Sustainable
San Mateo County
Economy. Equity. Environment.

2026 INDICATORS REPORT

Tree Canopy Equity in San Mateo County

About Sustainable San Mateo County

Sustainable San Mateo County (SSMC) works toward a sustainable future for everyone in San Mateo County. Through information and advocacy, SSMC stimulates action to make the county more sustainable on economic, environmental and social equity issues, helping local governments, organizations and residents understand the challenges ahead and act on them.

This year marks the 30th edition of SSMC's Indicators Report. Since 1997, the report has evolved with the county's needs: it began as a collection of sustainability indicators, which now live in SSMC's online Sustainability Dashboard, and in recent years has offered an in-depth look at a single issue, from the well-being of children, youth and families, electric vehicle charging to food and climate, and this year, the urban tree canopy. Across its many forms, its purpose has remained the same: to inform and inspire action.

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Executive Summary

Urban trees are often considered scenery, but they work as community infrastructure. A healthy canopy cools streets and homes, slows stormwater runoff, makes walking and outdoor activity more comfortable, and supports physical and mental health. These functions grow more valuable as heat waves become more frequent and heavy storms intensify. The benefits of canopy, however, are not shared evenly: across many U.S. cities, the neighborhoods with the least tree cover are disproportionately lower-income and communities of color.

San Mateo County reflects this unevenness. Urban tree coverage varies widely across its jurisdictions and differs even more sharply between neighborhoods: nearly two thirds of the census tracts examined have 20% canopy or less. Between 2018 and 2022, urban tree canopy declined by 2% on average.

Sustainable San Mateo County's 2026 Indicators Report, "Tree Canopy Equity in San Mateo County," offers a shared countywide baseline and prioritization framework for protection and equitable planting. Drawing on 2022 USDA and CAL FIRE canopy data, census tract measures of community vulnerability, and interviews with city staff, planting organizations and community partners, the report shows where canopy stands and how it has changed, identifies Planting Priority Zones where low canopy and vulnerability converge, and examines the challenges and opportunities in growing and preserving the urban forest.

A more equitable urban forest will take sustained work from cities, the County, planting organizations and residents. This report is meant as a common starting point for that work, so that new trees reach the neighborhoods that need them most.

Canopy Varies Widely, and Most Neighborhoods Fall Short

Urban canopy across San Mateo County's jurisdictions averaged 21% in 2022, ranging from 7% in South San Francisco to 58% in Portola Valley. The gaps widen at the census tract, or neighborhood, level. Of the 170 census tracts analyzed, over a third (61 tracts) have 10% canopy or less, while nearly two thirds (109 tracts) have 20% or less, the threshold the report uses to define low canopy.

Tree Canopy Decreased Across San Mateo County

These gaps are growing. Between 2018 and 2022, urban tree canopy cover decreased by about 2% across California, reaching an average of 14.5%. In the same period, every San Mateo County jurisdiction except Portola Valley lost urban tree canopy. Twelve jurisdictions lost about 2% or less, in line with the statewide trend, while seven lost about 3% or more: Brisbane, Hillsborough, Millbrae, Pacifica, Belmont, San Carlos and Foster City. These losses mattered more in some places than others, since Foster City and Brisbane were already starting from low canopy.

Local Commitments

Work on trees is underway across San Mateo County, though it is unevenly distributed. Eleven municipalities hold a Tree City USA designation, most for more than 25 years, yet only two, South San Francisco and East Palo Alto, have adopted an Urban Forest Master Plan. Of the 19 jurisdictions with a Climate Action Plan, all but one include trees, most often through planting on public land. Fewer plans address the

post-planting phase, funding appears in only a few measures, and just three jurisdictions (Belmont, Burlingame and Pacifica) pair a target with a commitment to track progress.

Low Canopy and Social Vulnerability

Where canopy is lowest matters as much as how much there is. Socially vulnerable communities consistently have significantly lower urban tree canopy cover across global cities, and San Mateo County is no exception: tree canopy declines as the share of low-to-moderate income households rises. Urban canopy averages about 12% in neighborhoods where at least 51% of households have low-to-moderate income, and about 162,000 people, 22% of the county, live in the 37 tracts that combine low canopy with a majority of such households.

The racial composition of census tracts shows an even sharper pattern. Tracts where people of color make up 70% or more of residents average 11% canopy, while tracts where they are less than half the population average 29%. Nearly 320,000 people, 43% of the county's population, live in low-canopy tracts where at least 70% of residents are people of color.

Planting Priority Zones Point to Different Needs Across the County

These overlapping needs are the basis of the Planting Priority Zones. Where low canopy coincides with more than one community need, a limited planting budget can serve several goals. Priority Zones are census tracts with 20% canopy or less that also meet a social vulnerability threshold: at least 51% of households with low-to-moderate income, or at least 70% of residents who are people of color. Tracts with no added burden are Canopy Equity priority zones; the rest are Cooling priority (12 or more extreme heat days a year) or Health priority (11 or more emergency visits for heart attack per 10,000 residents).

