



CITY OF CARMEL-BY-THE-SEA AGENDA

Contact: 831.620.2000 www.ci.carmel.ca.us

Carmel Forest Master Plan Steering Committee:
Tamara Michie, Kelly Brezoczky, Neal Rutta
Harry Ross, Sarah Berling, Peter Quintanilla
Maria Sutherland, Donna Jett, Linda Smith,
Bill Taormina

City Council Chambers
East Side of Monte Verde Street
Between Ocean and 7th Avenues

Carmel Forest Master Plan Steering Committee Special Meeting

**Tuesday, October 21, 2025
10:00 AM**

HYBRID MEETING ATTENDANCE OPTIONS

This meeting will be held in person and via teleconference ("hybrid"). The public is welcome to attend the meeting in person or remotely via Zoom. However, the meeting will proceed as normal even if there are technical difficulties accessing Zoom. The City will do its best to resolve any technical issues as quickly as possible. To view or listen to the meeting from home, you may also watch the live stream on the City's YouTube page at: <https://www.youtube.com/@CityofCarmelbytheSea/streams>. To participate in the meeting via Zoom, copy and paste the link below into your browser and enter the passcode.

<https://ci-carmel-ca-us.zoom.us/j/85815894877>

Webinar ID: 858 1589 4877

Passcode:814782

Dial in: (253) 215-8782

HOW TO OFFER PUBLIC COMMENT

The public may give public comment at this meeting in person, or use the Zoom teleconference module, provided that there is access to Zoom during the meeting. Zoom comments will be taken after the in-person comments. The public can also email comments to yculver@ci.carmel.ca.us. Comments must be received at least 2 hours before the meeting in order to be provided to the legislative body. Comments received after that time and up to the beginning of the meeting will be made part of the record.

CALL TO ORDER AND ROLL CALL

PUBLIC APPEARANCES - Limited to items on the agenda

Public comments are permitted on items listed on the agenda. Each speaker has 3 minutes to speak unless otherwise adjusted by the Chair. While stating your name is optional, it helps to identify speakers in the meeting minutes. Remote or in-person participants who do not comply

with the requirements of the Brown Act will be muted.

ANNOUNCEMENTS

ORDERS OF BUSINESS

- 1) Review of the Draft of the Carmel Forest Master Plan

ADJOURNMENT

CORRESPONDENCE

This agenda was posted at City Hall, Monte Verde Street between Ocean Avenue and 7th Avenue, Harrison Memorial Library, located on the NE corner of Ocean Avenue and Lincoln Street, the Carmel-by-the-Sea Post Office, 5th Avenue between Dolores Street and San Carlos Street, and the City's webpage (<http://www.ci.carmel.ca.us>) in accordance with applicable legal requirements.

SUPPLEMENTAL MATERIAL RECEIVED AFTER THE POSTING OF THE AGENDA

Any supplemental writings or documents distributed to a majority of the board regarding any item on this agenda received after the posting of the agenda will be available for public review at City Hall, located on Monte Verde Street between Ocean and Seventh Avenues during regular business hours.

SPECIAL NOTICES TO PUBLIC

In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, please contact the City Clerk's Office at 831-620-2000 at least 48 hours prior to the meeting to ensure that reasonable arrangements can be made to provide accessibility to the meeting (28CFR 35.102-35.104 ADA Title II).



CITY OF CARMEL-BY-THE-SEA

Staff Report

October 21, 2025
ORDERS OF BUSINESS

SUBMITTED BY: Justin Ono, City Forester

SUBJECT: Review of the Draft of the Carmel Forest Master Plan

RECOMMENDATION:

Review the Draft of the Carmel Forest Master Plan and provide feedback

BACKGROUND / SUMMARY:

In October 2024 the Carmel Forest Master Plan (CFMP) Steering Committee held a two-day public meeting for feedback on the early administrative draft provided by Davey Resource Group. Feedback from those sessions was then taken by Environmental Consultant Nicole Nedeff and edited down to better reflect the public and the Steering Committee's vision for the plan. The purpose of this meeting is to review that draft, which was further reviewed by staff and to provide feedback for edits prior to sending to our Environmental Consultant Dudek for CEQA review.

FISCAL IMPACT:

None at this time

ATTACHMENTS:

1. Draft Update to the CFMP_v2

Draft - Carmel-by-the-Sea 2025 Forest Management Plan

Executive Summary

The 2025 Forest Management Plan outlines Carmel-by-the-Sea's strategy for managing and enhancing its unique urbanized forest. Building upon previous plans, this update incorporates new data, stakeholder input, and current environmental challenges, particularly those posed by climate change and the adoption of the California Community Wildfire Protection Plans (CWPP). The Plan establishes clear goals and implementation strategies to guide both City operations and community stewardship efforts.

Purpose of the Plan:

- Establish baseline information on forest conditions and management needs.
- Promote a shared vision and coordinated care for Carmel's forest.
- Advance strategic goals including forest health, public safety, climate resilience, and community involvement.
- Update and reaffirm commitments from the 2001 Forest Plan.

Plan Organization:

1. Introduction
2. Current Conditions
3. Forestry Operations
4. Goals and Objectives
5. Implementation Guidelines
6. References and Appendices
- 7.

