City of San Leandro, CA

TREE MASTER PLAN

PlanIT Geo™
developers of TreePlotter

November 2024

PROJECT TEAM

PlanIT Geo™
developers of TreePlotter

URBAN FOREST INNOVATIONS INC

Arboreal

DATA COLLECTION: INVENTORY

TJ Wood

Director of Field Services

Inventory Project Manager

Managed over 1M trees inventoried

Rocky Yosek

Field Services Operations & Account Manager

Inventory Logistics & Coordination

1,000's of trees inventoried

ANALYSIS, ENGAGEMENT, PLANNING & GIS TEAM

Chris Peiffer

Director of Urban Forestry Strategy

Senior Advisor & Strategist

50+ planning projects

Alex Hancock

Director of Urban Forestry Consulting

UFMP & Overall Project Manager

Policy, Planning, & Sustainability expert

Morgan Garner

GIS Project Manager

GIS & Urban Forestry Analyst

Project mgmt, coordination, maps

AGENDA

1 Project Overview

2 Tree Inventory

3 Urban Heat Assessment

4 Community Input

5 Recommendations

6 Next Steps

"Urban trees and forests are considered integral to the sustainability of cities as a whole. Yet, sustainable urban forests are not born, they are made. They do not arise at random, but result from a community-wide commitment to their creation and management."

CLARK ET AL.: A MODEL OF URBAN FOREST SUSTAINABILITY

PROJECT OVERVIEW

BENEFITS OF URBAN FORESTS

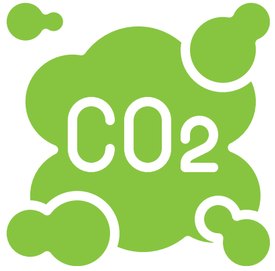
Clean the air and breathe easier

Reduce stress and improve the quality of life

Mitigate urban heat impacts

Save energy and lower energy costs for buildings

Bolster property values



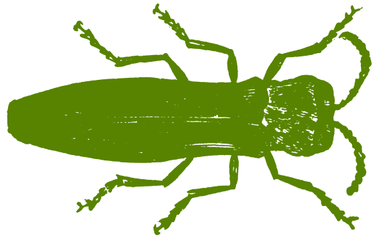
Positively influence climate to ensure sustainability

Protect wildlife and restore ecosystems

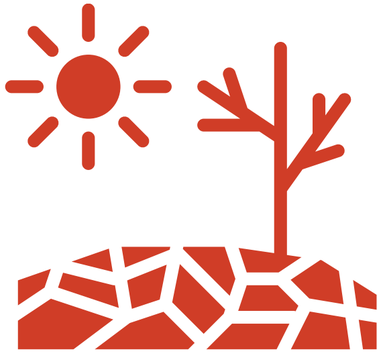
Boost local and regional economies

PROJECT OVERVIEW

RISKS FACING URBAN FORESTS

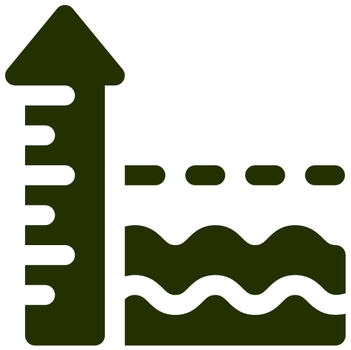


Pests and diseases



Drought

Urban sprawl



Sea level rise

Wildfires

Invasive species

Storms and disasters

Program resources

PROJECT OVERVIEW

PURPOSE & OBJECTIVES

- Integration with City plans (i.e., General Plan & CAP)
- Redress inequities with services & canopy benefits
- Climate resiliency through canopy growth, preservation, and sustainable practices
- Standards & Best Practices for maintenance, planting, preservation, data management