In San Mateo County, 72 of the 109 low-canopy tracts qualify as Priority Zones. Tracts with the highest rates of heart attack emergency visits are concentrated in the north, especially in Daly City and South San Francisco, while the hottest tracts are in the south, in Redwood City, East Palo Alto and San Mateo. Another 37 low-canopy tracts, averaging 11% canopy, fall outside the priority criteria but still have inadequate tree cover.

Recommendations

1. Adopt an urban forest plan with clear, neighborhood-level canopy targets.

Context and rationale*:* An urban forest plan is what gives canopy commitment continuity beyond any single budget cycle or staff tenure. By setting long-term goals, multi-year budgets and monitoring cycles into governance, plans institutionalize canopy work and create a timeline that can survive political turnover (Battisti 2023; Wang 2024). Plans are most effective when citywide goals are translated into neighborhood-scale targets, since coarse, citywide averages can hide the gaps that matter and misallocate effort (Esperón-Rodríguez 2026; Treglia 2022). A plan works only as part of a broader system, tied to enforceable ordinances, private-land tools and monitoring (Hilbert 2019; Ordóñez-Barona 2021).

Most of the county's census tracts (64%) fall below 20% canopy, so expanding canopy is a matter of prioritization. Directing planting to the areas where low canopy overlaps with health and social vulnerabilities extends the benefits of trees, cooling, shade and support for physical and mental health to the entire community. The priority zones identified in this report provide that neighborhood-scale resolution. Targeting by mapped need also lets jurisdictions justify prioritization decisions and align efforts with planting organizations working across the county.

Within San Mateo County, South San Francisco's Urban Forest Master Plan (UFMP) established a canopy target, then with the 2040 General Plan the city committed to pursue the target at the neighborhood level, prioritizing disadvantaged neighborhoods. East Palo Alto's UFMP places a target of 20% tree canopy by 2062 and 30% tree canopy by 2122, and measured each neighborhood's canopy percentage coverage so that the plan's implementation could be better prioritized through an equity lens.

Main implementers*:* Local jurisdictions (plan adoption or amendment, target-setting, monitoring).

Partners*:* planting organizations (implementation capacity, community engagement).

2. Protect the existing urban forest through preservation ordinances, development review and incentives for retention.

Context and rationale*:* A mature tree provides far more shade and cooling than a newly planted one and takes decades to replace, so protecting standing canopy is even more important than adding to it. Replacing trees after removal does not recover the value of preserving them. In one modeling study, canopy still fell by roughly a third as aging trees were replaced (Czekajlo 2023). Land use and development is a leading driver of loss, with one study finding redeveloped residential lots lost around 44% of their trees over five years (Guo 2019, in Pike 2021). The best time to protect a mature tree from removal during construction is at the permitting stage, before work begins. A tree-preservations plan can be a prerequisite for a building permit. Ordinances work when they are comprehensive and enforced (Salisbury

2021; O'Herrin 2022) and penalties alone tend to provoke resistance, so regulation works best paired with incentives (Willis 2023; Ordóñez-Barona 2021). Developers report that the real barriers to keeping trees are site constraints, stormwater grading requirements, and cost (Willis 2023). Incentives that address these include density bonuses for preserving mature trees, reduced setback or parking requirements in exchange for retaining significant trees, expedited permitting for designs that meet canopy-retention goals, and fee reductions for projects with minimal tree disturbance; cost-neutral incentives such as lower lender interest rates for retaining trees are especially promising because they add nothing to a city's costs (Willis 2023). Enforcement tools such as protection standards during construction and performance bonds forfeited if retained trees die through negligence help ensure protection holds in practice. This must be balanced against other pressing needs, including affordable housing.

Main implementers*:* Local jurisdictions (ordinance adoption, permitting and capital-project review).

Partners*:* ISA-certified arborists (tree assessment), community-based organizations.

3. Support and incentivize trees on private property.

Context and rationale*:* The majority of plantable urban space on the Peninsula is privately owned, so meaningful canopy gains depend on reaching private land, where owners bear the cost and responsibility of the trees they hold and cities have limited authority to plant. The effective lever is making it easier and cheaper for residents to plant and retain trees. Free-tree programs that provide a tree and education while the resident takes on watering, as run in several cities across the County, including through the San Mateo County Library system and partners in the faith community. These efforts have extended canopy onto private land without a city being responsible for all the maintenance. Financial incentives help too: residents in one study asked their city not to charge for leaf cleanup and to offer tax credits for tree maintenance, treating upkeep as a real cost rather than assuming goodwill (Nascimento 2021). Neighboring Santa Clara County's Urban Forest Master Plan points to similar tools, recommending incentive programs such as stormwater fee credits and utility rebates linked to canopy results.

One barrier to owner consent in low-canopy rental areas is that owners' names may be unavailable to the city for privacy reasons (CityTrees). Planting organizations overcome these obstacles through in-person outreach: going door to door on targeted blocks and meeting residents at neighborhood events, which reaches people a mailing would miss and builds the trust that consent depends on.