1. Introduction

Carmel-by-the-Sea is renowned for its scenic beauty, artistic heritage, and distinctive natural coastal environment. Central to its charm is an expansive and historic forest canopy comprised predominantly of Monterey pines, coast live oaks, and Monterey cypress trees. The urbanized forest defines the City's character and quality of life and provides essential ecological, aesthetic, and cultural benefits.

Forest conservation has long been a community priority, evidenced by decades of protective ordinances, city plans, and civic engagement. The City adopted its first Forest Management Plan in 1971, followed by a second in 2001. The 2025 Forest Management Plan is a comprehensive update that reflects evolving ecological conditions, modern urban development patterns, and new climate realities.

Today, Carmel's forest faces unprecedented pressures—aging native trees, climate stressors, invasive species, and increased development are all reshaping the landscape. In response, the City has renewed its commitment to proactive forest stewardship, seeking sustainable solutions to preserve and enhance its urbanized forest.

The 2025 Plan was developed through a data-driven and community-informed process. The City engaged the Davey Resource Group to conduct a citywide tree canopy assessment, evaluate current forestry operations, and help guide strategic planning. Davey's work involved:

- High-resolution aerial and infrared imagery to assess tree canopy and land cover.
- An inventory of public trees, excluding a few key natural areas.
- A review of city ordinances, development codes, and operational procedures.
- Community outreach via surveys, public meetings, and input from the Forest and Beach Commission and stakeholder groups.

The planning process yielded essential insights:

- Carmel retains a valuable but vulnerable urbanized forest.
- Native tree canopy is declining due to age, development, intentional planting of non-native trees, and invasive competition.
- Funding and staffing have not kept pace with maintenance needs.
- Community support for preserving and enhancing the forest remains strong.

This Plan aligns with other key city and state frameworks, including the City's Climate Adaptation and Action Plan (2022), Wildfire Protection Standards, and the Local Coastal Program. It builds upon the foundational goals of the 2001 Plan and utilizes data collected by the Davey Resources Group (2024), while addressing current and projected forest management challenges.

The 2025 Forest Management Plan is both a strategic and operational document. It establishes clear goals and objectives, recommends practical actions, and offers implementation tools for City staff, private landowners, and community partners. Through this Plan, Carmel continues its legacy of forest stewardship and reaffirms its identity as a village in a forest by the sea.

2. Current Conditions

Carmel-by-the-Sea encompasses approximately 1 square mile (676.3 acres). A total of 61% of land in the City is privately owned (412.1 acres), while publicly owned lands comprise 39% of Carmel's land area (264.2 acres). The community's vegetation cover occurs not only on public land but also on private property and is hugely important in defining the character of the Carmel's urbanized forest.

Despite strong conservation values and longstanding regulations, the condition of Carmel's urbanized forest faces several complex challenges:

Decline in Native Canopy

Native tree species such as Monterey pine and coast live oak, once the dominant components of Carmel's forest landscape, are aging and in decline. Many of these trees are experiencing increasing mortality and structural failure risks. As these sentinel trees die, replacement efforts have not kept pace, leading to a slow erosion of the city's iconic canopy.

Increasing Presence of Invasive and Non-native Species

The forest is shifting toward a more fragmented and species-diverse composition due to non-native plant introductions and invasive species expansion. These species often outcompete native flora, degrade habitats, and reduce ecological integrity.

Development Pressures

Residential redevelopment and intensification—particularly the trend of larger homes replacing smaller cottages—has reduced root zones and above-ground space available for tree establishment and growth. It has become less feasible for in-kind replacement of larger trees due to space, power line and climate considerations.

Infrastructure Conflicts

Tree roots and canopies increasingly conflict with overhead utility lines and underground infrastructure. Regulations require clearance around power lines, and roots can damage pipes and pavement, complicating planting opportunities.

Fragmented Stewardship

Carmel’s forested environment exists across a mosaic of public and private lands, creating management inconsistencies. City control is limited on private property, where a significant portion of the canopy resides. This fragmentation complicates enforcement, restoration, and coordinated canopy management.

Maintenance and Resource Deficits

Forestry staffing and funding have not kept pace with escalating management needs. The current budget and personnel cannot support proactive care, comprehensive inspections, or timely tree replacements. This has led to reactive rather than preventive maintenance, exacerbating risks and long-term costs.

Forest Health Trends from 2022–2024 Davey Analysis:

The Davey Resource Group’s multi-year assessment provides a detailed snapshot of the composition, age, and condition of Carmel’s public trees and urban forest canopy. Key findings include:

- **Canopy Coverage (Figure 1):** Carmel’s total tree canopy coverage is approximately 36% of the city’s land area. This includes both public and private trees.

