:

- ***What are the various tree and urban forest-related functions of your role?***
- ***How does your Department/Office/business interface with City departments that manage trees?***
- ***What are the most common issues with trees that you deal with or see in your Department?***
- ***What are the greatest challenges/opportunities facing the City's urban forest?***
- ***How do you envision the City's urban forest in 25 years?***

2.2.4 Community Engagement

Community outreach was a key step in understanding and amplifying the voices of Pleasanton's community. Initiated in the Summer of 2023, community members were engaged in outreach efforts that included the following activities and educational materials:

- Two Online Pleasanton Tree Surveys which were distributed at engagement events using a QR code. The results are presented in Appendix H. (686 responses total)
- Tabling at community events including farmers markets and summer concerts with educational material describing tree benefits
- Engaging the Pleasanton Youth Commission to gather ideas on effective engagement methods for youth
- Pleasanton UFMP website (ptowntrees.org), detailing project updates, educational materials, public meeting notifications, and other community resources
- Social media outreach through the City of Pleasanton's channels
- An Urban Forest Summit to inform the community on the status of Urban Forest Management Plan, preliminary tree inventory and canopy cover analysis results, and community perspectives on the urban forest and Pleasanton's UFMP Vision Statement (approximately 50 attendees).
- Working Group (3 meetings, 8 members)

Working Group Meetings

The consultant team, seven key City staff, and one business leader formed a working group and met three times during the plan development process. These three meetings provided an opportunity for the consultant team to relay key findings to the working group, get feedback on the draft plan, and discuss and prioritize strategies and actions for addressing current issues and achieving Pleasanton's future urban forestry goals. The result was the creation of the UFMP's vision statement, guiding principles, and the strategic, implementation and monitoring plans, which can be found in the next section.

3

THE PLAN

VISION

Pleasanton's urban forest is a well-managed, vital resource providing social, economic, and environmental benefits which contribute to the community's quality of life, value, character, and beauty.

Guiding Principles

The Guiding Principles were created by the Working Group as themes that reflect the overall vision for Pleasanton's urban forest and help to direct the goals and objectives of the UFMP.

Table 3-1. Guiding Principles and Strategies

Guiding Principles

Guiding Principle	Purpose / Strategy
1 **A resilient community**	Proper species selection (right tree, right place) is fundamental to creating a thriving urban forest that can better withstand extreme heat and unpredictable weather conditions as well as threats from pests and diseases.
2 **A community invested in preserving and growing the Urban Forest**	Educating residents about the value that trees provide and the importance of protecting them through the tree preservation ordinance. Encouraging all members of the community to take a more active role in protecting, preserving, and growing the urban forest.
3 **City trees are funded and managed to maximize the benefits for the public**	The urban forest program needs to have consistent sufficient financial investment and staffing for the City to effectively manage its trees for the benefit of the public.
4 **Integrate trees from the start**	Prioritize the inclusion of trees and green spaces in the initial planning and design stages of every development project to maximize environmental benefits and reduce infrastructure conflicts. Trees should be considered essential infrastructure, not an afterthought.

The goals and actions below were created by the Working Group as specific, measurable strategies for achieving the City's vision for the urban forest. They are organized by the four Guiding Principles.

Table 3-2. Guiding Principle No. 1: A Resilient Community

GUIDING PRINCIPLE 1: *A Resilient Community* 1			
GOAL	**Action No.**	**Action**	**TIME FRAME**
1.1 - Achieve urban forest sustainability indicators of age, distribution, health condition, and relative performance index (RPI) by 2049.	**1.1A**	Every 5 years, complete an analysis of the tree inventory using iTree to calculate GHG emissions reductions from the city's tree inventory in alignment with CAP initiatives.	Ongoing / Every 5 years
	1.1B	Implement phased removal and replacement of undesirable species. As trees age and require replacement, replace with climate appropriate species identified by the Recommended Species List with the goal of planting the right tree in the right place.	Long (25 years)
1.2 - Residents will prioritize drought tolerant, climate and size appropriate species when planting on private property.	**1.2A**	Create and distribute informational materials with recommended drought tolerant and other climate appropriate species for private property to hand out and commonly attended public events, in addition to having resources on the City's website. Review private development plans to ensure properly sized trees are specified.	Short (5 years)