PROJECT OVERVIEW

PROJECT TIMELINE

PROJECT KICK-OFF

June 2022

RESEARCH & ANALYSIS

June – December 2023

COMMUNITY ENGAGEMENT

August 2022 – July 2023

STRATEGY DEVELOPMENT

June – November 2023

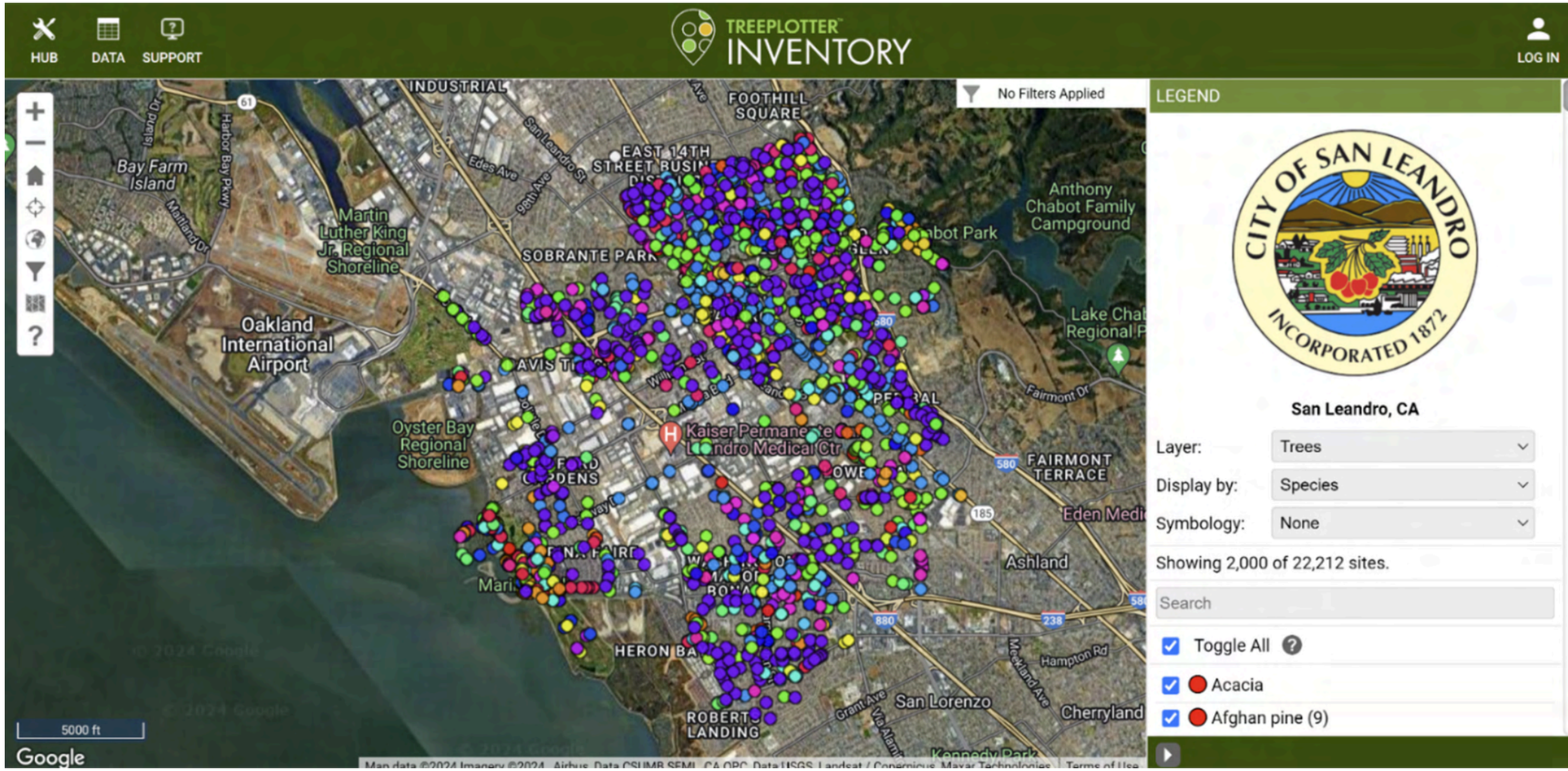
FINAL PLAN

November 2023 – **November 2024**

TREE INVENTORY

TreePlotter INVENTORY application: https://www.pg-cloud.com/SanLeandroCA/

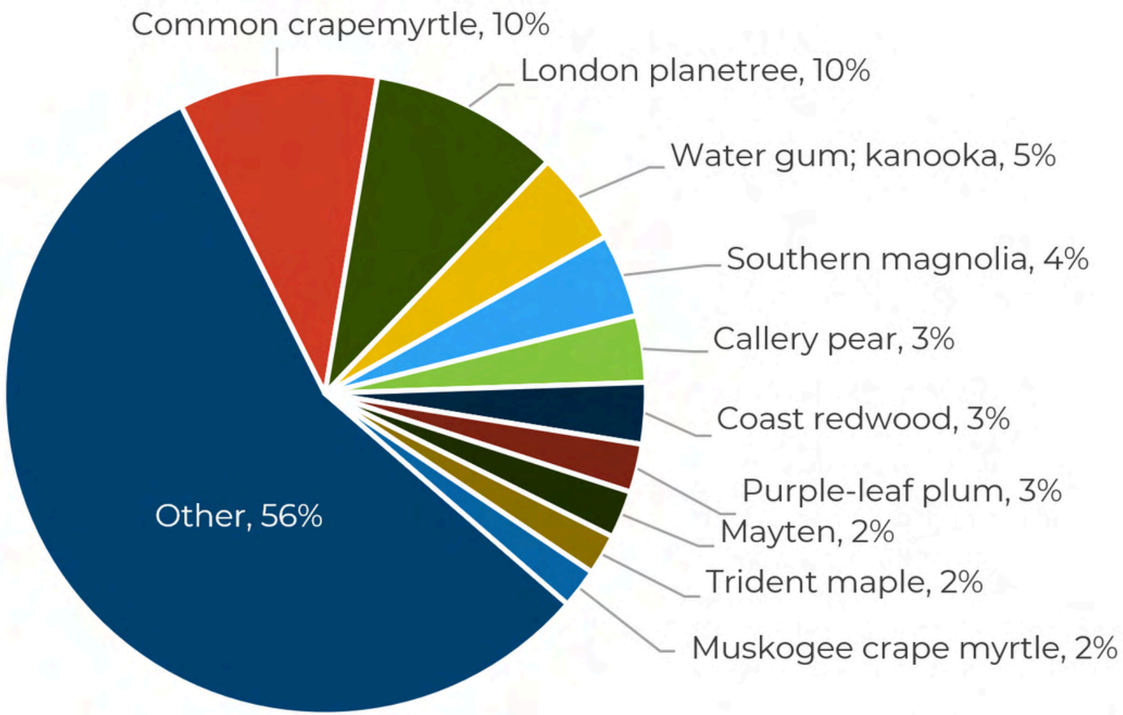
- 22,265 total points
- 17,859 trees
- 4,032 planting sites
- 16,140 street trees
- 1,719 park trees
- July - Dec 2022



