City of Albany
Street Tree Management Plan

Ryan Suttle, Consulting Arborist & Urban Forester

Street Tree Management Plan

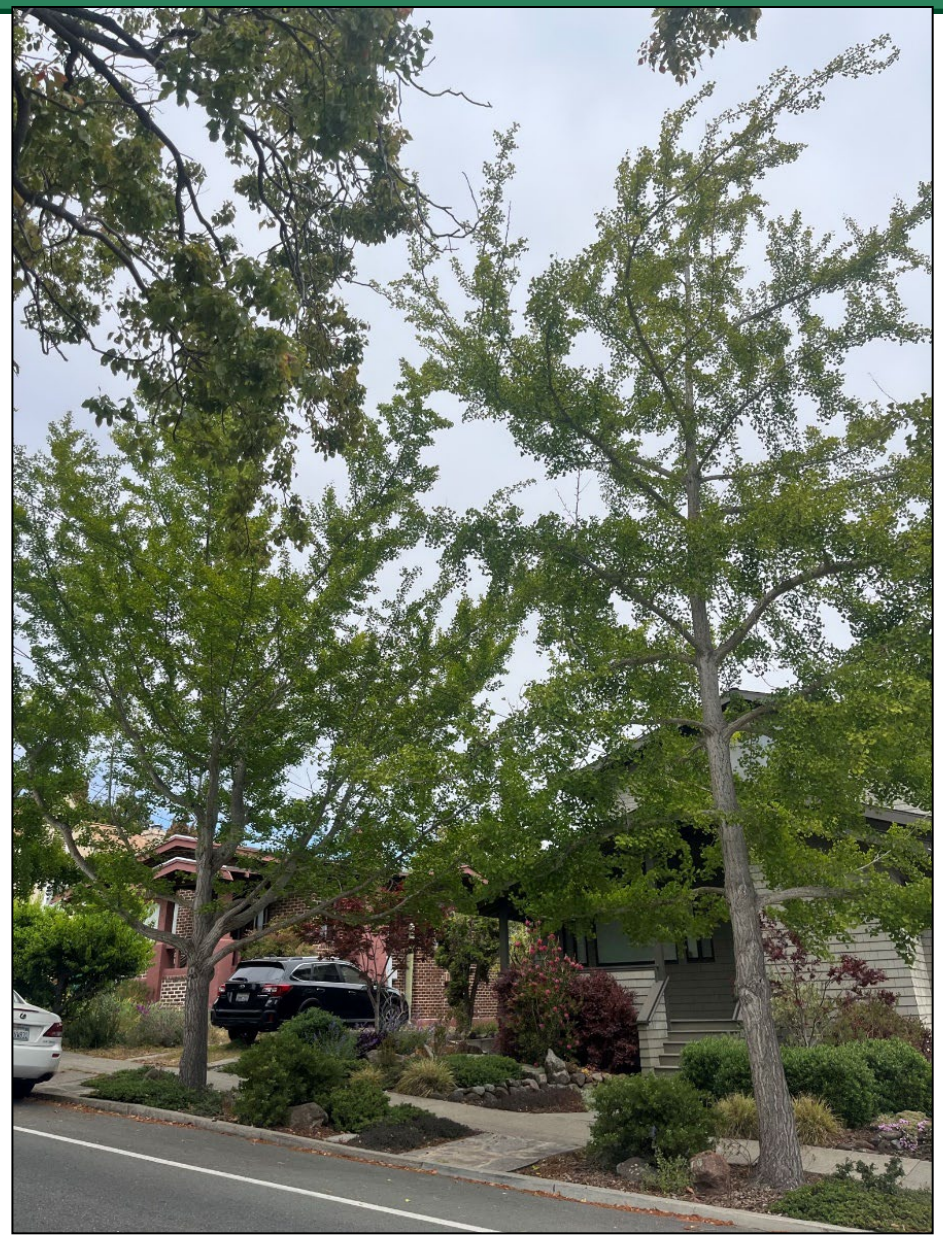
- Since last meeting, April 2025
  - Worked with City of Albany staff to review and revise recommendations / budget projections
  - Tabling at Albany Planning Citywide Planning Expo in May
    - Opportunity to connect directly with community & listen
    - Incorporated feedback into recommendations (Chapter 6)

Street Tree Management Plan

- Project Update
  - Refresher and updates to chapters 1-4 and 6
  - Chapter 5 covers community perspectives, in progress

Street Tree Management Plan

- Refresher
  - Chapters 1 – 4
    1. Introduction and Context
    2. The City of Albany
    3. Urban Forest Assessment
    4. Current Tree Management and Protections



Vision & Mission

Vision Statement

The City of Albany will strive to protect and grow a healthy and diverse street tree population and expand the street tree canopy as an essential social, environmental, economic, aesthetic, and community asset to enhance the quality of life for current and future generations.

Vision & Mission

Mission Statement - The City of Albany is committed to a sustainable future. These sustainability goals will be supported through the protection and growth of trees in the public right-of-way. The City will strive to ensure that the benefits are equitably distributed throughout the city and are maintained to optimize benefits. This optimization is realized through actions taken by staff to maintain a healthy and expanding tree canopy. The inherent risk street trees present will be managed to a level that is reasonable, practical, and proportionate. Albany staff, in coordination with the community, will implement the management program.

Vision & Mission

Goal - Optimize the sustained benefits, aesthetic, environmental, etc., of street trees while reasonably, practically, and proportionately managing their inherent risk consistent with industry best management practices and scientific researched cost-effective technologies

Chapter 1 – Introduction and Context

- Why care about the Street Trees?
  - Ecosystem services
  - Social sustainability
  - Economic sustainability
  - Equity

- Why a Street Tree Management Plan?
  - Investment in important public green infrastructure to match management with overarching City of Albany goals and community vision

Chapter 1 – Introduction and Context

STMP DEVELOPMENT PROCESS

STEP 1

CAAP

Climate Action and Adaptation Plan outlines goals to increase urban canopy cover and improve maintenance of urban trees.

STEP 2

H|BC Partnership

HortScience | Bartlett Consulting was selected to partner with the City on the Street Tree Management Plan to address several goals outlined in the CAAP.

STEP 3

Policy and Procedure Review

H|BC worked with city staff to review policies and procedures related to street tree management as well as overarching plans such as the CAAP and General Plan.

STEP 4

Tree Canopy and Inventory Analysis

H|BC reviewed existing canopy coverage and distribution of the tree resource in the City of Albany as well as the population demographics of street trees.

STEP 5

Community Outreach and Engagement

Community members were engaged through a survey, Parks Recreation and Open Space Commission Meetings, interviews, and City expo's to gather feedback on the vision and goals of the plan.

STEP 6

Plan Development

With continuing feedback and collaboration with City of Albany staff members and community members, H|BC authored the subject Street Tree Management Plan.