Table 3-2. Guiding Principle No. 1: A Resilient Community

GUIDING PRINCIPLE 1:
A Resilient Community 1

GOAL	Action No.	Action	TIME FRAME
1.3 - Maintain and grow a healthy and diverse urban forest to bring the canopy cover in each neighborhood to 25% by 2049.	**1.3A**	Annually plant 40 to 50 trees (in addition to planting replacement trees for any removals) on city-owned land and right of way.	Ongoing / Annually
	1.3B	Provide a three-year establishment care period for all newly planted trees.	Ongoing / Annually
	1.3C	Prioritize City tree planting and establishment care resources to neighborhoods with the lowest canopy cover and highest tree priority planting index scores as established in the UFMP. Achieve 25% canopy cover in all Pleasanton neighborhoods by 2049.	Long (25 years)
	1.3D	Fill at least 1,100 of the 4,000 City-managed vacant tree planting sites to create more tree-lined streets throughout Pleasanton by 2049. Assess all City managed properties to identify new viable tree planting locations and incorporate new viable sites into tree inventory.	Long (25 years)

Table 3-3. Guiding Principle No. 2: A community invested in preserving and growing the Urban Forest

GUIDING PRINCIPLE 2: *A community invested in preserving and growing the Urban Forest* 2			
GOAL	**Action No.**	**Action**	**TIME FRAME**
2.1— By 2035, engage at least 50% of residents through outreach and informational efforts on the City's UFMP and updated Tree Preservation Ordinance that is representative of all residential types and demographics within the City.	**2.1A**	Host a table with information about the benefits of the City's Urban Forest at an Arbor Day or Earth Day each year. Inform residents how they can get involved in the Urban Forest.	Ongoing / Annually
	2.1B	Maintain an information webpage for education on the City's trees, and host urban forest data like canopy cover, tree inventory statistics, current legislation and annual trees planted and removed.	Ongoing / Annually
	2.1C	Develop guidelines and educational materials for planting and siting of trees to sequester carbon and highlight other benefits like reduced energy costs in support of the Climate Action Plan 2.0.	Short (5 years)
	2.1D	Host 3 workshops over the next 5 years to inform and educate residents on the updated Tree Preservation Ordinance with a target reach at least 1,000 people.	Short (5 years)
	2.1E	Provide educational information to commercial property owners on the benefits of trees for businesses to encourage commercial property owners to plant and maintain trees.	Short (5 years)
	2.1F	Create a map that identifies the Heritage trees throughout the City.	Medium (10 to 15 years)

Table 3-3. Guiding Principle No. 2: A community invested in preserving and growing the Urban Forest

GUIDING PRINCIPLE 2:
A community invested in preserving and growing the Urban Forest 2

GOAL	Action No.	Action	TIME FRAME
2.2 – Pleasanton has established volunteer groups, HOAs and nonprofit organizations that strive to improve and maintain the urban forest on private property.	**2.2A**	The City will aim to purchase and give away up to 100 trees/ seedlings per year to community members with tree planting and care information resources at tree giveaway events.	Ongoing / Annually
	2.2B	Host a shade tree giveaway event each year, in partnership with a utility or conservation district (Zone 7 Water Agency, PGE, or Alameda County Resource Conservation District, etc.) for an annual tree giveaway.	Short (5 years) then Ongoing / Annually
	2.2C	Partner with a non-profit to increase tree planting on private property.	Short (5 years)
	2.2D	Implement a rewards or acknowledgement program for commercial properties with exemplary tree cover.	Short (5 years)
	2.2E	Reach out to HOAs, school districts and volunteer groups about opportunities to plant and maintain trees on private property.	Medium (10 to 15 years)

Table 3-4. Guiding Principle No. 3: City trees are funded and managed to maximize the benefits for the public