TREE INVENTORY

URBAN TREE DIVERSITY

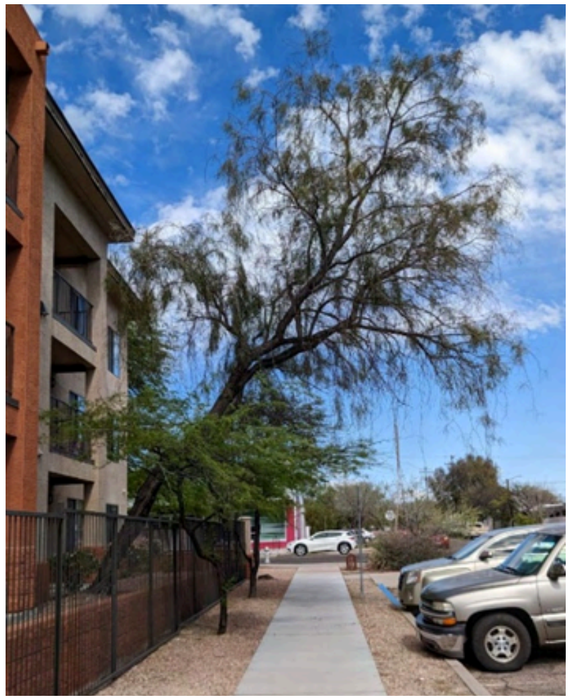
52 unique genera
373 unique species



TREE INVENTORY

CONDITION, OBSERVATIONS, AND MAINTENANCE NEEDS

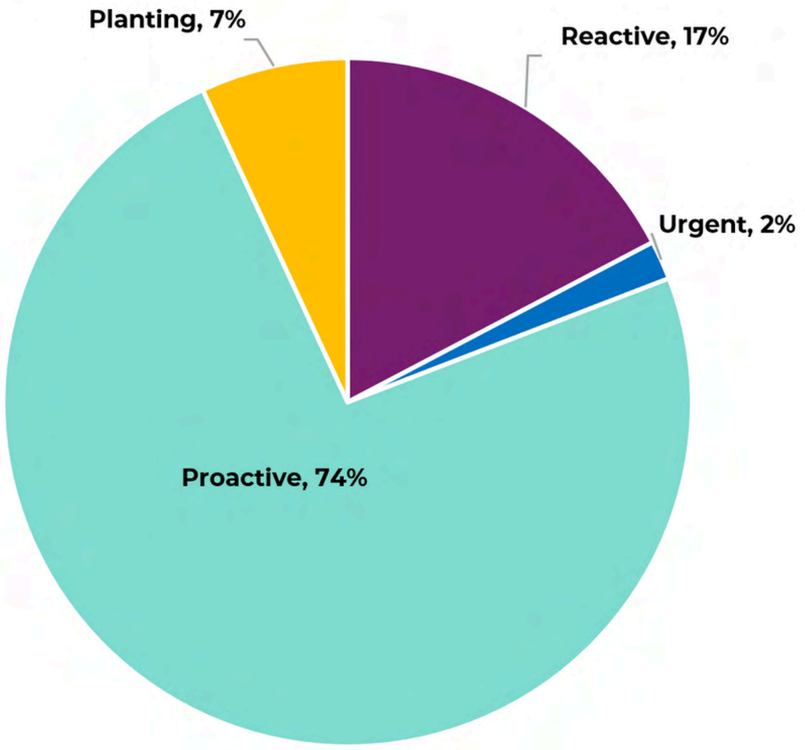
STREET TREE OBSERVATIONS			
Observation	**Trees #**	**Trees %**	**Description**
Poor Structure	3705	19%	Tree exhibits poor structure for the species.
Crown Dieback	3663	18%	Condition in which the branches in the tree crown die from the tips toward the center.
Hardscape Damage	2896	15%	Tree has caused damage to nearby hardscape that needs to be repaired.
Improperly Pruned	2725	14%	Tree has been improperly pruned.
Poor Location	1889	9%	Location is not suitable for the tree.
All Other	5,069	25%	
Total	19,947	100%	