Chapter 2 – The City of Albany

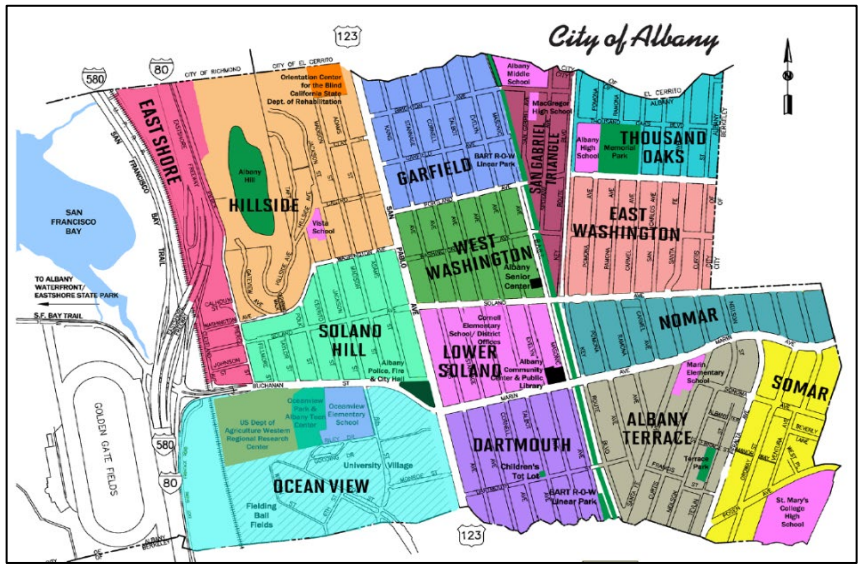
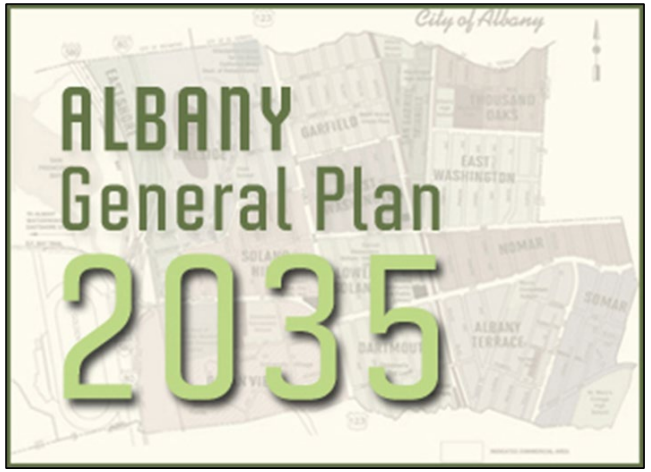


Figure 1: The 14 neighborhoods in the City of Albany.



Understanding the land

- 14 Neighborhoods
- Largely developed, residential

Connections with other City planning

- General plan
- CAAP

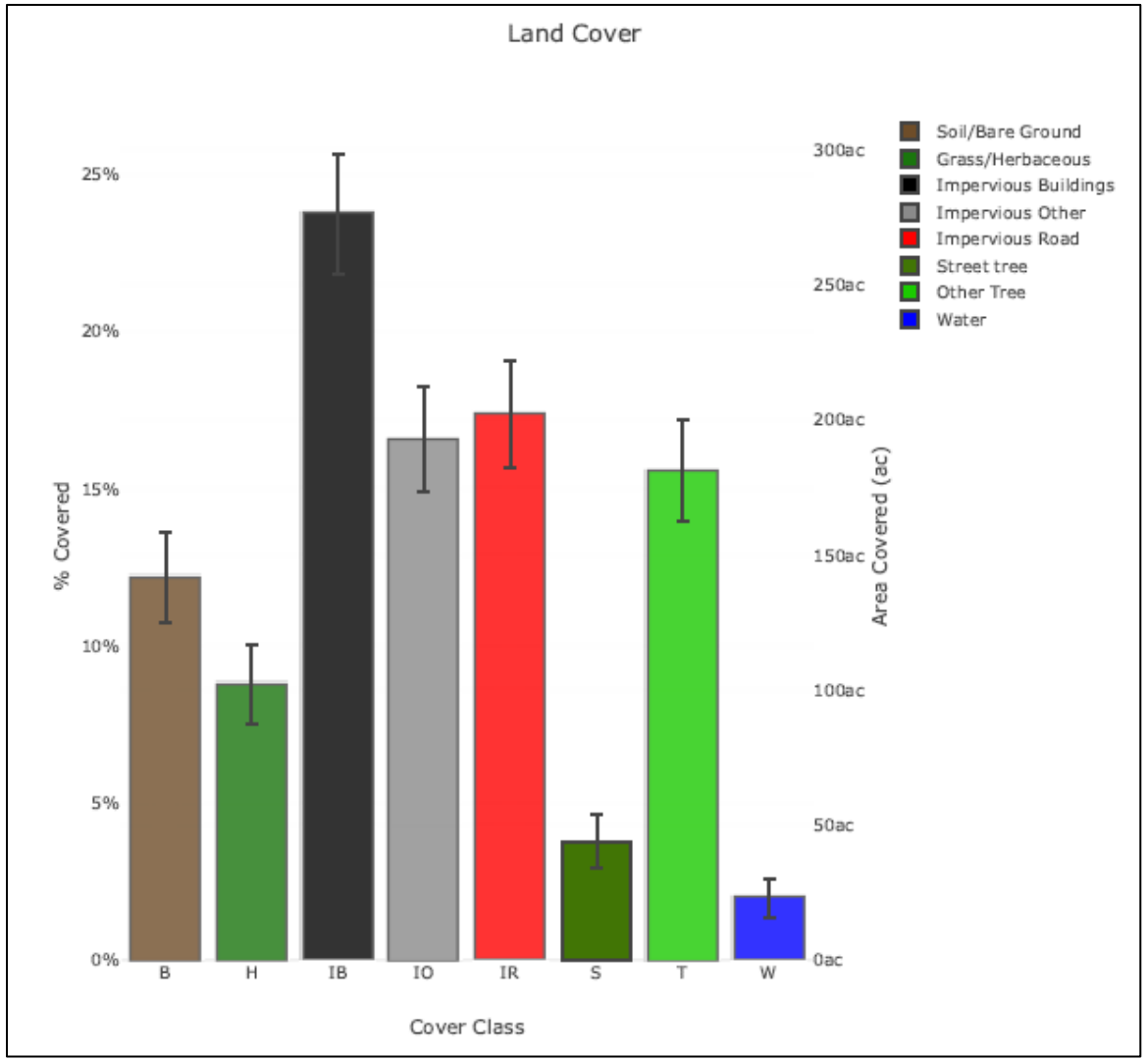
Chapter 3 – Urban Forest Assessment

- Canopy cover assessment
  - Inventory analysis
- Ecosystem service analysis

Chapter 3 – Urban Forest Assessment

i-Tree Canopy

- 19% canopy cover
  - ~1/5 street tree
  - ~4/5 private, park, other
- 68% impervious surfaces



Chapter 3 – Urban Forest Assessment

Neighborhood	Total Canopy Cover (%)	Other Tree Canopy Cover (%)	Street Tree Canopy Cover (%)	Neighborhood Area (US Survey Acres)	Planting Priority (1-high, 4-low)
Albany Terrace	24	18	6	75	3
Dartmouth	20	16	4	64	2
East Washington	18	14	4	57	2
Eastshore	4	2	2	54	1
Garfield	16	14	2	67	1
Hillside*	31*	29	2	123	1
Lower Solano	16	8	8	45	4
Nomar	18	12	6	54	3
Ocean View	16	14	2	16	1
San Gabriel Triangle	9	6	3	9	2
Solano Hill	13	12	1	13	1
Somar	22	16	6	22	3
Thousand Oaks	24	12	12	24	4
West Washington	10	8	2	10	1

*Includes Albany Hill.