GUIDING PRINCIPLE 3: 3

City trees are funded and managed to maximize the benefits for the public

GOAL	Action No.	Action	TIME FRAME
3 — Develop the financial and human resources necessary to effectively manage the urban forest and implement the UFMP.	**3A**	Allocate adequate funding for the urban forest program over the next 10 years to achieve the plan goals.	Ongoing /Monthly
	3B	Maintain an updated inventory to reflect plantings, removals, pruning, and other maintenance.	Ongoing /Monthly
	3C	Explore the capacity of current positions or create an Urban Forest Division that's overseen by an Urban Forest Manager who is an arborist to coordinate with all City departments in implementation of the UFMP, urban forestry programming, and community engagement efforts (finding and applying for grants, educating public, coordinating with non-profits).	Short (5 years)
	3D	Explore potential partnerships with non-profits and community-based organizations (CBOs)to apply for grant funding (Workforce development, etc).	Short (5 years)
	3E	Explore ways to more proactively manage tree risk.	Short (5 years)
	3F	Explore developing an in-lieu fee program under the Tree Preservation Ordinance where permit applicants can pay into a mitigation fund designated for urban forest management when there is no suitable location for a mitigation/replacement tree on the applicant's property.	Short (5 years)
	3G	Expand reuse of urban wood for mulch on public land (See CAP goal E12).	Medium (10 to 15 years)

Table 3-5. Guiding Principle No. 4: Integrate trees from the start

GUIDING PRINCIPLE 4:
Integrate trees from the start 4

GOAL	Action No.	Action	TIME FRAME
4 — Trees are included in the beginning of the planning process to improve landscaped settings and habitat, maximize environmental benefits, and reduce infrastructure conflicts. Achieve a 25% increase in trees preserved through the development process after 10 years.	**4A**	Establish objective standards and streamlined procedures to review development plans, in the early stages of a project, for tree protection and planting, and mitigation measures/fees as necessary.	Short (5 years)
	4B	Discuss with the development community, increasing the landscape and hardscape shade requirements for developers from the current standard of 20% to 30% (Section 5.106.12.2 and Section 5.106.12.3).	Short (5 years)
	4C	Update the City's Tree Ordinance to include stop work orders for tree removal violations on commercial development projects.	Medium (10 to 15 years)

4

IMPLEMENTATION PLAN

The Implementation Plan below organizes the actions from the Strategic Plan into a prioritized list broken down by ongoing actions, high-priority short term actions to be completed in the first five years, medium term actions to be completed between years six through fifteen, and long-term actions to be completed between years 16 and 25.

TABLE KEY:
COST: $ Low 0-$25,000, $$ Medium ($25,000 -$50,000), $$$ High ($50,000 - $100,000)

Ongoing Actions

ACTION NO.	ACTION	COST	RESPONSIBLE PARTY	METHOD OF MEASUREMENT
1.3A	Annually plant 40 to 50 trees (in addition to planting replacement trees for any removals) on City-owned land and right-of-ways	$$	Parks	Number of new trees and replacement trees planted each year
1.3B	Provide a three-year establishment care period for all newly planted trees.	$$$	Parks	Number of trees provided with a three-year establishment care period.
2.1A	Host a table with information about the benefits of the City's Urban Forest at an Arbor Day or Earth Day each year. Inform residents how they can get involved in the Urban Forest.	$	Landscape Architecture / Parks	Number of residents from different demographics who attended information events

Ongoing Actions

ACTION NO.	ACTION	COST	RESPONSIBLE PARTY	METHOD OF MEASUREMENT
2.1B	Maintain a webpage for community input on the City's trees, and host an interactive map, urban forest data like canopy cover, tree inventory statistics, current legislation and annual trees planted and removed.	$	Landscape Architecture	Website regularly updated and checked for community input
2.2A	The City will aim to purchase and give away up to 100 trees per year with tree planting and care information resources at tree giveaway events.	$$$	Landscape Architecture	Number of trees given away annually
3A	Allocate adequate funding for the urban forest program over the next 10 years to achieve the plan goals.	$$$	Landscape Architecture / Parks/City Council and Management	Annual funding should include additional resources for tree maintenance, arborist review for planning and development; implementation of the updated tree ordinance, and an expanded tree planting program over and above current funding levels. Funding may also go to a new position for an Urban Forest Manager.
3B	Maintain an updated inventory to reflect plantings, removals, pruning, and other maintenance.	$$	Landscape Architecture / Parks	City's tree inventory updated on a yearly basis at minimum.