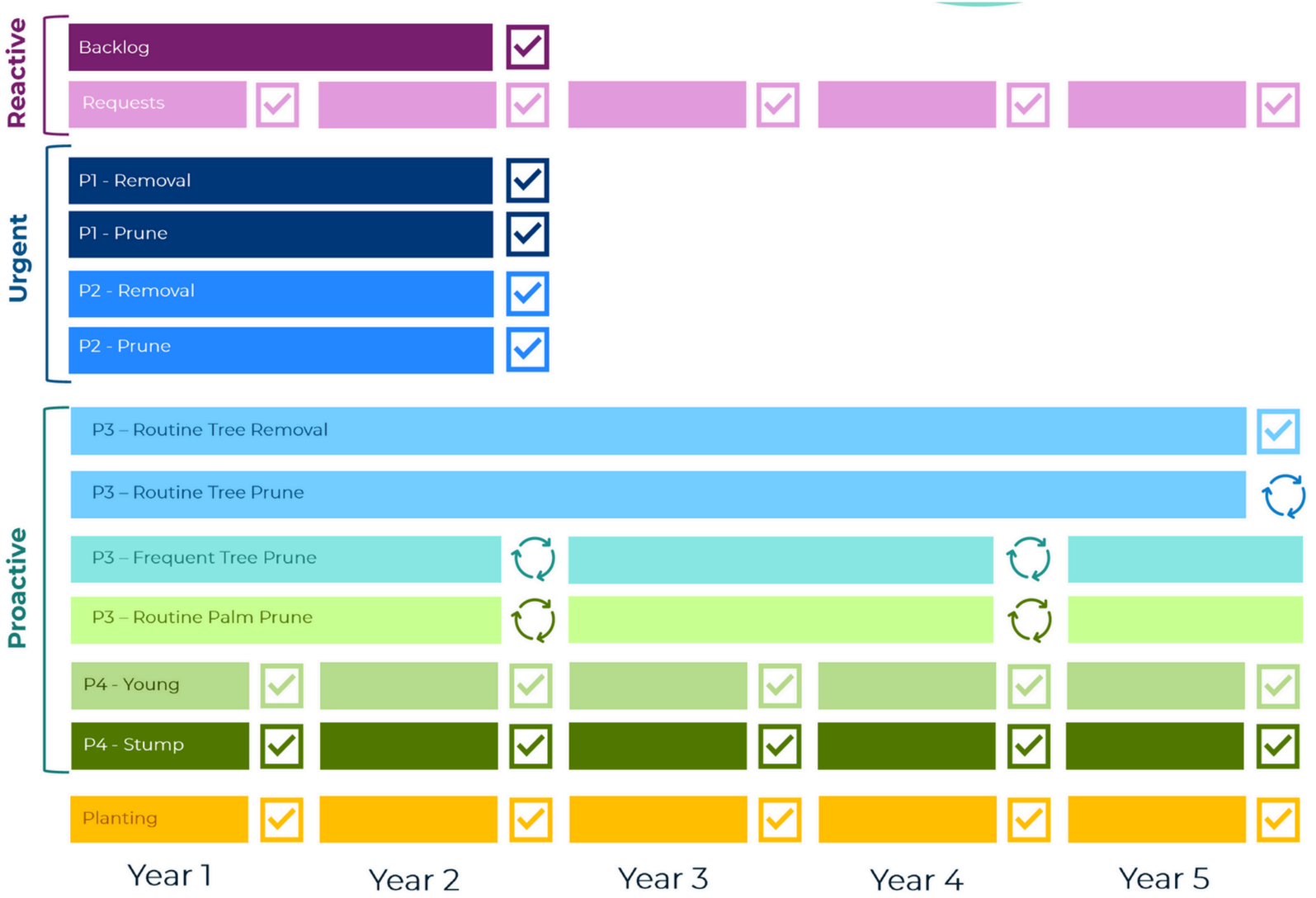


CONDITION RATINGS OF SAN LEANDRO'S TREES		
Excellent	1.0%	Trees show no structural or biotic defects. They represent a tree that is 100% healthy.
Very Good	5.7%	Trees show miniscule defects.
Good	47.6%	Trees show minor structural or biotic defects and represent a tree that is below 100% but above 80% healthy
Fair	37.2%	Trees show structural or biotic defects and represent a tree that is below 80% but above 50% healthy
Poor	5.8%	Trees show significant structural or biotic defects and represent a tree that is below 50% healthy often with serious decline
Critical	1.2%	Trees are in serious decline with little chance of survival
Dead	1.5%	Trees are dead and have no live growth on them