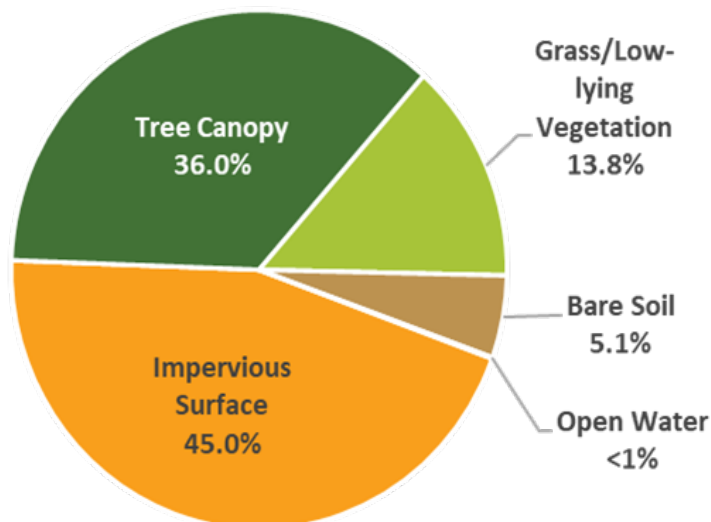


Figure 1 – General Land Cover

- **Public vs. Private Land (Figure 2):** Public lands (39% of city acreage) maintain a slightly higher canopy percentage (40%) compared to private lands (33%). Given the significant portion of canopy on private land, promoting residential stewardship is important.

Land Ownership	Acres	Canopy Acres	Canopy %	Impervious Acres	Grass/Low-lying Veg. Acres	Bare Soil Acres	Open Water Acres	Potential Canopy %
Private Land	412.09	137.55	33.38	50.45	15.53	0.64	0.00	48.64
Public Land	264.22	105.71	40.01	36.58	11.09	12.14	0.18	47.22
Total	676.31	243.26	35.97%	87.03	26.62	12.78	0.19	48.08%

Figure 2 – Land Cover on Public and Private Property

- **Species Composition (Figure 3 & 4):** Among 200 inventoried species, the most prevalent are coast live oak (40.2%) and Monterey pine (18.1%). The remaining 41.7% comprise other native and non-native species.

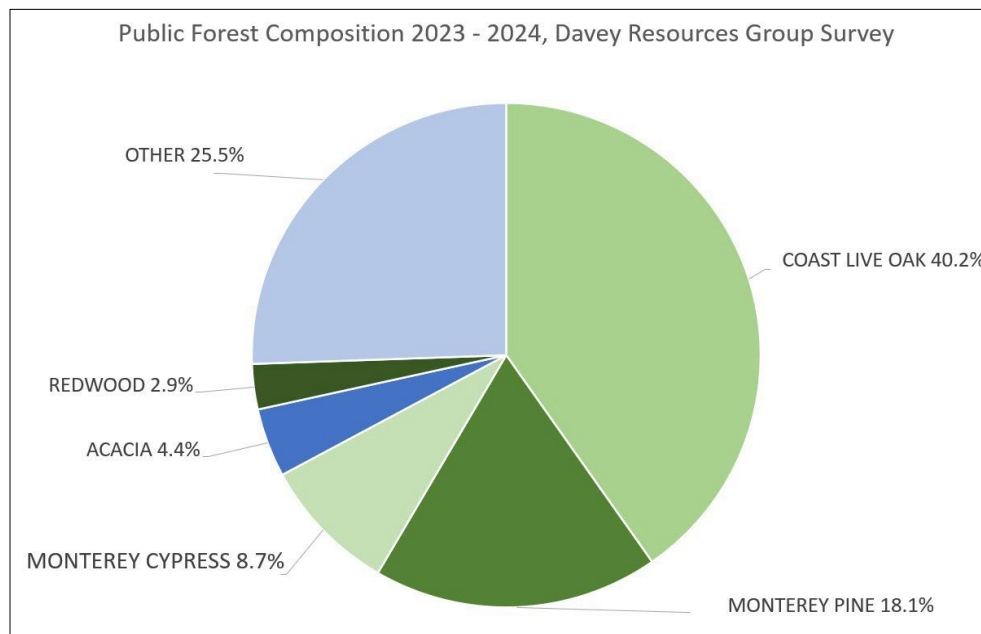


Figure 3 – Results of 2023-2024 Davey Resources Group survey of Carmel’s Public trees.