Years 1–5 / High Priority Short Term Actions

ACTION NO.	ACTION	COST	RESPONSIBLE PARTY	METHOD OF MEASUREMENT
1.1A	Every 5 years, complete an analysis of the tree inventory using iTree to calculate GHG emissions reductions from the city's tree inventory in alignment with CAP initiatives.	$	Landscape Architecture	Results from analysis reported every 5 years
1.2A	In addition to having resources on the City's website, create and distribute informational materials with recommended drought tolerant and other climate appropriate species for private property to hand out and commonly attended public events.	$	Landscape Architecture	Number of new drought tolerant species planted on private property.
2.1C	Develop guidelines and educational materials for planting and siting of trees to sequester carbon and highlight other benefits like reduced energy costs in support of the Climate Action Plan 2.0	$	Landscape Architecture	Materials developed and distributed
2.1D	Host 3 workshops over the next 5 years to inform and educate residents on the updated Tree Preservation Ordinance with a target to reach at least 1000 people.	$	Landscape Architecture	Number of residents who attended information events

Years 1–5 / High Priority Short Term Actions

ACTION NO.	ACTION	COST	RESPONSIBLE PARTY	METHOD OF MEASUREMENT
2.1E	Provide educational information to commercial property owners on the benefits of trees for businesses to encourage commercial property owners to plant and maintain trees.	$	Landscape Architecture & Commercial Property Owners	Informational materials developed and number of commercial property owners reached.
2.2B	Host a shade tree giveaway event each year, in partnership with a utility or conservation district (EBMUD, Zone 7 Water Agency, PGE, or Alameda County other Resource Conservation District, etc.) for an annual tree giveaway.	$$	Landscape Architecture	Tree giveaway events hosted, or number of trees given away. Promotion of appropriate species to plant under utilities
2.2C	Partner with a non-profit to increase tree planting on private property	$	Landscape Architecture	Number of non-profits partnered with
2.2D	Implement a rewards or acknowledgement program for commercial properties with exemplary tree cover.	$$	Landscape Architecture	Establishment of rewards/ acknowledgement program, and number of rewards/ acknowledgements given

Years 1–5 / High Priority Short Term Actions

ACTION NO.	ACTION	COST	RESPONSIBLE PARTY	METHOD OF MEASUREMENT
3C	Explore the capacity of current positions or create an Urban Forest Team that's overseen by a dedicated Urban Forest Manager who is a certified arborist to coordinate with all City departments in implementation of the UFMP, urban forestry programming, and community engagement efforts. (Finding and applying for grants, educating public, coordinating with non-profits)	$$$	Landscape Architecture	The Urban Forest Manager position will be responsible for internal City coordination and external engagement with the community on tree management activities. The Urban Forest Manager will ensure progress towards the vision and goals of the UFMP, including increased public engagement, seeking grant and other funding, and developing ongoing partnerships with interested parties like non-profit organizations, the school district, and large landowners for urban forest efforts. This position should be placed in Public Works, which currently manages program budget and tree maintenance contractors
3D	Explore potential partnerships with non-profits and CBOs to apply for grant funding (e.g. Living Arroyos).	$	Landscape Architecture	Number of dollars of funding secured, or partnerships built with other non-profits
3E	The City will explore ways to more proactively manage tree risk.	$$	Landscape Architecture / Parks	Number of trees assessed for risk annually. No backlog of tree maintenance requests at the end of each month.

Years 1–5 / High Priority Short Term Actions

ACTION NO.	ACTION	COST	RESPONSIBLE PARTY	METHOD OF MEASUREMENT
3F	Explore developing an in-lieu fee program under the Tree Preservation Ordinance where permit applicants can pay into a mitigation fund designated for urban forest management when there is no suitable location for a mitigation/replacement tree on the applicant's property.	$$	Landscape Architecture	Adoption of an in-lieu fee program under the Tree Preservation Ordinance
4A	Establish objective standards and streamlined procedures to review development plans, in the early stages of a project, for tree protection and planting, and mitigation measures/fees as necessary.	$	Landscape Architecture	Objective standards developed for plan review process
4B	Discuss with the development community, increasing the landscape and hardscape shade requirements for developers from the current standard of 20% to 30% (Section 5.106.12.2 and Section 5.106.12.3).	$	Landscape Architecture	Number of meetings hosted with the development community.
4C	Update the City's Tree Ordinance to include stop work orders for tree removal violations on all development projects.	$	Landscape Architecture	Updated Ordinance and enforcement of stop work orders for violations