TREE MANAGEMENT PROGRAM

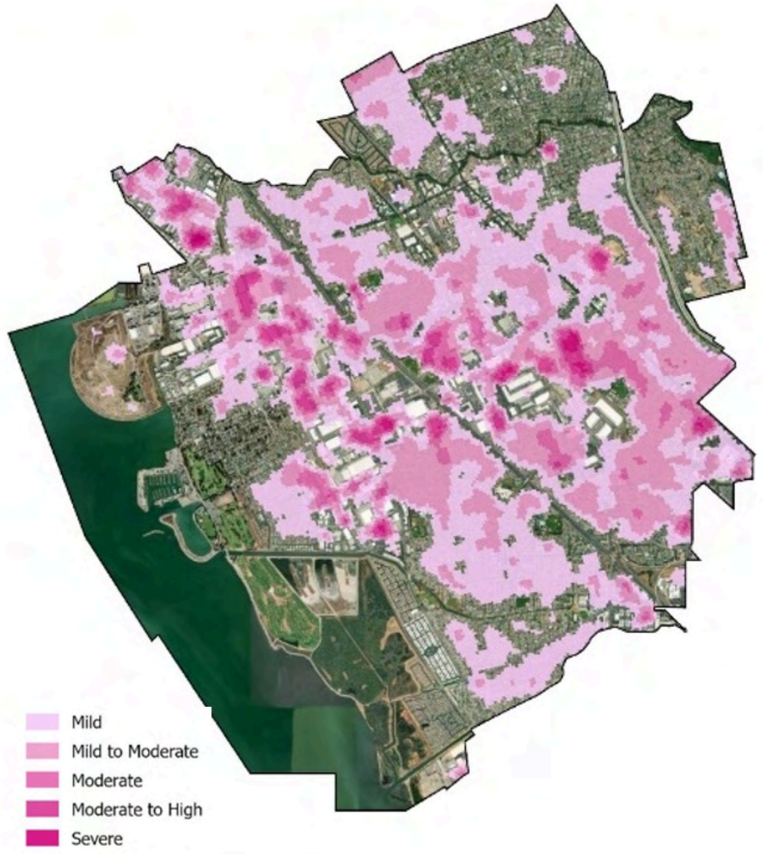
5-YEAR TREE MAINTENANCE CYCLE



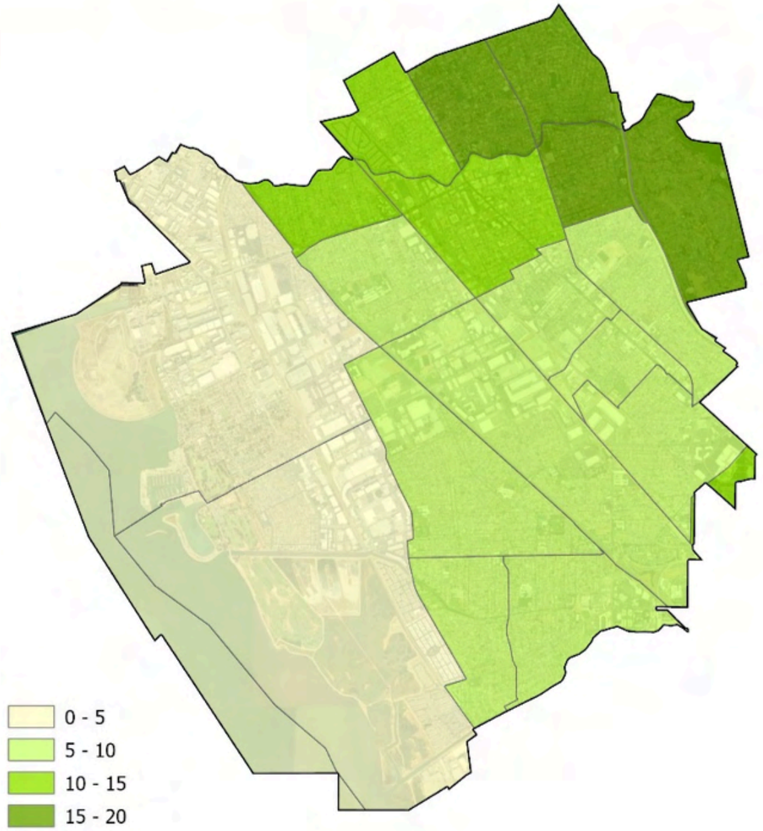


URBAN HEAT ASSESSMENT

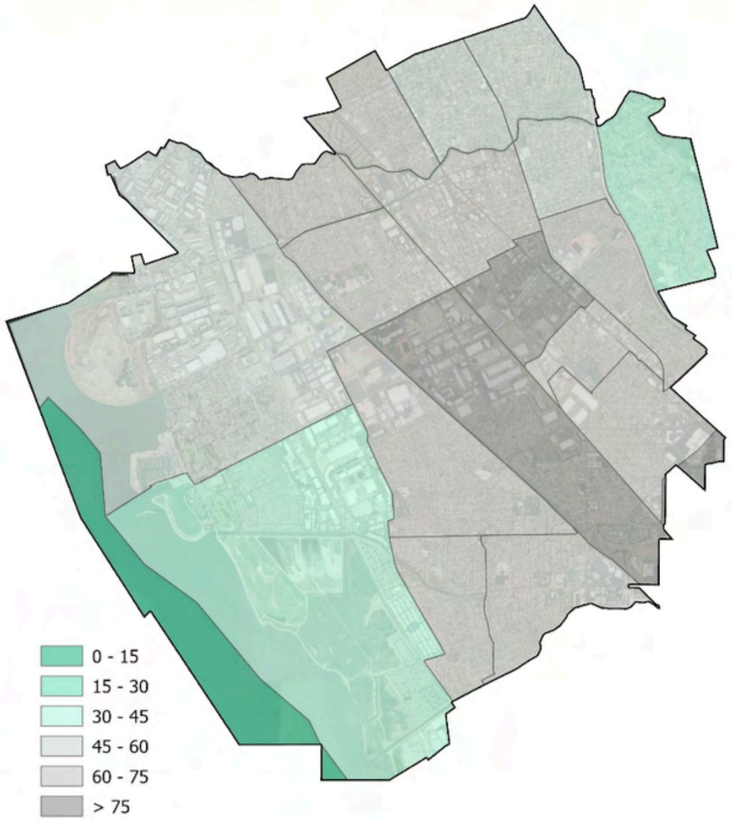
URBAN HEAT SEVERITY



URBAN TREE CANOPY

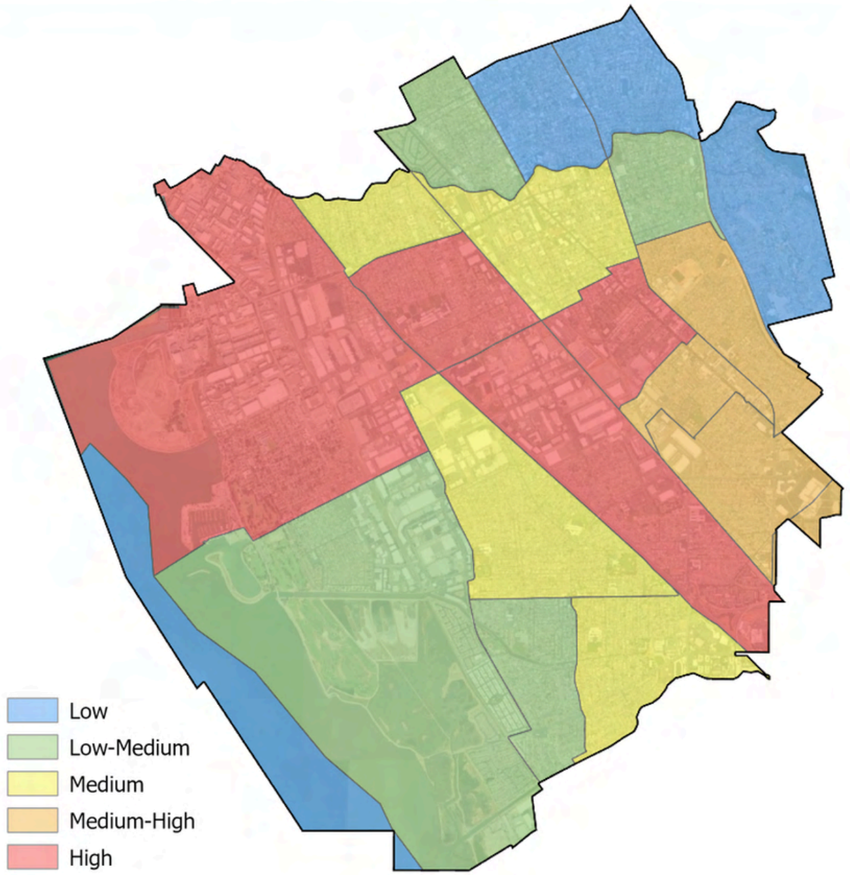


IMPERVIOUS SURFACES

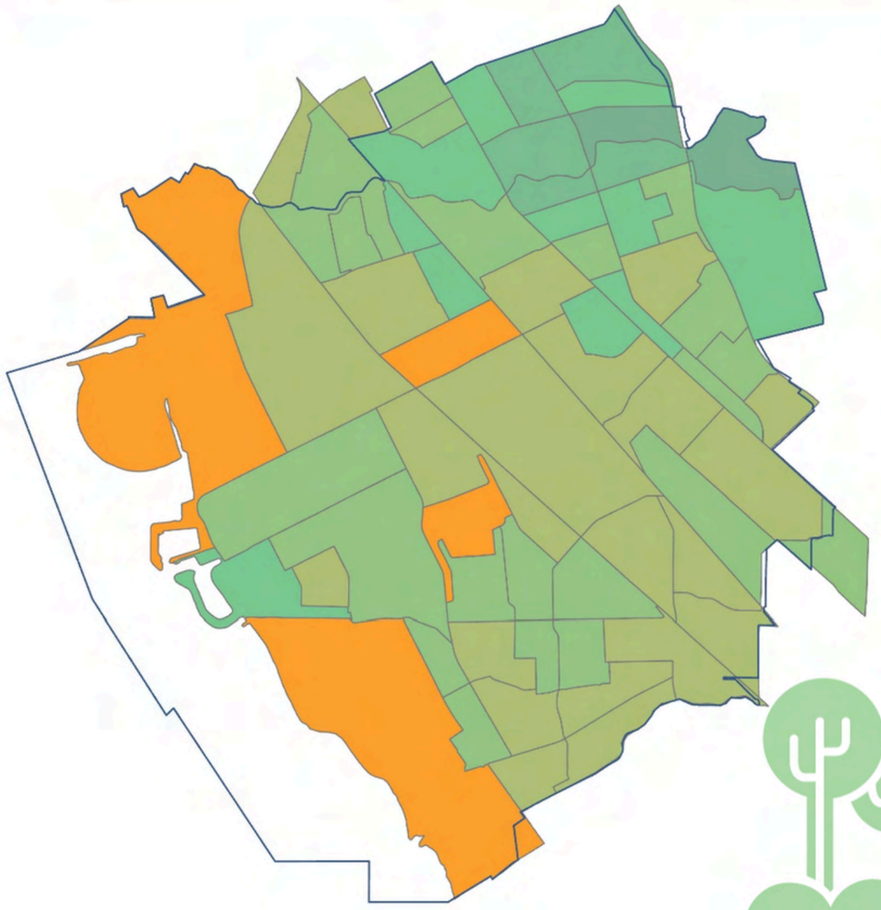


URBAN HEAT ASSESSMENT

PLANTING PRIORITIZATION



San Leandro's Tree Equity Score



Tree Equity Scores

- U.S. Census Block Groups
- <75
- 75 - 80
- 80 - 85
- 85 - 90
- 90 - 95
- 95 - 100

San Leandro
Tree Equity Score

82

out of 100

COMMUNITY INPUT

- Web & Social Media
- 2 Community Surveys
- Public Meetings & Events
- Tree Plantings (2022 – 2024)
- Focus Groups & Workshops
  - External stakeholders
  - City Staff

COMMUNITY INPUT

CALFIRE GRANT AND TREE PLANTING EVENTS

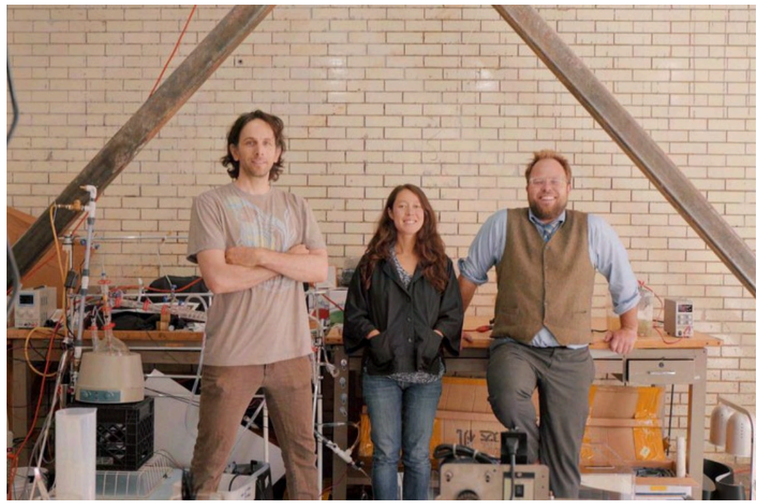
COMMUNITY INPUT

FOCUS GROUPS

Friends of San Leandro Creek

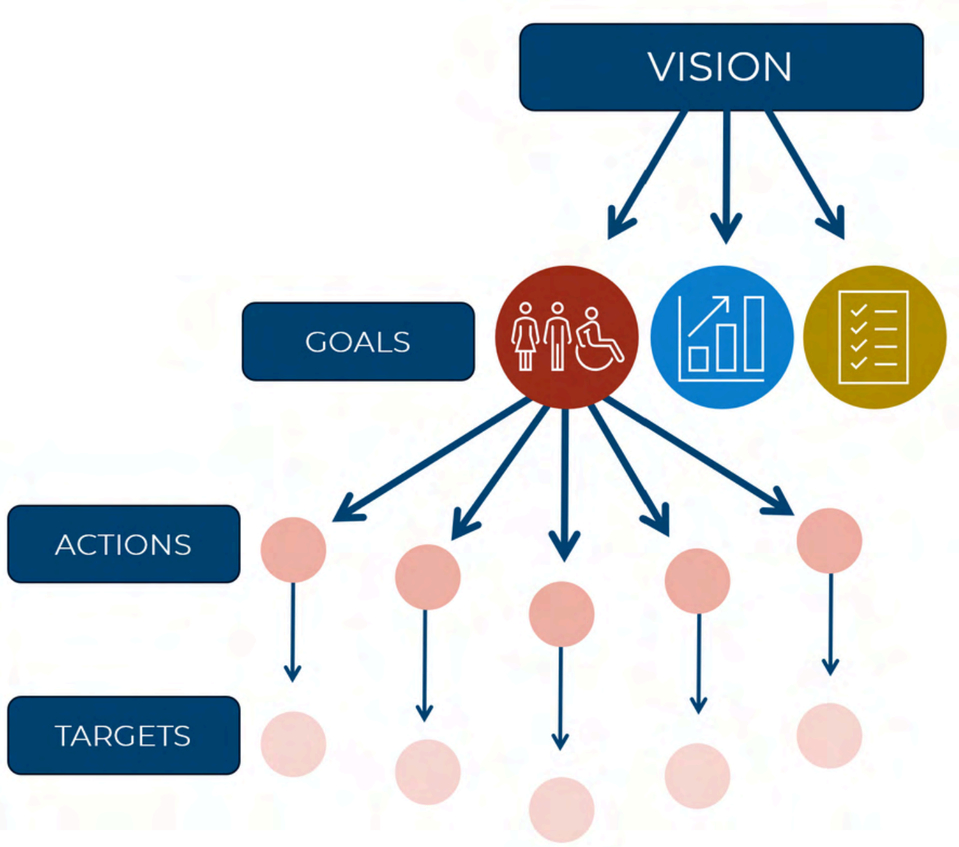
Common Vision

California Department of Forestry & Fire Protection CAL FIRE Since 1885



RECOMMENDATIONS

GOAL THEME	COMMUNITY FOREST ETHOS	TREE MASTER PLAN GOAL
PEOPLE	Support human capacity and care (investments in people and organizations)	Foster a culture of inclusive tree stewardship through robust education, partnerships, and capacity-building opportunities that empower all community members to build tree equity.
PERFORMANCE	Re-envision the functions of the urban forest (productive systems and biocultural approaches)	Measure and track the performance of San Leandro's urban forest in an effort increase the quality and quantity of trees, the benefits provided by trees, and the resources dedicated to tree management.
PLANNING	Community organizing beyond the green silo (intersectional and cross-sectoral approaches)	Develop and implement plans, policies, and procedures that reflect the community's priorities, are driven by data, and proactively tackle issues facing trees in San Leandro.