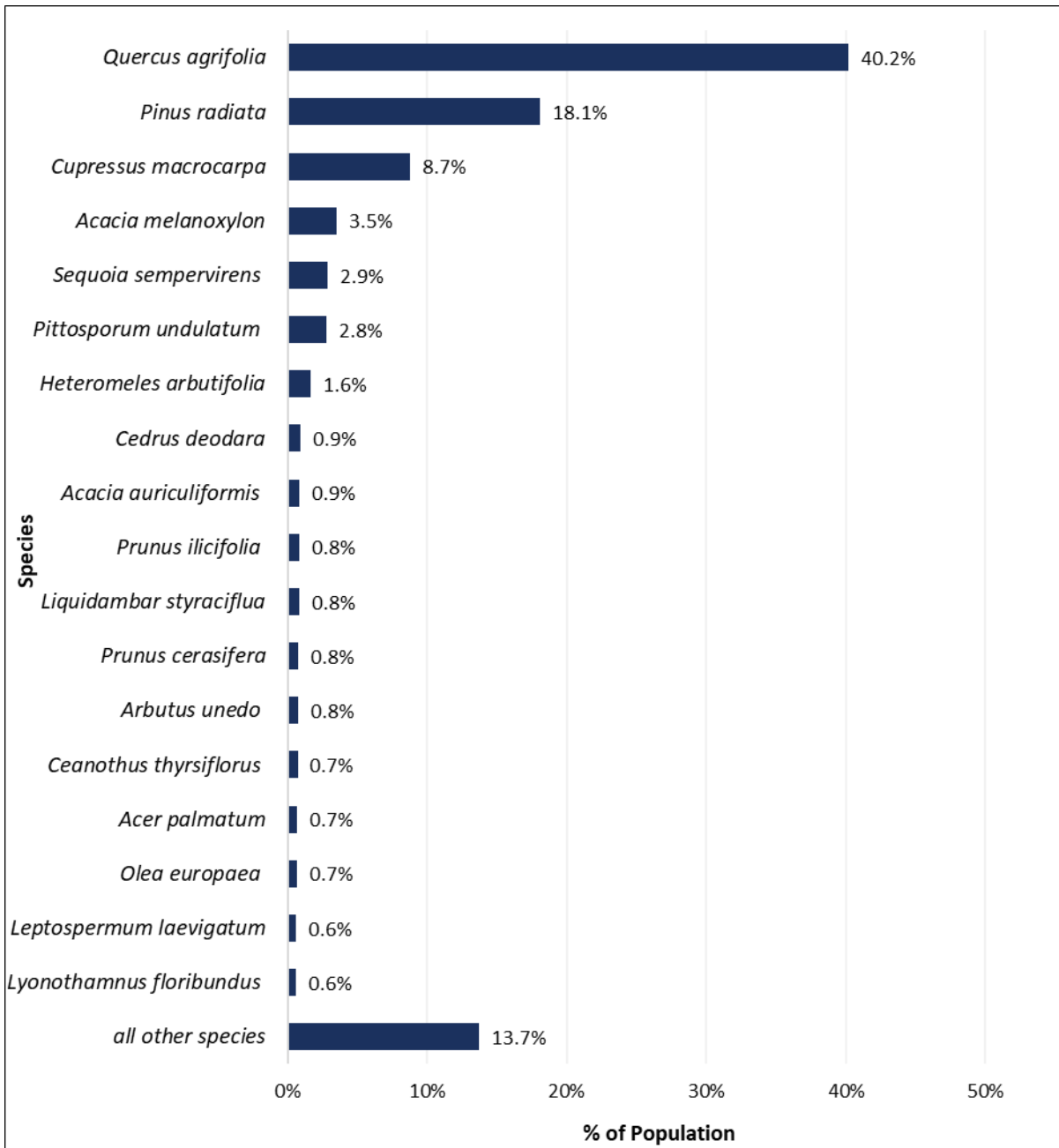


Figure 4 – Species Diversity in Carmel’s Public Tree Inventory

- Tree Age Distribution (Figure 5):** A healthy urban forest includes a range of age classes. Currently, 47% of public trees are less than 8 inches in diameter (DBH), indicating a young and regenerating forest. However, there is an underrepresentation of mature trees (24"+ DBH), suggesting a potential future gap in canopy cover if these younger trees do not reach maturity.

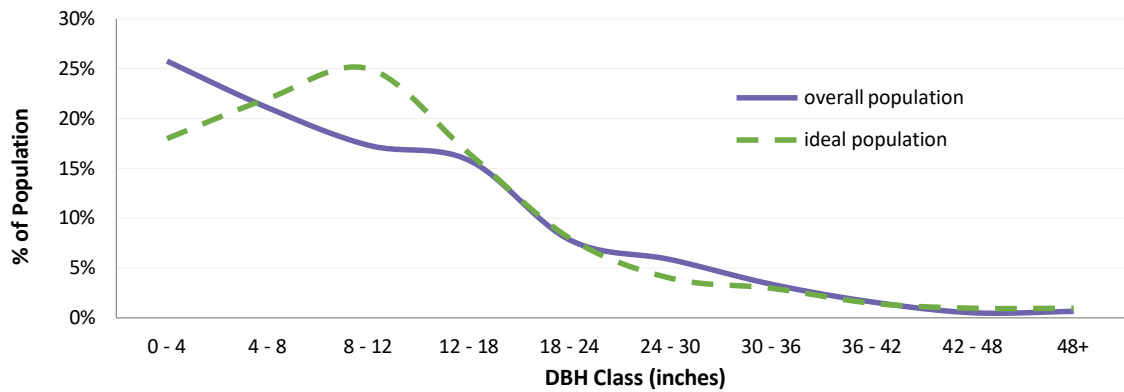


Figure 5 – Age Distribution of Carmel's Public Trees

- Tree Condition (Figure 6):** Overall, 90.6% of inventoried trees are in fair or better condition—43.9% rated as good, 46.7% as fair. A smaller portion (approximately 9%) are in poor, very poor, or dead condition. Among trees in poor condition, 30% are 18 inches or more in diameter, reflecting aging and potentially hazardous trees. Over time tree condition can change due to environmental, physical, or other impacts.