Chapter 3 – Urban Forest Assessment

Estimated **benefits** of street tree canopy

Tree Benefit Estimates: Air Pollution (English units)

Abbr.	Description	Amount (lb)	±SE	Value (USD)	±SE
CO	Carbon Monoxide removed annually	254.44	±23.20	$170	±15
NO2	Nitrogen Dioxide removed annually	1,405.61	±128.16	$307	±28
O3	Ozone removed annually	10,857.93	±989.99	$14,104	±1,286
SO2	Sulfur Dioxide removed annually	690.98	±63.00	$46	±4
PM2.5	Particulate Matter less than 2.5 microns removed annually	554.69	±50.58	$29,526	±2,692
PM10*	Particulate Matter greater than 2.5 microns and less than 10 microns removed annually	3,081.71	±280.98	$9,659	±881
Total		**16,845.35**	**±1,535.91**	**$53,811**	**±4,906**

Currency is in USD and rounded. Standard errors of removal and benefit amounts are based on standard errors of sampled and classified points. Air Pollution Estimates are based on these values in lb/ac/yr @ $/lb/yr and rounded:
CO 1.130 @ $0.67 | NO2 6.241 @ $0.22 | O3 48.211 @ $1.30 | SO2 3.068 @ $0.07 | PM2.5 2.463 @ $53.23 | PM10* 13.683 @ $3.13 (English units: lb = pounds, ac = acres)

Chapter 3 – Urban Forest Assessment

Estimated **benefits** of street tree canopy

Tree Benefit Estimates: Carbon (English units)

Description	Carbon (T)	±SE	CO_2 Equiv. (T)	±SE	Value (USD)	±SE
Sequestered annually in trees	307.43	±28.03	1,127.23	±102.78	$52,432	±4,781
Stored in trees (Note: this benefit is not an annual rate)	7,720.61	±703.94	28,308.90	±2,581.12	$1,316,755	±120,058

Currency is in USD and rounded. Standard errors of removal and benefit amounts are based on standard errors of sampled and classified points. Amount sequestered is based on 1.365 T of Carbon, or 5.005 T of CO_2, per ac/yr and rounded. Amount stored is based on 34.281 T of Carbon, or 125.697 T of CO_2, per ac and rounded. Value (USD) is based on $170.55/T of Carbon, or $46.51/T of CO_2 and rounded. (English units: T = tons (2,000 pounds), ac = acres)

Chapter 3 – Urban Forest Assessment

Condition

- Most are good condition
- Fair condition trees often had minor / moderate structural defects
- Poor condition trees declining, decayed, topped

Condition	Count	Proportion
Critical	1	0.02%
Dead	11	0.22%
Excellent	1	0.02%
Fair	1822	37%
Good	2738	56%
Poor	278	6%
Stump	19	0.39%
Vacancy	32	1%
Very Good	23	0.47%
Total	**4925**	**100%**