RECOMMENDATIONS

PEOPLE

#1 Align tree-related resources and planning efforts across City departments and partners to meet common goals and improve efficiency.

Purpose	Action Item 1.1	Action Item 1.2	Action Item 1.3
Partnerships and coordination enable efficient achievement of shared goals.	All entities, resources, and planning efforts identified (Year 2)	Regular meetings between departments and partners improves outcomes and efficiencies (Year 5)	Goals of participating partners are achieved (Year 20)
Priority: ■■■	**Department:** PW, CD, ET	**Criteria Addressed:** 1.1	
Effort: ■■■	**Target Year:** 2025, Annually	**Co-Benefits:** C, E, H, N	

#2 Utilize a continuous improvement framework (Commitment, Strategy, Process, Performance) to improve operational workflows and coordination among departments impacting or influencing the urban forest.

Purpose	Action Item 2.1	Action Item 2.2	Action Item 2.3
As cities grow and change, workflows will adapt.	TMP actions to improve efficiencies begin to be implemented (Year 1)	Regular meetings between departments and partners identify changes in workflows and resource needs (Year 2)	The framework shows improvements in workflows, efficiency, efficacy, and communications (Year 5)
Priority: ■■■	**Department:** PW	**Criteria Addressed:** 1.1	
Effort: ■■	**Target Year:** Annually	**Co-Benefits:** C, N	

#3 Staff participating in tree maintenance and management should actively engage in City planning efforts.

Purpose	Action Item 3.1	Action Item 3.2	Action Item 3.3
Partnerships and coordination enable efficient achievement of shared goals.	Tree management staff represented at relevant planning meetings (Year 2)	Tree management staff represented at relevant planning meetings (Year 5)	Urban forestry is integrated into all relevant City and partner planning efforts (Year 10)
Priority: ■	**Department:** PW, CD, ET	**Criteria Addressed:** 1.1	
Effort: ■	**Target Year:** 2025, Annually	**Co-Benefits:** C, E, H, N	

GOAL: Foster a culture of inclusive tree stewardship through robust education, partnerships, and capacity-building opportunities that empower all community members to build tree equity.

- 17 ACTIONS
- 51 TARGETS

PERFORMANCE

#1 Strengthen protocols and threshold criteria for routine and impromptu public tree risk assessments. Consider ANSI A300 Tree Risk Standards, SOPs, communication protocols, and decision checklist for transparency and consistency.

Purpose	Action Item 1.1	Action Item 1.2	Action Item 1.3
Consistent assessments using industry best practices reduces risk and improves public perception.	Existing protocols and industry recommendations are compiled (Year 1)	Protocols and risk assessment criteria updated, documented, and distributed (Year 2)	Inventories show a reduction in tree risk, less service requests, and improved public perception (Year 20)
Priority: ■■■	**Department:** PW	**Criteria Addressed:** 2.5	
Effort: ■■	**Target Year:** 2025, Annually	**Co-Benefits:** C, E, H, N	

#2 Update the suitable tree list based on the tree inventory, climate change projections, site suitability (Right Tree Right Place), drought tolerance, ecosystem services, tree canopy goals, among other factors.

Purpose	Action Item 2.1	Action Item 2.2	Action Item 2.3
Adhering to tree species recommendations across public and private property results in a more resilient urban forest.	An analysis of the tree inventory and TMP informs changes to the tree species planting palette (Year 6)	Updated draft of the tree species list is completed (Year 8)	The updated tree species list is integrated into City projects, partner projects, policies, and manuals (Year 10)
Priority: ■■	**Department:** PW	**Criteria Addressed:** 2.7	
Effort: ■■	**Target Year:** 2030	**Co-Benefits:** H, N	

#3 Review, update, and document the Recommended Tree Species List to reflect native and non-native species that are appropriate for planting in the public right-of-way, parks, and private property. Encourage and consider a requirement for species diversity. Prioritize soil health and volume in tree plantings areas. Include understory plants and soils in the planning process for trees.

Purpose	Action Item 3.1	Action Item 3.2	Action Item 3.3
A diverse urban forest is resilient to tree pests and diseases and climate change, but must be planted according to tree and site requirements, timing, and desired function.	Existing tree species lists are reviewed (Year 3)	Inventory data informs tree species list (Year 5)	An updated recommended tree species list is created (Year 6)
Priority: ■■	**Department:** PW	**Criteria Addressed:** 2.7	
Effort: ■■	**Target Year:** 2025	**Co-Benefits:** C, H, N	

GOAL: Measure and track the performance of San Leandro's urban forest in an effort increase the quality and quantity of trees, the benefits provided by trees, and the resources dedicated to tree management.

- 7 ACTIONS
- 21 TARGETS

PLANNING

#1 Track all City-led tree plantings and tree plantings conducted by partners. Utilize tree inventory software and/or city asset management program.

Purpose	Action Item 1.1	Action Item 1.2	Action Item 1.3
Accurate tracking enables assessment of efficacy of actions and progress towards canopy goals.	A system is established to methodically and routinely gather tree planting and removal data (Year 1)	Tree planting and removal data from all partners is integrated into the City's asset system (Year 2)	All tree planting and removal data from the City and partners is accurately maintained (Year 5)
Priority: ■■	**Department:** PW, ET, CD	**Criteria Addressed:** N, C, H, E	
Effort: ■	**Target Year:** 2025, Annually	**Co-Benefits:** 3.1	

#2 Update the Tree Canopy Assessment (TCA) every 5-10 years using industry recommended protocols.