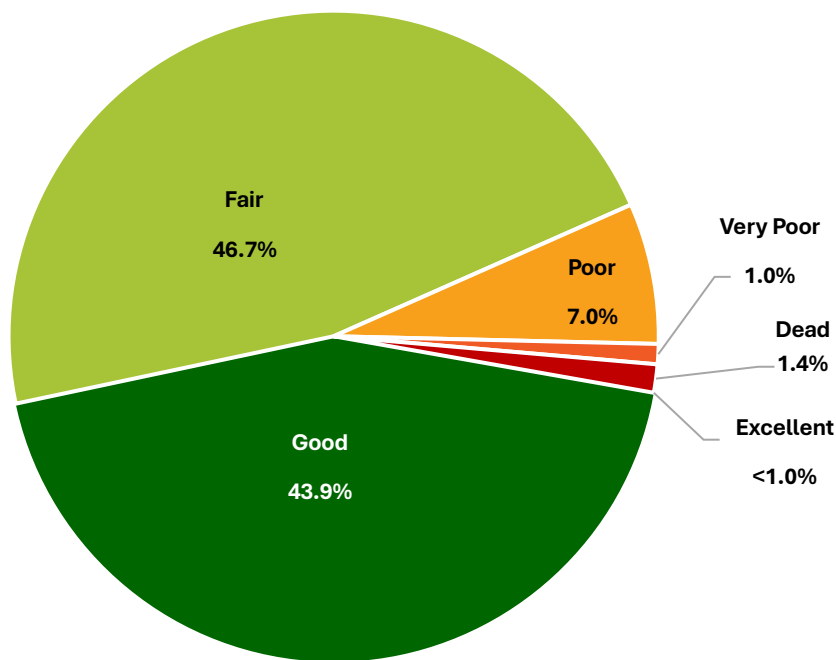


Figure 6 – Condition of Public Trees

- Forest Value and Ecosystem Services:** The city’s public tree resource is valued at \$25.2 million. Trees provide an estimated \$151,719 in annual environmental benefits, including (Davey, 2024):
 - \$72,206 in carbon dioxide reduction
 - \$45,285 in improved air quality
 - \$31,228 in avoided stormwater runoff
 -
- Inventory Gaps:** Approximately 2,000 trees located in key areas such as Mission Trail Nature Preserve and Forest Hill Park were not included in the initial assessment. These areas must be inventoried to develop a truly comprehensive picture.
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- Historical Comparison (Figure 7):** Comparison with 2009 General Plan data indicates a long-term trend: Monterey pine coverage continues to decline, while oaks, cypress, and non-native trees gradually increase. This underscores the need to prioritize Monterey pine regeneration and maintain native tree dominance.

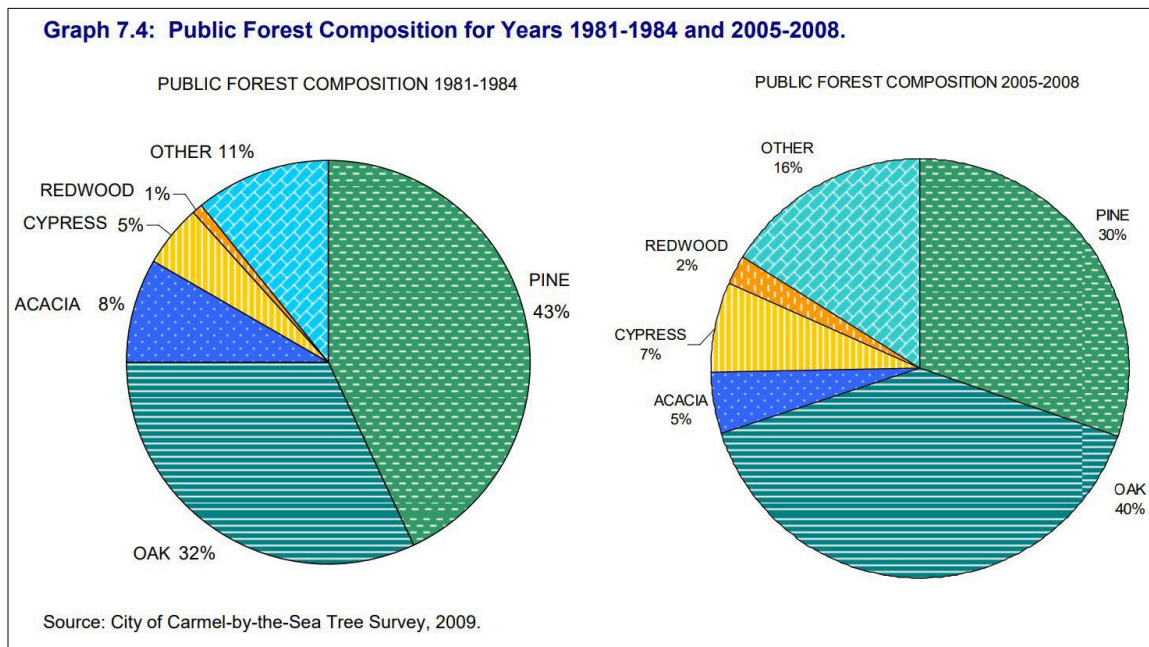


Figure 7 – Public Forest Cover from 2009 General Plan/Local Coastal Program Update

Summary of Conditions Assessment

- Public trees: 90.6% are in fair or better condition; 9% are in poor or worse.
- Monterey pine makes up 18.1% of the public tree inventory; coast live oak 40.2%.
- Over 200 tree species identified; 47% of trees are young (<8" DBH).
- An estimated \$1.1M in pruning and \$1.8M in removal work is needed (Davey, 2024).
- Key areas (Mission Trail Nature Preserve and Forest Hill Park) have yet to be fully inventoried.