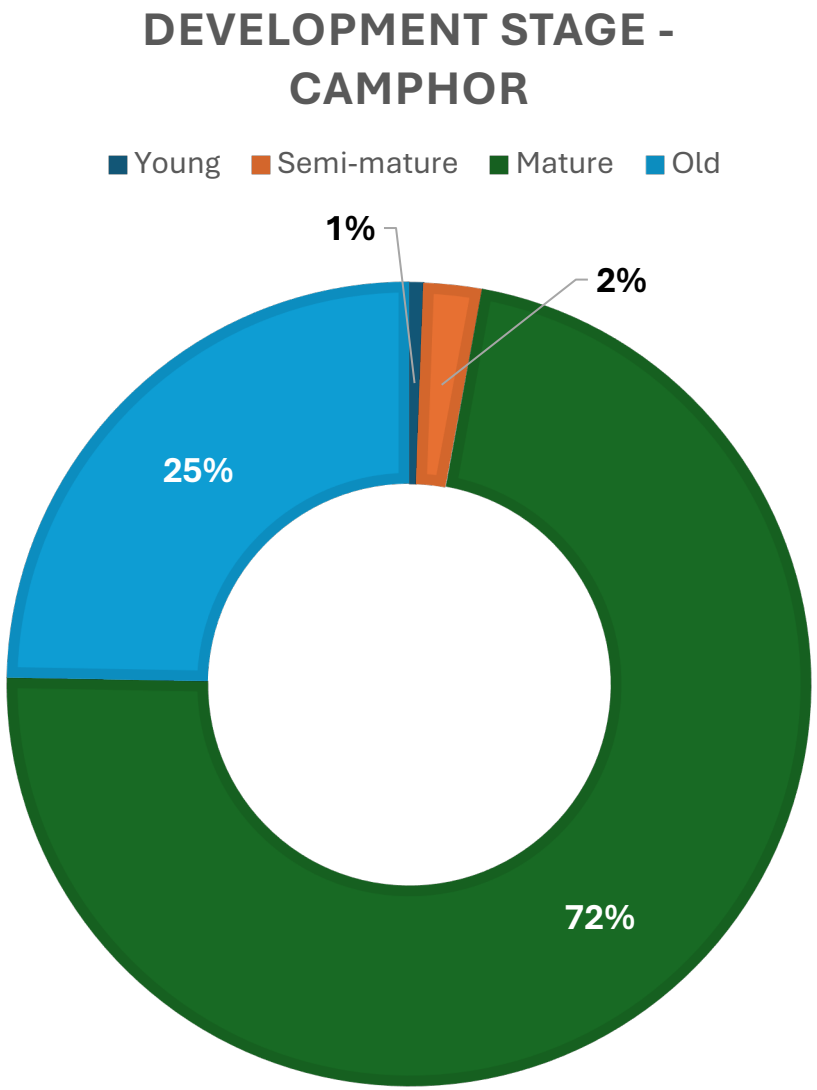
Chapter 3 – Urban Forest Assessment

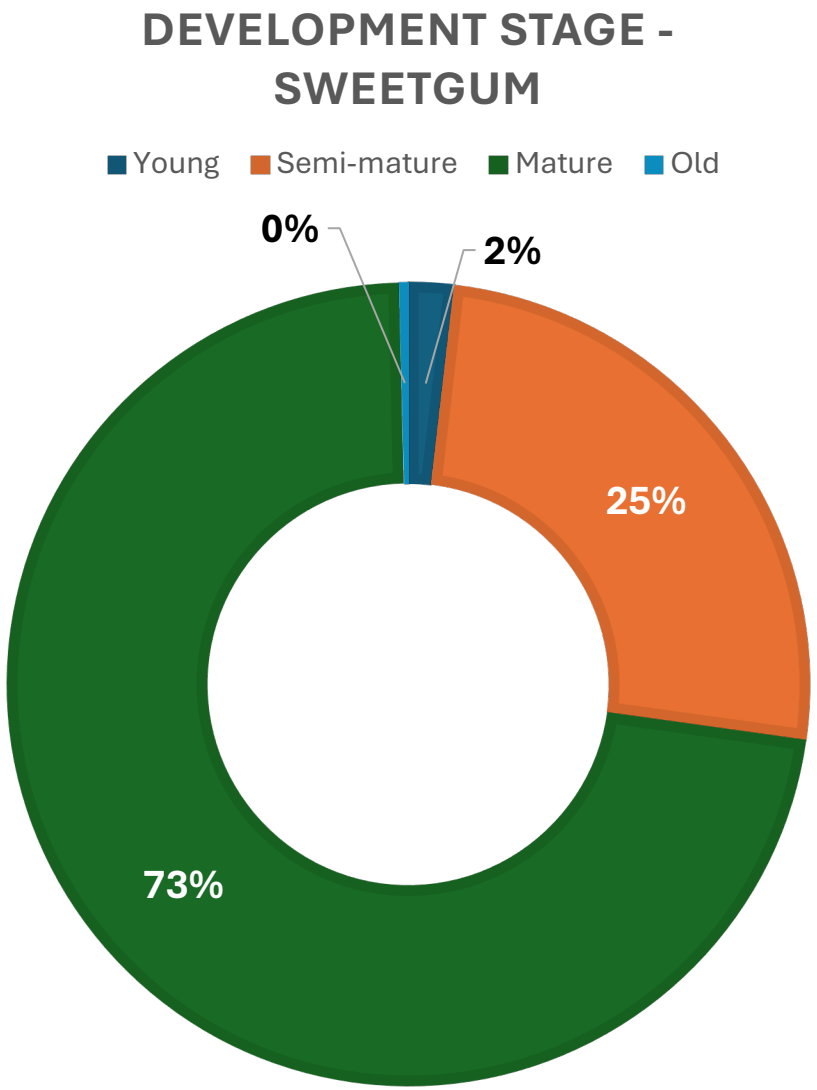
- 15 most common species

Scientific Name	Common Name	Count	Proportion
Lagerstroemia indica (and hybrids)	Crape myrtle	573	11.63%
Tristaniopsis laurina	Water gum	312	6.34%
Acer rubrum	Red Maple	274	5.56%
Liquidambar styraciflua	Sweetgum	272	5.52%
Pistacia chinensis	Chinese Pistache	211	4.28%
Cinnamomum camphora	Camphor	174	3.53%
Acer buergeranum	Trident maple	155	3.15%
Crataegus phaenopyrum	Washington Hawthorn	155	3.15%
Ginkgo biloba	Ginkgo	144	2.92%
Cercis canadensis	Eastern redbud	142	2.88%
Arbutus 'Marina'	Marina madrone	135	2.74%
Prunus serrulata 'Kwanzan'	Kwanzan cherry	131	2.66%
Platanus x acerifolia	London plane	130	2.64%
Magnolia grandiflora	Southern magnolia	126	2.56%
Melaleuca linariifolia	Flaxleaf paperbark	114	2.31%

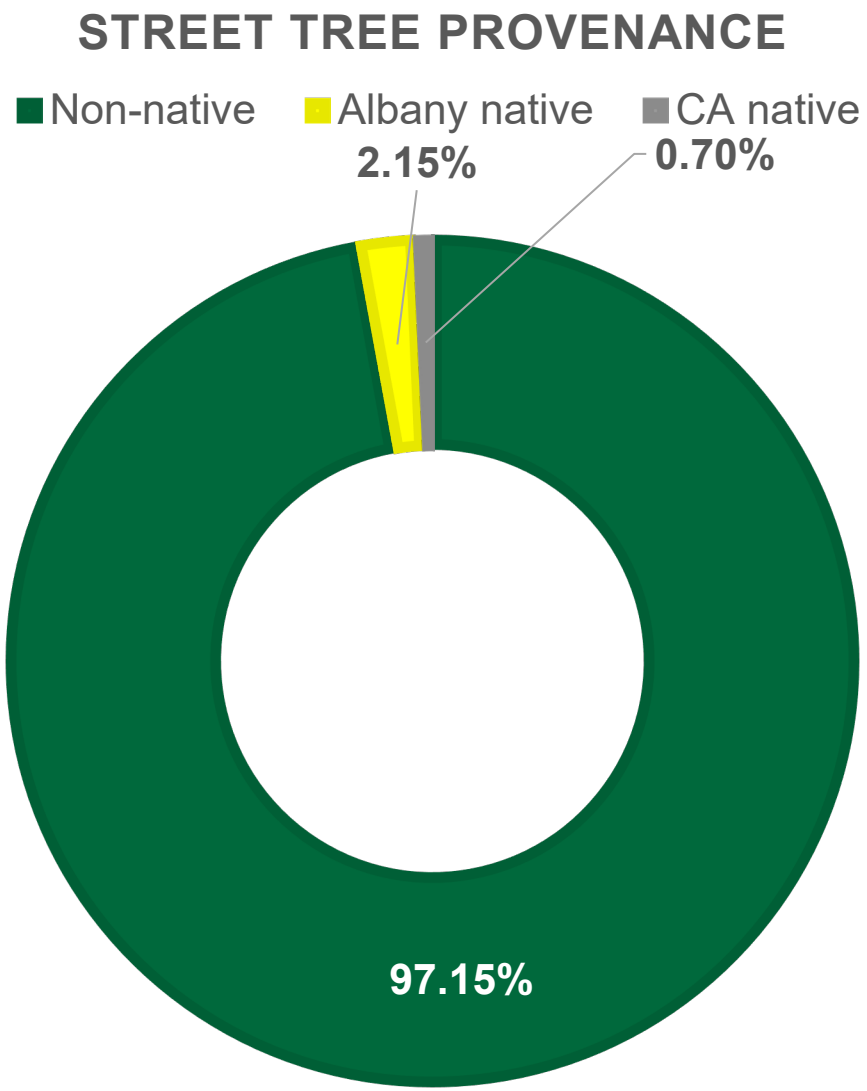
Mature Size
Large
Medium
Small

Chapter 3 – Urban Forest Assessment





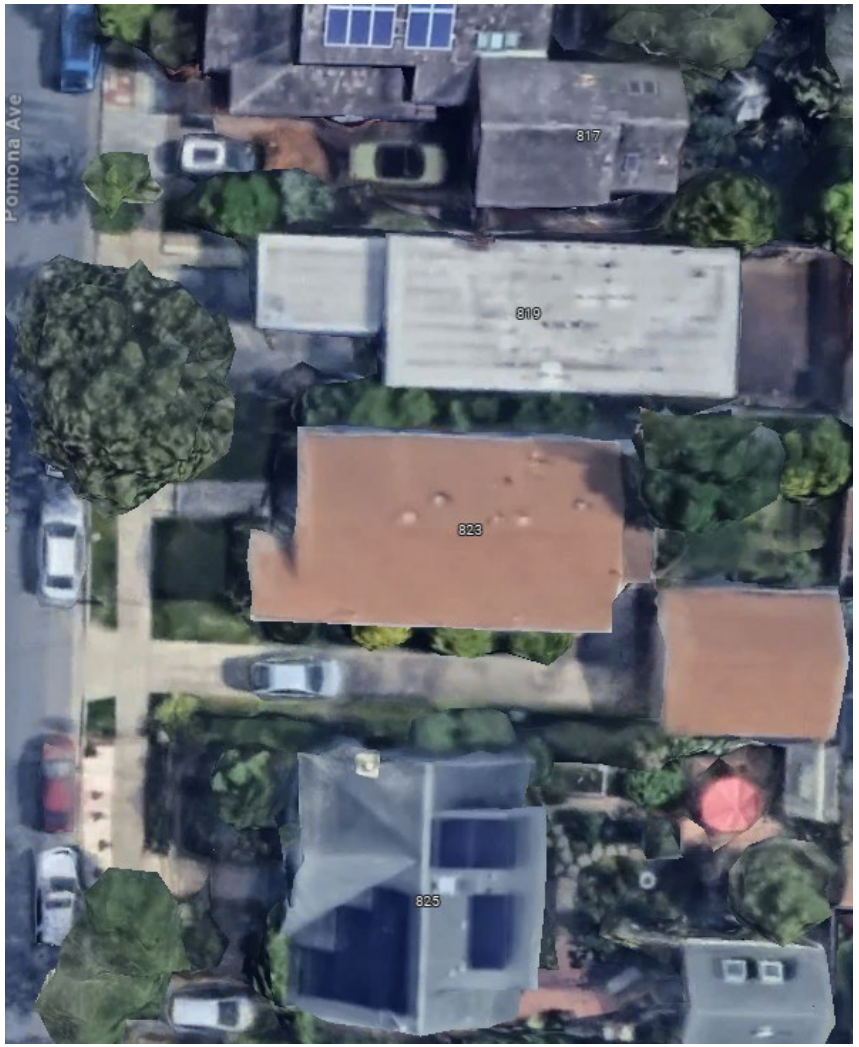
Chapter 3 – Urban Forest Assessment



Common name	Scientific name	No. of Trees
Coast live oak	*Quercus agrifolia*	64
California buckeye	*Aesculus californica*	15
Coast redwood*	*Sequoia sempervirens*	12
Toyon*	*Heteromeles arbutifolia*	9
Bigleaf maple*	*Acer macrophyllum*	1
Coffeeberry*	*Rhamnus californica*	1
Madrone*	*Arbutus menzesii*	1
Pacific wax myrtle*	*Myrica californica*	1
Valley oak	*Quercus lobata*	1