Years 6–15 / Medium Term Actions

ACTION NO.	ACTION	COST	RESPONSIBLE PARTY	METHOD OF MEASUREMENT
2.1F	Create a map that identifies the Heritage trees throughout the City.	$$	Landscape Architecture	Map developed and updated quarterly
2.2E	Reach out to HOAs, school districts, and volunteer groups about opportunities to plant and maintain trees on private property.	$	Landscape Architecture	Number of HOAs, school districts, and volunteer groups contacted / Number of trees planted on private property through these voluntary efforts.
3G	Expand reuse of urban wood for mulch on public land (See CAP goal E12).	$$	Landscape Architecture / Parks	Increased use of urban wood mulch on public land

Years 16–25 / Long Term Actions

ACTION NO.	ACTION	COST	RESPONSIBLE PARTY	METHOD OF MEASUREMENT
1.1B	Implement phased removal and replacement of undesirable species. As trees age and require replacement, replace with climate appropriate species identified by the Recommended Species List with the goal of planting the right tree in the right place.	$$$	Landscape Architecture / Parks	Achieve a City-managed tree inventory comprising no more than 105% of one species, 210% of one genus with the exception of native species.
1.3C	Prioritize City tree planting and establishment care resources to neighborhoods/census tracts with the lowest canopy cover and highest tree priority planting index scores as established in the UFMP. Achieve a 25% canopy cover in all census tracts by 2049.	$$	Parks	Percent increase in canopy cover in the census tracts with the highest tree priority planting index scores. Measure city-wide and Census tract canopy cover every 5 years using the latest published U.S. Forest Service canopy cover data. https://data.fs.usda.gov/geodata/rastergateway/treecanopycover/
1.3D	Fill at least 1,100 of the 4,000 City-managed viable tree planting sites and identify to create more tree-lined streets throughout Pleasanton. Assess all City managed properties to identify new viable tree planting locations and incorporate new viable sites into tree inventory.	$$$	Parks	Number of vacant viable tree planting sites filled.

5

MONITORING PLAN

5.1 Assessing Our Progress

The City needs a way to track actions completed within the Implementation Plan to measure the progress it makes towards its urban forest goals. The Community Assessment and Goal- Setting Tool was created by the Vibrant Cities Lab just for this purpose. Vibrant Cities Lab is a collaboration of partners which includes the United States Forest Service, American Forests, and the National Association of Regional Councils, and serves as an o nline hub of urban forest and tree research, best practices, and planning tools (http://vibrantcitieslab.com). The Assessment and Goal-Setting Tool is based on research of urban forest sustainability and establishes criteria and indicators to measure urban forest sustainability. The tool is used as an assessment to define the City's current state of a specific area of urban forest sustainability. The user decides what the City's current state of the metric is, and then sets where the goal metric should be. Each metric is assigned a point value, and the City is assigned a "Total Current Score" and a "Gap Score," or how far off the current state is from the desired goal. A city that has a gap score between 20 to 40 is not far from achieving the goals of its urban forest program. Conversely, gap scores of 40+ indicates that a City is still implementing programs and policies to close the gap and develop a sustainable urban forest.

Pleasanton's first assessment was conducted on September 8, 2024, by City staff and the consultant team. **Table 5-1** reflects the results from the first assessment, which set the baseline for the City's "Total Current Score" at its pre-UFMP metrics. Staff used Vibrant Cities Lab's rating descriptions to determine Pleasanton's status (prior to the UFMP process) for the various categories and then chose the goals they want to achieve in each category to determine the gap between the two ratings.

Based on the first assessment, the City has a current rating of 17, with a gap score of 78. The City's UFMP monitoring plan should be based around the Vibrant Cities Lab Community Assessment and Goal Setting Tool and be retaken each year to track, measure, and highlight progress. The assessment can also be used to demonstrate successes and justify additional funding asks to City Council. After the completion of this UFMP, several of the responses that had significant gaps such as the lack of a UFMP (5) and an urban tree canopy assessment (5), will have already been achieved.