These insights highlight both strengths and vulnerabilities in the city's forest. While the forest is largely healthy and includes a strong base of younger trees, the gradual loss of mature natives and aging infrastructure requires prompt, strategic action to ensure long-term sustainability.

3. Forestry Operations

The Division of Forest, Parks and Beach is a branch of the Carmel-by-the-Sea Public Works Department. The Division is led by the City Forester and is responsible for the maintenance of nearly 10,000 public trees and other vegetation (plants, shrubs, etc.) within the public rights-of-way, parks, and public places. Additionally, the Division provides consultation assistance for private landowners regarding trees.

The Division of Forest, Parks and Beach currently provide the following forest and tree-related services:

- Tree inventory management
- Pruning
- Removals
- Debris management
- Tree planting and establishment
- Service requests
- Tree inspections and risk assessments
- Program administration
- Contract monitoring
- Emergency response
- Development review, tree protection, and mitigation

Each of the specific services listed above is further described in Appendix B, Forestry Department Services, which provides a detailed explanation and assessment of the Division's diverse responsibilities.

Staff Structure (6.25 FTE):

- City Forester (1 FTE)
- Assistant Forester (1 FTE)
- Tree Care Specialist (1 FTE)
- Maintenance Workers (3 FTE)
- Administrative Analyst (0.25 FTE)

Carmel by the Sea also works with vetted contractors when assistance with vegetation management is needed.

4. Goals and Objectives

Goal 1: Proactively Manage Public Trees and Forest Resources

To ensure long-term forest sustainability, the City must move from reactive tree care toward proactive, planned management. Proactive management helps mitigate risk, improve ecological function, and maintain the urban forest's structure and diversity. Table 1 at the end of this section summarizes the goals, objectives, actions, and how we would track our success.

Objectives and Actions:

- **1.1 Tree Health and Diversity:** Maintain and periodically update the Recommended Species List. Prioritizing native, drought-tolerant, and climate-resilient species supports biodiversity and ensures that planted trees can thrive under future environmental conditions. Sourcing from local genetic stock maintains ecological integrity and reduces disease vulnerability.
- **1.2 Risk and Maintenance Planning:** Develop a formal Tree Risk Management Strategy to reduce liability and protect public safety. Regular inspections and condition assessments help identify hazards before failures occur, and scheduled maintenance reduces emergency costs and prolongs tree lifespan. Focus on replacing hazardous trees with appropriate species
- **1.3 Staffing and Equipment:** Adequate staffing and equipment is essential for effective forest management. Filling vacant positions and training staff on safety standards and arboriculture best practices enable timely inspections, safe and efficient response times, and operational coordination. Additionally, conducting a Workforce Analysis will help determine resource needs. Assessing, replacing and/or expanding equipment resources reduces dependence on external contractors and allows for timely responses to issues.
- **1.4 Data and Technology:** Maintain a current tree inventory using software/databases. Real-time tracking of removals, plantings, and maintenance enables data-driven decisions and better resource allocation. Keeping this data current supports transparency and strategic planning.

Goal 2: Maintain a Minimum of 35% Canopy Cover

Maintaining canopy cover improves air and water quality, reduces heat islands, and preserves the City's visual and cultural character. This goal focuses on optimizing space for planting and ensuring tree longevity.

Objectives and Actions:

- **2.1 Strategic Planting:** Use data-driven tools (such as Davey's planting model) to identify priority planting areas (right trees/right place methodology). Prioritize and select locations that offer the highest environmental return maximizes benefits like stormwater retention and shading. Legacy groves in parks and open spaces help replace canopy lost to development.
- **2.2 Private Property Engagement:** Since significant portion of the city's tree canopy is on private land, community participation is vital. Education and incentive programs for homeowners encourage preservation and new plantings on residential lots. This includes creating a Private Forest Stewardship Guide to provide tree care best practices, planting techniques, and a recommended list of native and climate-resilient species for homeowners. Additionally, develop various incentive programs for homeowners such as permit fee reductions, planting incentives, or public recognitions for fore-friendly practices.

- **2.3 Canopy Monitoring:** Conduct canopy assessments every 5–10 years to track trends, evaluate progress, and adjust strategies. This ensures efforts remain effective and responsive to changes in development or climate.
- **2.4 Establish Measurable Forest Management Goals:** A successful Forest Management Plan requires more than vision—it must be measurable and accountable. It's critically important to transform this plan into action and results, and to be transparent to build public trust. Actions include identifying target metrics, developing and publishing annual tree maintenance and planting targets and improving accomplishment reporting and transparency.

Goal 3: Promote Community Stewardship and Appreciation

A well-informed and engaged community is essential for sustaining Carmel's urban forest. By fostering a culture of shared responsibility, the City can extend its capacity and achieve long-term goals.