**Species possesses traits that are inappropriate for future planting efforts*

Chapter 4 – Current Tree Management and Protections



- How are trees maintained (*Code 14-1.4)*
- City of Albany = reactive tree maintenance model
- Benchmarking and comparative analysis

Chapter 4 – Current Tree Management and Protections

- Albany
  - Shared maintenance agreement
  - Reactive tree management

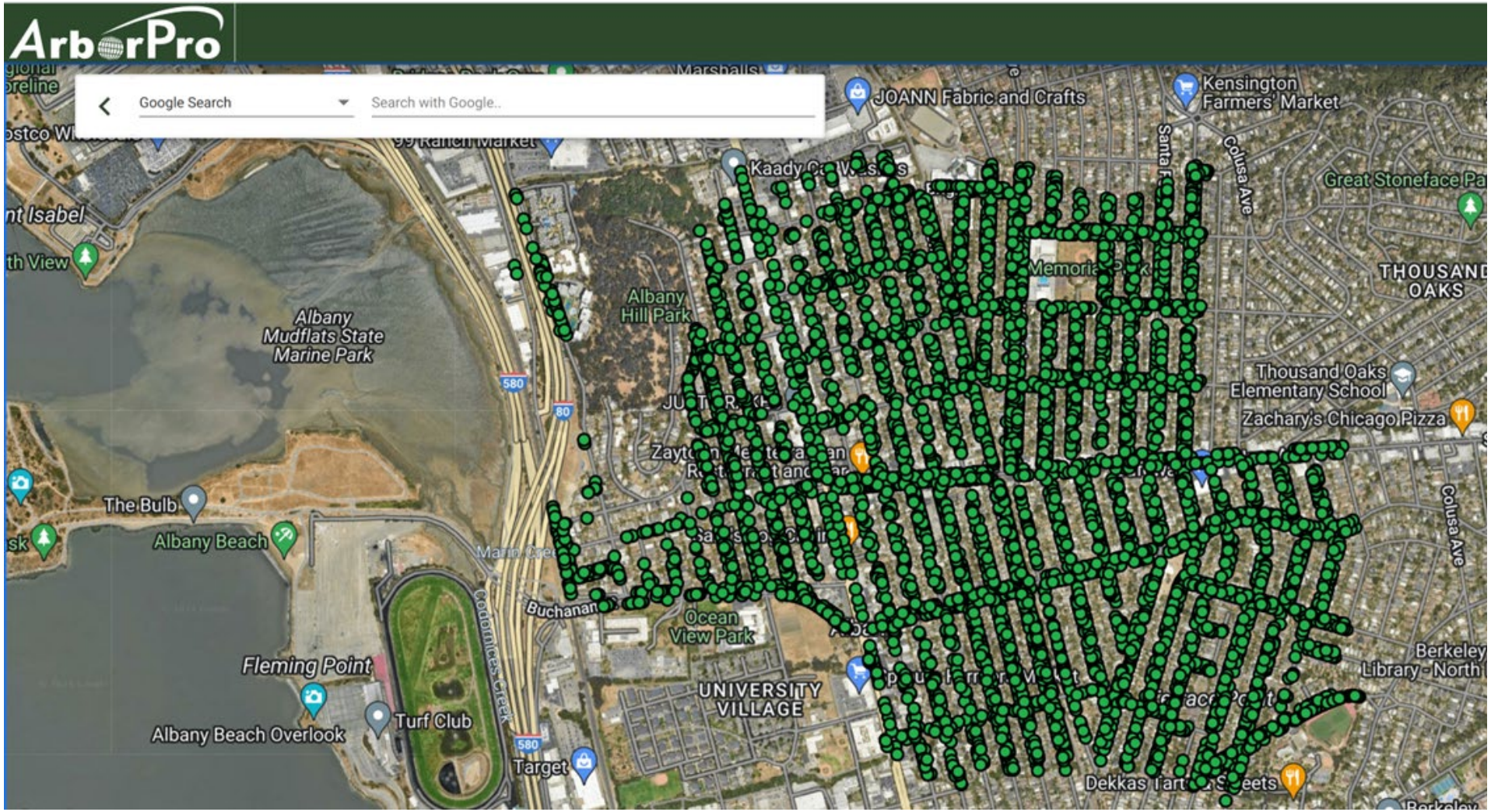
- Benchmark comparison to 8 nearby municipalities
  - Seven proactively maintain trees in ROW

Chapter 4 – Current Tree Management and Protections

	FY2023	FY2024
Expenditure	$ 60,745	$ 94,945
Trees pruned	139	181
Unit cost	$ 437	$ 524

Albany average unit cost	**$ 480**
Proactive grid pruning average	**$ 140**

Questions?


ArborPro
Google Search
Search with Google..
JOANN Fabric and Crafts
Kensington Farmers' Market
Albany Mudflats State Marine Park
Albany Hill Park
Great Stoneface Pa
THOUSAND OAKS
Thousand Oaks Elementary School
Zachary's Chicago Pizza
Colusa Ave
The Bulb
Albany Beach
Fleming Point
Albany Beach Overlook
Turf Club
Ocean View Park
UNIVERSITY VILLAGE
Target
Berkeley Library - North
580
80

Goal 1: Grow a healthy, extensive, vibrant, and diverse urban forest to increase canopy cover.

Objective	Action	Key Point
1. Grow the urban forest.	1. Develop a city-wide street tree planting strategy to increase tree canopy in the right-of-way.	1. Plant 170 or more street trees per year. Prioritize tree species native to the Albany area where appropriate.
		2. Define and budget for a maintenance program for newly planted street trees
		3. Measure city-wide and zone-specific tree canopy cover every 10 years to track progress
	2. Plant climate-adapted species with the intention of planting the right tree in the right place to maximize benefits for public health, wildlife, and resilience.	1. Plant the appropriate species for the specific planting location to maximize tree canopy
		2. Improve species diversity of street trees with the goal of 10, 20, 30 rule
	3. Integrate trees into the future.	1. Set standard sizes for tree wells and planting strips to allow for healthy tree growth
		2. Continue to emphasize tree preservation
		3. Plant street trees with place making in mind (e.g. trees with fall color or flowering trees)
		4. Add street trees into roadway reconstruction projects that involve complete street elements
2. Define responsibilities and support improved maintenance practices and protections trees.	4. Codify responsibility and set standards for proactive public tree maintenance and protection.	1. Codify the City's authority and responsibility for street tree maintenance, add a definitions section to the ordinance.
		2. Revise the criteria for street tree removal to shift responsibility for safety-related tree concerns to the City Arborist.
		3. Take a proactive grid pruning approach to public tree maintenance
	5. Revise the tree ordinance and implementation process to provide strong protection and include private trees.	1. Codify the protection for private trees, describe motivations, definitions, and clearly define responsibilities.