Table 5-1. Tree Canopy Goal Assessment Summary (Pre-UFMP)

Category	Current Rating		Goal Rating		Gap
Canopy cover	The existing canopy cover for entire municipality is 75%-100% of the desired canopy.	2	The existing canopy is >75%-100% of desired – at individual neighborhood level as well as overall municipality.	4	2
Inventory	Complete or sample-based inventory of publicly owned trees.	1	Inventory guides planning, management decisions.	2	1
Assessment Methodology	Low-resolution and/or point-based sampling of canopy cover using aerial photographs or satellite imagery, for example i-Tree Canopy.	2	Complete, detailed, and spatially explicit, high-resolution Urban Tree Canopy (UTC) assessment based on enhanced data (such as LIDAR) – accompanied by comprehensive set of goals by land use and other parameters; all utilized effectively to drive urban forest and green infrastructure policy and practice municipality-wide and at neighborhood or smaller management level.	4	2
Publicly owned trees	Complete tree inventory that includes detailed tree condition ratings.	2	Complete GIS tree inventory that includes detailed tree condition and risk ratings.	4	2
Publicly owned natural areas	Level and type of public use documented.	2	Ecological structure and function of all natural areas assessed and documented.	3	1
Private property trees	Aerial, point-based assessment – capturing extent and location.	1	Bottom-up sample-based assessment, as well as basic aerial view	4	3

Table 5-1. Tree Canopy Goal Assessment Summary (Pre-UFMP)

Category	Current Rating		Goal Rating		Gap
Relative performance index by species	No information.	-1	All of the six most common species have higher RPI scores than the average of all species in the community	4	5
Use of native vegetation	No coordinated focus on native vegetation.	-1	Use of native species is encouraged on a project-appropriate basis in all areas;	2	
Align municipal departments	Municipal departments/agencies recognize potential conflicts and reach out to urban forest managers on an ad hoc basis – and vice versa.	1	Invasive species are recognized and discouraged on public and private lands	4	
Engage residents in planning and implementation	Little or no citizen involvement or neighborhood action.	-1	Municipal policy implemented by formal interdepartmental/ interagency working teams on all municipal projects.		
Environmental equity	Planting and outreach includes attention to low canopy neighborhoods or areas.	1	Proactive outreach and coordination efforts by municipality and NGO partners resulting in widespread citizen involvement and structured engagement among diverse neighborhood groups.	4	
Trees acknowledged as vital community resource	Trees generally recognized as important and beneficial.	1	Equitable planting and outreach at the neighborhood level is guided by strong	4	5

Table 5-1. Tree Canopy Goal Assessment Summary (Pre-UFMP)

Category	Current Rating		Goal Rating		Gap
Engage large private landowners and institutions	Large private landholders are generally uninformed about urban forest issues and opportunities.	-1	Resident involvement in low canopy/high need areas. Residents participate actively in	4	
All utilities work with municipality, employ best management practices	Utilities take actions impacting urban forest with no municipal coordination.	1	Identifying needs for their neighborhoods, planning, implementation and monitoring	4	
Green industry embraces goals, high standards	Little or no cooperation among segments of green industry or awareness of municipality-wide urban forest goals and objectives.	-1	Urban forest recognized as vital to the community's environmental, social, and economic well-being.	3	
Develop urban forest management plan	No urban forest management plan	-1	Tree management plans developed with input from community, and public access to the property's forest resource.	4	3
Cooperative planning with other municipalities	Municipalities have no interaction with each other or the broader region. No regional planning or coordination on urban forestry.	-1	Utilities are included in informal municipal teams that communicate regularly and	3	5

Table 5-1. Tree Canopy Goal Assessment Summary (Pre-UFMP)

Category	Current Rating		Goal Rating		Gap
Forestry plan integrated into other municipal plans	Urban forestry plan mentions how it could meet other municipal objectives or inform other planning efforts.	-1	Collaborate on a project-specific basis.	2	
Urban forestry program capacity	Team has capacity in terms of trained staff and equipment to achieve many of the goals of the urban forest management plan.	2	Shared vision and goals and extensive committed partnerships in place. Solid adherence to high professional standards, and commitment to credentialing and continuing education.	2	
Municipality-wide urban forestry funding	Ad hoc funding for emergency, reactive management.	1	New or recent urban forest and green infrastructure management plan which targets public tree planting sites, protection and maintenance based on assessment of anticipated benefits ranging from stormwater to heat island mitigation, public health, etc.	4	5
Growing site suitability	Appropriate tree species are considered in site selection	1	Some urban forest planning and cooperation across municipalities and regional agencies.	4	4
Tree establishment and maintenance	Some tree planting and establishment occurs, but with limited overall municipality-wide planning and post-planting care.	-1	Once completed, urban forestry planning team works with other agencies to align	2	3