Objectives and Actions:

- **3.1 Public Education:** Providing educational materials about native species, proper tree care, and the ecological value of trees empowers residents to contribute meaningfully. Public outreach helps shift perceptions and behaviors toward stewardship.
- **3.2 Volunteer Engagement:** Formalizing partnerships with groups like Carmel Cares and Friends of Carmel Forest allows the City to expand planting, watering, and maintenance activities. Designating a Volunteer Coordinator strengthens coordination and impact.
- **3.3 Recognition and Events:** Celebrating Arbor Day and publishing an annual "State of the Urban Forest" report enhances community pride and transparency. Pursuing Tree City USA status provides validation of the City's commitment to urban forestry best practices.

Goal 4: Preserve Carmel's Unique Forest Character and Natural Resources

Carmel's forest is part of a rare coastal ecosystem that shapes the community's identity. Protecting this natural heritage requires thoughtful land use planning, code updates, and targeted conservation actions.

Objectives and Actions:

- **4.1 Habitat Protection:** Enhancing habitat connectivity through strategic plantings supports biodiversity and ecosystem health. Using native trees and understory species ensures continuity with the regional landscape and sustains pollinators, birds, and other wildlife.
- **4.2 Policy Alignment:** Municipal codes should reflect updated forest goals. Clarifying tree protection regulations, expanding setback requirements, and enabling enforcement ensures better outcomes during development and tree removal decisions.
- **4.3 Climate Resilience & Adaptive Forest Practices:** Urban trees mitigate climate-related impacts such as heat, drought, and stormwater runoff. Prioritizing species with tolerance to drought, heat, and pests using an adaptive selection guide and using local genetic stock to support resilience and resistance ensures forestry practices reflect future conditions and preserves ecosystem services.

Goal 5: Integrate Wildfire Resilience into Forest Management

Wildfire preparedness is critical to preserving Carmel’s forest, safeguarding residents, and protecting irreplaceable public and private assets. As climate change accelerates wildfire risk, incorporating fire mitigation into daily forestry practices ensures a safer and more sustainable future. The City of Carmel-by-the-Sea, along with Monterey and Pacific Grove, has a Community Wildfire Protection Plan (CWPP). This plan, completed in November 2023, aims to reduce wildfire risk and increase community resilience. The CWPP identifies areas and action items for mitigating wildfire risk.

Objectives and Actions:

- **5.1 Vegetation and Fuel Management:** Strategic vegetation management reduces wildfire intensity and spread, particularly in wildland-urban interface areas. Utilizing risk-based prioritization and site-specific approaches improves long-term effectiveness.

To implement this objective, the City will identify and map formal fuel management zones in and adjacent to high-risk areas such as Mission Trail Nature Preserve, Pescadero Canyon, and Forest Hill Park. Annual fuel load assessments will be conducted to guide vegetation treatment priorities, using data from both the CWPP and the Davey Resources Group. Targeted understory thinning and ladder fuel removal will be carried out in critical locations, especially along park edges and the public-private interface, to reduce the risk of ignition and rapid fire spread. Species and age diversity will be promoted within these zones to increase the forest’s resilience to fire and support ecological recovery. Where feasible, the City will coordinate vegetation management efforts with adjacent property owners and partner agencies such as CAL FIRE to ensure cross-boundary effectiveness.

- **5.2 Strengthen Defensible Space:** Creating defensible space around structures helps protect homes and provides vital access for emergency responders. Consistent enforcement and homeowner education are key.

To strengthen defensible space compliance and effectiveness, the City will continue to enforce its Defensible Space Ordinance through annual inspections, focusing on properties in high-risk zones such as hillside neighborhoods and canyon perimeters. To assist residents in meeting requirements, the City will develop visual guides and property-specific checklists that reflect Carmel’s unique vegetation and architectural context. In partnership with Monterey County Fire and CAL FIRE, the City will conduct joint public outreach campaigns, wildfire preparedness events, and home-hardening assessments on an annual basis. In addition, the City will organize targeted workshops and demonstration projects to help residents understand and implement defensible space principles in a way that aligns with neighborhood character and ecological values..

- **5.3 Home and Infrastructure Hardening:** Physical improvements to structures and landscaping significantly reduce the chance of ignition from embers or radiant heat. This is especially important in a community with historic homes and dense tree cover.

The City will promote the use of fire-resistant building materials, including ember-resistant vents, non-combustible siding, and Class A fire-rated roofing, as part of new construction and renovation efforts. Retrofit programs will be encouraged, particularly for homes near designated fuel management zones, to increase the structural resilience of older and historic buildings. The City will also support fire-resistant landscaping practices by providing guidance on appropriate plant spacing, species selection, and maintenance techniques that reduce fire risk while maintaining the City's distinctive natural and cultural aesthetic.

- **5.4 Policy and Funding Alignment:** Wildfire resilience must be embedded in land use policy, capital planning, and city operations. Doing so improves coordination and increases access to external resources.

To align wildfire mitigation with broader municipal frameworks, the City will integrate wildfire resilience goals into the General Plan, Local Coastal Program, and Capital Improvement Plan. The Tree Ordinance will be amended to allow for the expedited removal of hazardous vegetation based on CWPP-defined risk factors and professional assessments. The City will actively pursue state and federal grant funding to support wildfire risk reduction, including opportunities for vegetation management, defensible space compliance, and infrastructure retrofits. Public-private partnerships will also be explored to expand the City's capacity to implement high-impact projects. Lastly, wildfire-resilient design and compliance with defensible space standards will be required for all applicable new developments and major renovation projects within identified risk areas.