Purpose	Action Item 2.1	Action Item 2.2	Action Item 2.3
An updated assessment of canopy gains and losses informs policy and management and offers a baseline to establish goals.	A budget is prepared and approved for the TCA (Year 2)	An RFP is prepared and consultant selected to complete a TCA (Year 4)	An updated TCA is completed (Year 5)
Priority: ■	**Department:** PW	**Criteria Addressed:** 3.2	
Effort: ■■	**Target Year:** 2030	**Co-Benefits:** N, H	

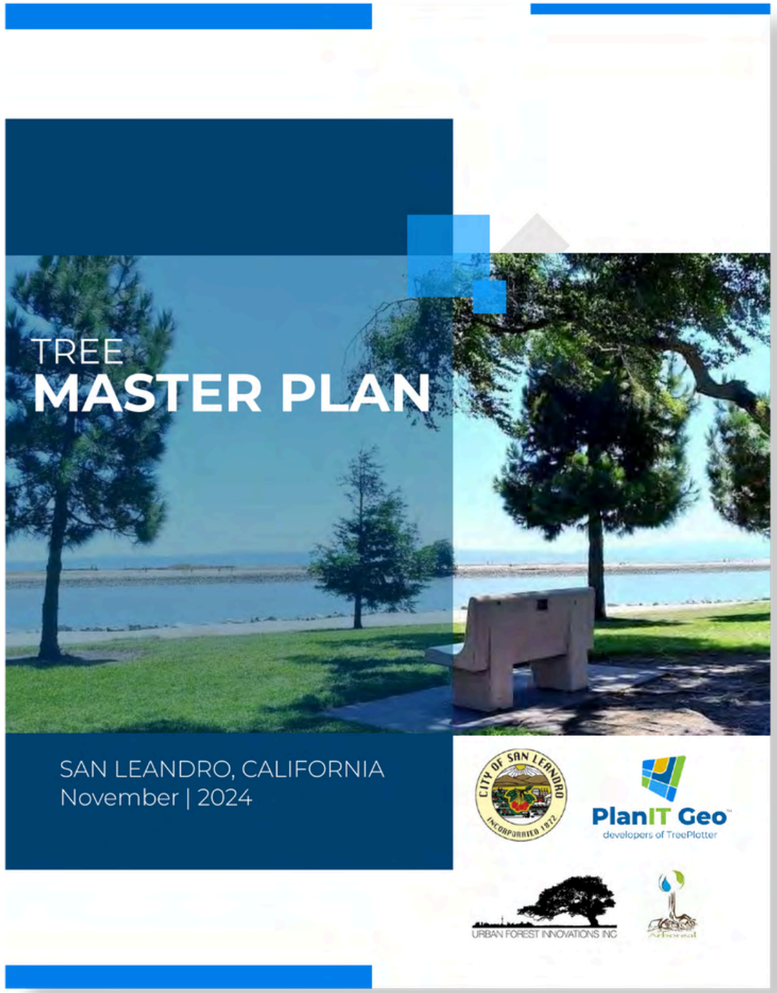
#3 Prioritize canopy cover growth for San Leandro's streets, parks, school campuses, and areas that currently have very little canopy coverage.

Purpose	Action Item 3.1	Action Item 3.2	Action Item 3.3
Areas with low tree canopy cover suffer from the urban heat island effect, which has a variety of negative impacts on the community that could be avoided with more equitable distribution of tree canopy throughout the city.	Tree plantings are directed to priority areas as identified in the TMP that used 2018 canopy data (Year 1)	A canopy assessment is completed to compare with the 2018 data, identify areas of growth and loss, and reprioritize plantings strategies if necessary (Year 3)	Planting strategies are assessed periodically as new data becomes available so canopy is equitable distributed (Year 4)
Priority: ■	**Department:** PW, ET	**Criteria Addressed:** 3.2	
Effort: ■	**Target Year:** 2025, Annually	**Co-Benefits:** H, N	

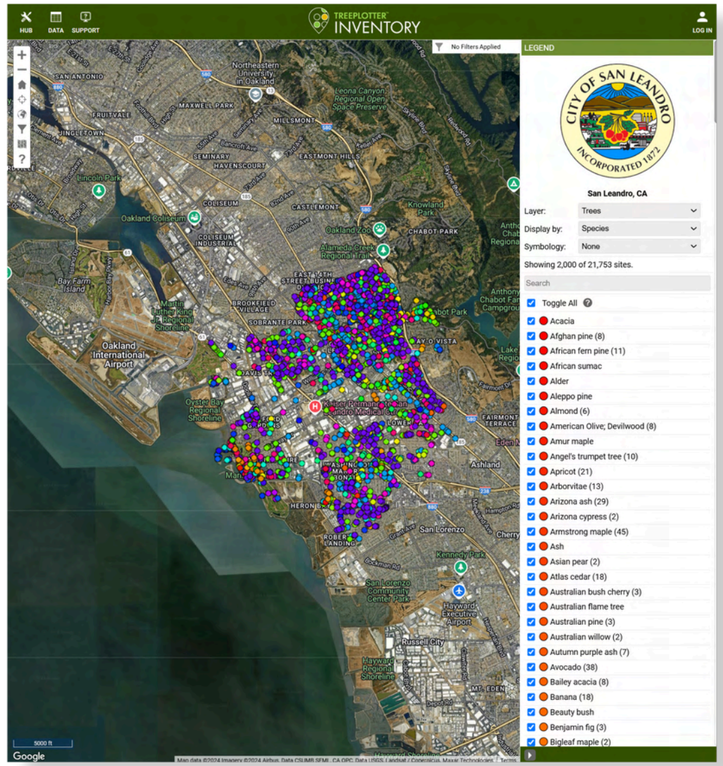
GOAL: Develop and implement plans, policies, and procedures that reflect the community's priorities, are driven by data, and proactively tackle issues facing trees in San Leandro.

- 15 ACTIONS
- 45 TARGETS

NEXT STEPS



TreePlotter™ INVENTORY



Questions & Discussion

THANK YOU!

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