Table 5-1. Tree Canopy Goal Assessment Summary (Pre-UFMP)

Category	Current Rating		Goal Rating		Gap
Management of publicly owned natural areas	Only reactive management to facilitate public use, e.g. hazard abatement, trail maintenance.	1	Current and future objectives.	4	
Policies that foster good urban forestry on private lands	Strong tree protection ordinance focused on maintaining mature trees with effective procedures.	1	Team has capacity and will in the future work to achieve all goals of the urban forest management plan, to maintain the resource over time, and adapt management as circumstances change.	2	
Tree protection policy and enforcement	Policies include construction standards for on-site tree protection, establishment and maintenance. Conforms to and references ANSI Standards for arboricultural practices (A300), safety (Z133), and nursery stock (Z60.1), as well as applicable ISA BMPs.	3	Sustained, long-term funding from multiple municipal, regional, and/or state agencies, along with private sources to implement a comprehensive urban forest management plan and provide for maintenance and adaptive management as circumstances change.	2	2
Monitoring	Monitoring is infrequent and reactive to reported changes in tree health, site condition.	1	Municipality-wide guidelines for the improvement of planting site conditions and selection of suitable species.	4	3

Table 5-1. Tree Canopy Goal Assessment Summary (Pre-UFMP)

Category	Current Rating		Goal Rating		Gap
Tree risk management	Citizens and city staff report tree safety issues to the forestry department or manager (e.g., 3-1-1 system, online form, etc.). System tracks the time between damage report and mitigation action.	1	Comprehensive tree establishment plan provides concrete guidance on most of the following criteria: site selection, size, age class, diversity of species, native plant choice, planting protocols, and young tree care.	4	1
Urban wood and green waste utilization	While most green waste does not go to landfill, uses are limited to chips or mulch.	1	Management plan in place for each publicly owned natural area to facilitate appropriate public use.	4	5
Management of publicly owned natural areas	Only reactive management to facilitate public use, e.g. hazard abatement, trail maintenance.	1	Policies regarding stormwater, site and subdivision planning, zoning and other issues that affect private forests are included in management plan.	4	1
Policies that foster good urban forestry on private lands	Strong tree protection ordinance focused on maintaining mature trees with effective procedures.	1	Integrated municipality-wide policies and practices to protect public and private trees, consistently enforced and with penalties sufficient to deter violations.	2	1
Tree protection policy and enforcement	Policies include construction standards for on-site tree protection, establishment and maintenance. Conforms to and references ANSI Standards for arboricultural practices (A300), safety (Z133), and nursery stock (Z60.1), as well as applicable ISA BMPs.	3	Monitoring adheres to the standards and protocols established by the Urban Tree Growth and Longevity network.	4	1

Table 5-1. Tree Canopy Goal Assessment Summary (Pre-UFMP)

Category	Current Rating		Goal Rating		Gap
Monitoring	Monitoring is infrequent and reactive to reported changes in tree health, site condition.	1	Includes "better" but with TRAQ-qualified contractors on city projects. Educate tree care companies and public about importance of TRAQ qualifications.	4	3
Tree risk management	Citizens and city staff report tree safety issues to the forestry department or manager (e.g., 3-1-1 system, online form, etc.). System tracks the time between damage report and mitigation action.	1	Comprehensive plan and processes in place to utilize all green waste one way or another, to the fullest extent possible.	4	3
Urban wood and green waste utilization	While most green waste does not go to landfill, uses are limited to chips or mulch.	1	Comprehensive plan and processes in place to utilize all green waste one way or another, to the fullest extent possible.	4	3
	Total Current Score	**17**	**Total Goal Rating**	**95**	
				Total Gap Score	**78**