Goal	Objective	Action	Tracking
1.0 Proactively Manage Public Trees & Forest Resources	1.1 Tree Health & Diversity	1.1.1 Maintain and adaptive recommended Species List emphasizing native, drought-tolerant, and climate resistant	
		1.1.2 Encourage genetic diveristy by sourcing from local seed stock	
	1.2 Risk & Maintenance Planning	1.2.1 Implement a comprehensive Tree Risk Management Strategy	
		1.2.2 Schedule regular inspections and proactive pruning.	
		1.2.3 Replace hazardous trees with appropriate species	
	1.3 Staffing & Equipment	1.3.1 Fill key vacancies	
		1.3.2 Conduct Workforce Analysis to determine staffing & resource needs	
		1.3.3 Assess, replace and/or expand equipment resources	
		1.3.4 Provide trainig on safety standards and arboricultural best practices	
	1.4 Data & Technology	1.4.1 Maintain an up-to-date tree inventory using avaliable software/databases	
		1.4.2 Track removals, plantings, and maintenance to inform decision-making	
	1.5 Establish Measurable Forest Management Goals	1.5.1 Identify target metrics; develop and publish annual tree maintenance and planting targets	
		1.5.2 Improve transparent accomplishment reporting	
	2.0 Maintain a Minimum of 35% Canopy Cover	2.1 Strategic Planting	2.1.1 Prioritize planting in underserved areas, medians, parks, and indentified "legacy grove" sites.
2.1.2 Align efforts with the Davey Group's planting model.			
2.2 Private Property Engagement		2.2.1 Create and distribute a Private Forest Stewardship Guide to provide tree care best practices, planting techniques, and recommeded list of native and climate-resilient species	
		2.2.2 Develop incentive programs for private homeowners	
2.3 Canopy Monitoring		2.3.1 Conduct citywide canopy assessments every 5-10 years using aerial imagery	
		2.3.2 Adjust strategies based on trends	
3.0 Promote Community Stewardship & Appreciation	3.1 Public Education	3.1.1 Develop educational material about local tree species, planting guidelines, and benefits of urban forestry.	
		3.1.2 Distribute material to new residents and make publicly accessible	
	3.2 Volunteer Engagement	3.2.1 Support groups like Carmel Cares and Friends of Carmel Forest.	
		3.2.2 Designate a Volunteer Coordinator to streamline outreach and project planning.	
	3.2 Recognition and Events	3.2.1 Publish annual State of the Urban Forest report.	
		3.2.2 Celebrate Arbor Day and Earth Day	
3.2.3 Pursue and maintain Tree City USA designation			
4.0 Preserve Carmel's Unique Forest Character & Natural Resources	4.1 Habitat Protection	4.1.1 Restore and maintain native understory and habitat areas	
		4.1.2 Coordinate planting to support wildlife corridors	
	4.2 Policy Alignment	4.2.1 Update municipal codes to reinforce forest goals, including tree protection and incentive for native plantings	
	4.3 Climate Resilience	4.3.1 Prioritize species with tolerance to drought, heat, and pest/disease	
4.3.2 Utilize local genetic stock to support resilience and resistance			
5.0 Integrate Wildfire Resilience into Forest Management	5.1 Vegetation & Fuel Management	5.1.1 Identify and manage formal fuel zones in high-risk areas through annual assessments, targeted thinning, and interagency coordination to reduce wildfire risk	
	5.2 Strengthen Defensible Space	5.2.1 Enforce defensible space requirements through annual inspections, homeowner education, and joint outreach with fire agencies	
	5.3 Home & Infrastructure Hardening	5.3.1 Promote fire-resistant building materials and landscaping, and support retrofits to improve home resilience in high-risk areas	
	5.4 Policy & Funding Alignment	5.4.1 Integrate wildfire resilience into city plans and codes, streamline hazardous tree removals	
5.4.2 Seek funding from available sources (grants, public-private partnerships, etc.)			

Table 1 – Goals, Objections, Action, and Tracking

5. Implementation Guidelines

Implementation focuses on aligning the Plan with the General Plan and Local Coastal Program, ensuring legal consistency and integration with other City priorities.

Key priorities:

- Address deferred maintenance.
- Increase planting in identified priority zones.
- Expand “legacy groves” on public property.
- Monitor canopy trends using GIS and remote sensing.
- Secure sustained funding and staff resources.

Community Engagement:

- Publish annual “State of the Urbanized Forest” reports.
- Apply for and maintain Tree City USA designation.
- Leverage partnerships with volunteer groups.

6. References and Appendices

Includes data sources, historical plans, operational guidelines, updated species lists, planting models, and relevant codes and policies.

Conclusion

The 2025 Forest Management Plan offers a focused, updated, and actionable roadmap to protect and enhance Carmel-by-the-Sea’s iconic urbanized forest. Through strategic investments, community engagement, and adaptive practices, the City can preserve its forest heritage for future generations.