Goal 2: Connect with an engaged and informed community to provide stewardship of the urban forest.

Objective	Action	Key Point
3. Connect with the community around tree stewardship.	6. Design a cohesive and inclusive public outreach program focused on building awareness of the benefits of trees and how and why trees are protected in the city.	1. Engage with local community groups in urban forest stewardship activities
		2. Provide up-to-date information about tree protections and management on the City website
	7. Become a Tree City USA.	1. Celebrate trees at Arbor Day
		2. As in Action 5, update the public tree ordinance to set standards of care

Chapter 6

- **Implementation implications:**
  - Ideally, all actions will be pursued
  - Must consider budget, time, and staffing constraints
  - Regularly revisit this plan to evaluate progress against suggestion actions

Chapter 6

- **Goal 1:** Grow a healthy, extensive, vibrant, and diverse street tree population to provide 5% canopy cover by 2050.

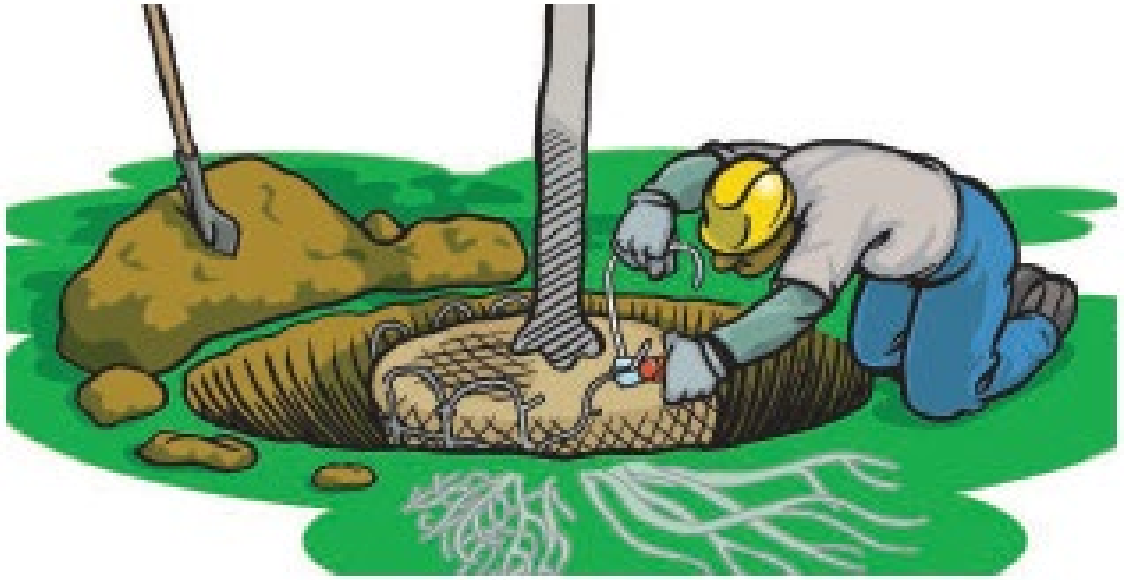
  - Street trees currently account for ~4% cover
  - Heavy limitations along streets
  - Prioritize:
    - Species diversity, Albany natives
    - Climate adapted species
    - Maximizing canopy based on site

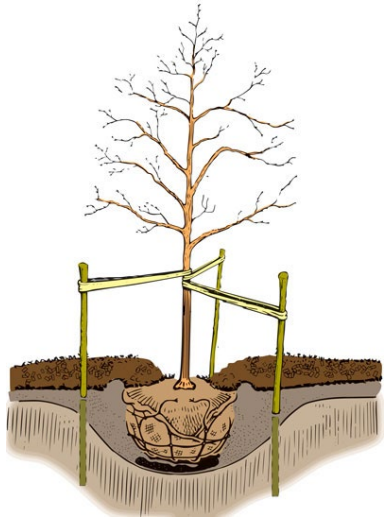
Chapter 6

- **Objective 1:** Grow the urban forest.

  Action 1. Develop a city-wide street tree planting strategy to increase canopy cover and improve equity between neighborhoods.

  - **Key Points**
    - Plant at least 170 street trees per year
    - Define and budget for a maintenance program for newly planted trees
    - Measure city-wide and zone-specific tree canopy cover every 10 years to track progress





Chapter 6

- **Objective 1:** Grow the urban forest.

  Action 2. Plant climate-adapted species with the intention of planting the right tree in the right place to maximize benefits for public health, wildlife, and resilience.

  - **Key Points**
    - Plant an appropriate species for the specific planting location
    - Maintain species and age diversity within the urban forest

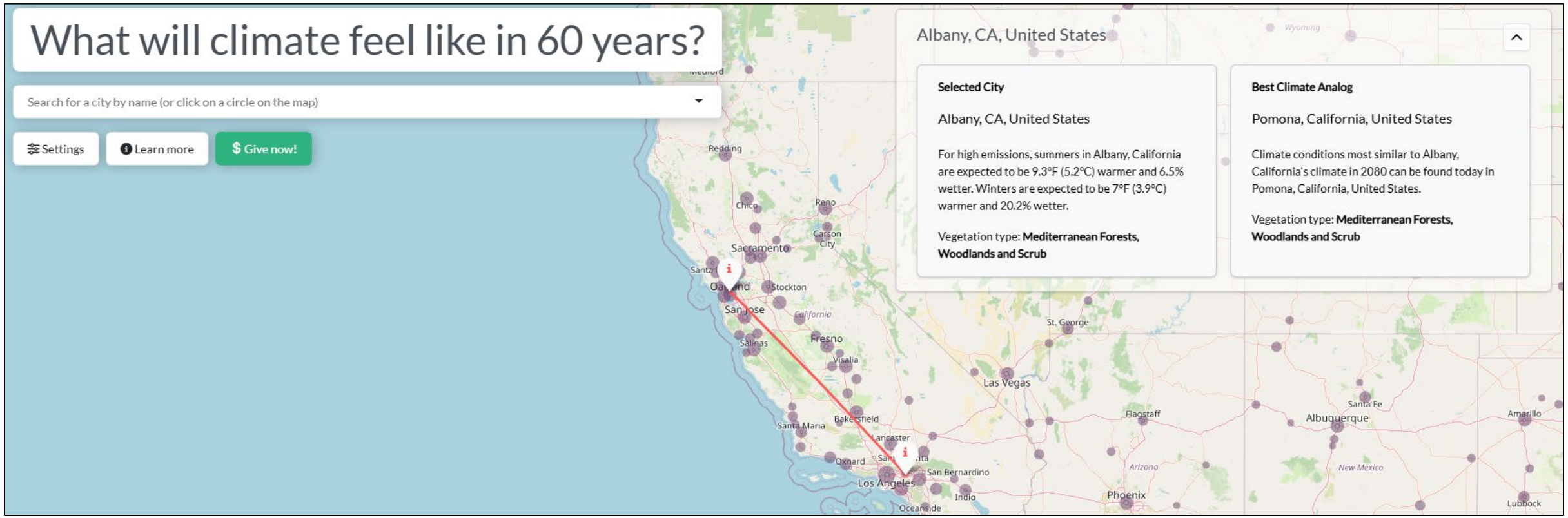
Chapter 6

- **What is “climate adapted”?**

- Tree species that will thrive now and into the future of Albany in the context of climate change.
- Consider:
  - Water use
  - Sunset zone / hardiness zone
  - Salt tolerance (recycled water)
  - Proximity to migration routes
- E.g., Silverleaf oak (*Quercus hypoleucoides*)

Chapter 6

- University of Maryland Center for Environmental Science predicts that Pomona, CA represents a likely future climate analog for Albany



Chapter 6

Planting and supporting a resilient urban forest		
Diversity and resilience	**Trees and wildlife**	**Water use**
1. Plant a diversity of tree species with the goal of no more than 10% of any one species, 20% of any one genus, or 30% of any family. 2. Prioritize planting climate-adapted ornamental and native species.	1. Preserve the structural diversity of the urban forest by maintaining a chronodiverse street tree population. 2. Where the site allows, plant native trees, especially oaks, to support diverse local wildlife and promote connection with local natural history.	1. Prioritize low water use species. 2. Support young trees with supplemental irrigation until establishment. 3. Plant salt-tolerant species if recycled water will be used.
Human health impacts	**Placemaking**	**Ecosystem service delivery**
1. Plant trees with dense, large crowns along active transit routes for the greatest cooling benefits. 2. Plant diverse species to avoid synchronous pollen production. 3. Plant trees in high density and high traffic areas to increase people's experience of and interaction with trees.	1. When replacing trees after removal, choose an appropriate species to offer similar aesthetic benefits (e.g. fall color, flowering, etc…)	1. Match tree geometry with site geometry to limit potential for conflicts between trees and hardscape, which may result in premature removal. 2. Plant the largest maturing tree possible for each site to maximize ecosystem service contribution.

Chapter 6

- **Objective 2:** Define responsibilities and support improved maintenance practices and protections of trees

Action 4. Codify responsibility and set standards for proactive public tree maintenance and protection

Chapter 6

- **Key Points**
  - Codify the City's authority and responsibility for street tree maintenance. Clarify definitions in the Ordinance.
  - Revise the criteria for street tree removal to shift responsibility for safety-related tree concerns to the City Arborist.
  - Take a proactive, inspection-cycle based approach to street tree maintenance.

Recommended revised tree removal criteria

City Manager or designee is responsible for maintaining trees in the right-of-way. Applications for public tree removal that involve non-health or risk (criteria #5b) the City Arborist will make a recommendation to the Parks, Recreation, & Open Space Commission for review and comment. One of the following findings must be met:

1. **Death**. The street tree is dead. A dead tree means a tree that has no live foliage and or tissue determined by the City Arborist.

2. **Tree Risk Rating.** The tree poses a high or extreme risk rating under the International Society of Arboriculture Best Management Practices and the risk cannot be reasonably abated to moderate to low-risk rating with sound arboricultural treatments as determined by the City Arborist (or other Tree Risk Assessment Qualified Arborist).

3. **Tree Condition Rating.** The tree is dying or has a severe disease, pest infestation, intolerance to adverse site conditions, or other condition and pruning or other reasonable treatments based on current arboricultural standards will not restore the tree to a fair, good or excellent condition rating as defined in the most recent edition of the CTLA Guide for Plant Appraisal, or is likely to die within a year as determined by the City Arborist.

4. **Species.** The tree species is listed on the California Invasive Plant Inventory Database (http://www.cal-ipc.org/paf/) as being invasive.

Recommended revised tree removal criteria

5. **Nuisance tree**. An individual tree likely to destroy, impair or otherwise interfere with any street improvements, sidewalks, curbs, street trees, gutters, sewers, or other public improvements, including above and below ground utilities. For example: An applicant may seek removal of a female ginkgo growing as a street tree. An applicant may seek removal of a tree that was placed in the parkway poorly and is now blocking a non-essential entrance.

6. **Development and construction.**
   a. For development related projects, The Planning and Zoning Commission will determine if street trees should be retained, planted, and/or removed.
   b. Refer to the Active Transportation plan for integration of street tree removals and plantings for active transportation and transit facilities.

Only the owner of the property that fronts the City Tree is eligible to apply for a City Tree Removal Permit. A determination letter will be issued.

Recommended revised tree removal criteria

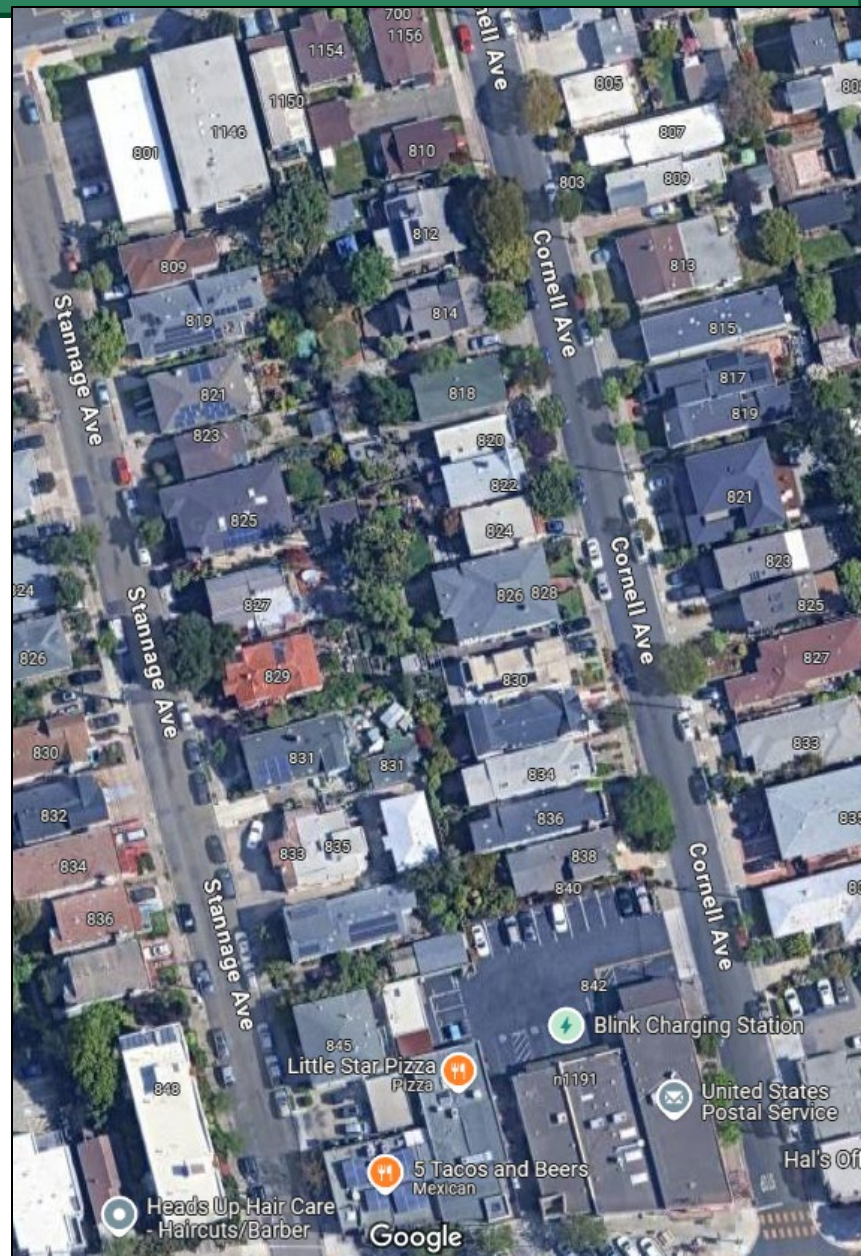
Removal Criteria	Findings made by:
1. Death	City Manager or designee (i.e., Urban Forester)
2. Tree Risk Rating	City Manager or designee (i.e., Urban Forester)
3. Tree Condition Rating	City Manager or designee (i.e., Urban Forester)
4. Species	City Manager or designee (i.e., Urban Forester)
5. Nuisance tree	PROS Commission
6. Development and construction	The Planning and Zoning Commission

Chapter 6

- **Objective 2:** Define responsibilities and support improved maintenance practices and protections of trees

Action 5. Revise the tree protection ordinance and implementation process to provide strong protection for private trees

- **Key Points**
  - Codify the protection for private trees, describe motivations, definitions, and clearly define responsibilities



Chapter 6

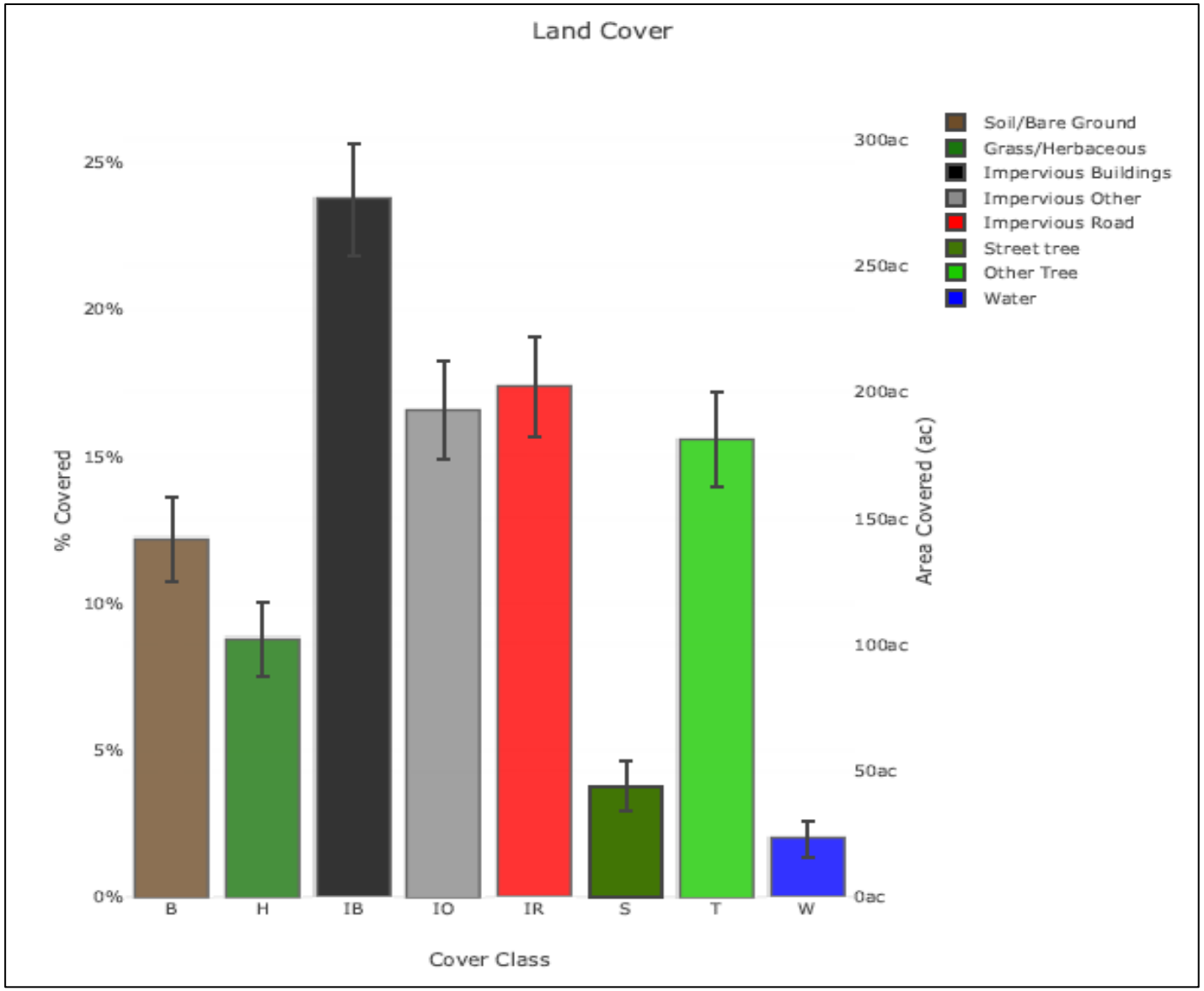


Figure 1: Percent land cover by 8 types of land classes (generated by i-Tree Canopy, November 2023)

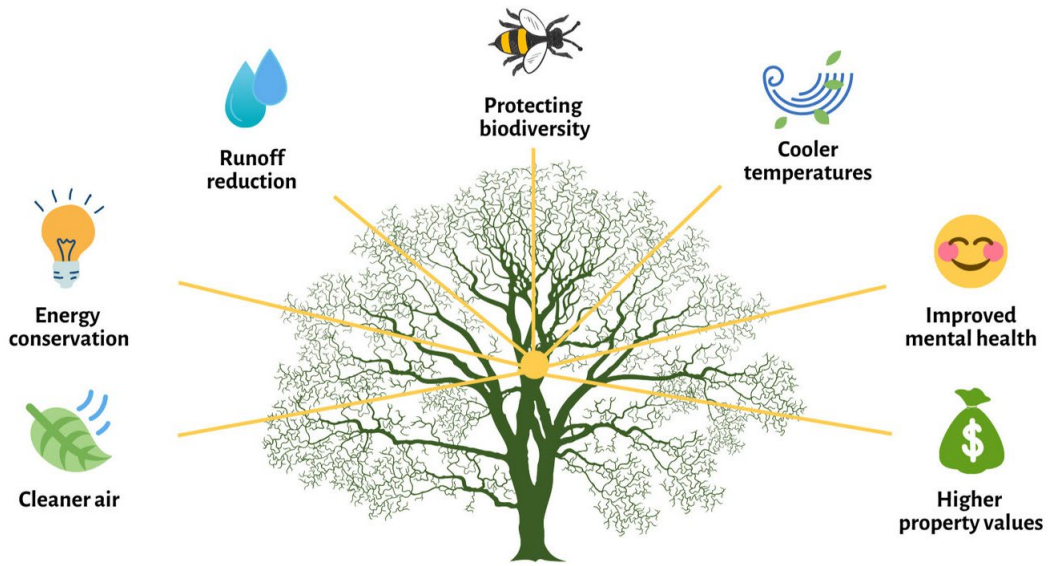
Chapter 6

- **Goal 2:** Connect with an engaged and informed community to provide stewardship of street trees.

Chapter 6

- **Objective 3:** Connect with the community around tree stewardship.

Action 7. Design a cohesive and inclusive public outreach program focused on building awareness of the benefits of trees and how and why trees are protected in the City



- **Key Points**
  - Engage with local community groups in urban forest stewardship activities
  - Provide up-to-date information about tree protections and management on the City website

Chapter 6

- **Objective 3:** Connect with the community around tree stewardship.

  Action 8. Become a Tree City USA

  - **Key Points**
    - Plan celebratory activities for Arbor Day

Street Tree Management Plan

- **Next steps:**
  - Incorporate feedback from PROS commission
  - City council

Thank you!

Ryan Suttle

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