A more structural fix may be the institution of a mandatory rent registry which would give the city the owner contact information it currently lacks, though as a housing-policy measure it sits outside the scope of tree planting itself.

Main implementers*:* Local jurisdictions (free-tree programs, rebates, maintenance incentives), planting organizations and community-based organizations (outreach and planting).

Partners*:* Residents and property owners.

4. Budget for maintenance and fund tree canopy as infrastructure.

Context and rationale*:* Tree survival, not planting, is often the true constraint. Watering is the single most important factor in whether a young tree lives, and maintenance capacity, not planting capacity, frequently sets the ceiling (Canopy; CityTrees). Post-planting care commitments run several years and are lengthening as the climate warms. Treating canopy as essential infrastructure, with dedicated, recurring funding rather than one-off spending, is what keeps trees alive long enough to deliver health and stormwater benefits. An urban forest plan makes tree planting and maintenance legible to budgeting and appropriations processes, giving them a structure for recurring funding rather than leaving them dependent on ad hoc spending (Andreu 2022).

Main implementers*:* Local jurisdictions (dedicated maintenance budgets, staffing).

Partners*:* Planting organizations (post-planting care), residents (watering agreements).

5. Invest in community education, engagement and stewardship

Context and rationale*:* When residents understand tree benefits and are actively engaged, planting programs achieve higher participation, better survival and stronger stewardship (Lee 2025; Choy 2024). Awareness alone is not enough; converting it to action requires sustained, culturally appropriate engagement (García 2025; Rogan 2023) and the physical presence of planting organizations in a neighborhood predicts resident stewardship, watering and caring for trees over time, more than persuasive messaging does (Wohldmann 2023).

In lower-income and historically disinvested neighborhoods, residents generally recognize the benefits of trees but may weigh them against real concerns, including maintenance costs and the risk of displacement due to increased property values (i.e., green gentrification) (Riedman 2022; Martin 2024). The response is not to withhold trees, which would deepen disadvantage, but to plant *with* residents rather than *for* them, pairing greening with attention to displacement and rebuilding trust where past efforts were imposed (Donovan 2021; Wolf-Jacobs 2023; Canopy; Rise South City).

Main implementers*:* Local jurisdictions (engagement programs), community-based organizations (trusted messengers, cultural relevance).

Partners*:* Planting organizations, schools.

6. Coordinate at the county level and support lower-capacity jurisdictions.

Context and rationale*:* Urban canopy-related efforts vary widely across the county: some jurisdictions have urban forestry divisions and watering trucks, while others rely almost entirely on planting organizations. A shared, countywide framework lets cities work from the same baseline and priorities, and helps smaller or lower-capacity jurisdictions act without building

a full program alone. Concretely, such a framework can include shared data, model policies; technical guidance; pooled procurement, such as county buying groups placing group orders of climate-adaptive stock (Canopy) and at bulk pricing; and municipal or distributed nursery models, including community nurseries, that secure local supply.

A metropolitan-scale strategy binding multiple jurisdictions to shared canopy targets, as in Melbourne (Hartigan 2021), illustrates the value of coordination for a county of many small cities. Santa Clara County proposes such a framework in its recently adopted Urban Forest Master Plan, a countywide effort spanning both incorporated and unincorporated areas.

Main implementers*:* San Mateo County (coordination, shared data and guidance).

Partners*:* Local jurisdictions, planting organizations, community-based organizations, utilities, public health agencies and nurseries.

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The views, findings and recommendations expressed in this document are solely those of SSMC. They do not necessarily reflect the opinions of any municipality, partner organization or reviewer, and no endorsement should be inferred.

SSMC welcomes comments and corrections. Please email info@sustainablesanmateo.org.

Key Terms

Area Median Income (AMI): the midpoint of household income in a given area, meaning half of households earn more and half earn less. The U.S. Department of Housing and Urban Development (HUD) uses AMI to set income thresholds for its programs.

Census tract: a small statistical area defined by the U.S. Census Bureau, generally home to between 1,200 and 8,000 people. This report uses census tracts to compare canopy and community conditions across the county.

Climate Action Plan (CAP): A strategic plan that guides local efforts to reduce greenhouse gas emissions and prepare for climate impacts. Although not always binding, CAPs set targets, outline actions and track progress, typically with public input and adoption by local governments.

County / county: In this report, *the County* (capitalized), or the *County of San Mateo*, refers to the county government. *San Mateo County*, or *the county* (lowercase), refers to the geographic area, including all incorporated cities and unincorporated areas within its boundaries.

Low canopy: in this report, census tracts or jurisdictions with 20% tree canopy or less. There is no single national standard; the threshold was set in consultation with local planting organizations and city staff.

Low-to-moderate income (LMI) household: a household earning below 80% of Area Median Income. HUD defines an area where at least 51% of households are LMI as a low-to-moderate income area.

People of color: in this report, residents who are Black, Latino, American Indian or Alaska Native, or Native Hawaiian or Pacific Islander.

Promotora/Promotor: a trusted community member who uses firsthand knowledge of local health and social issues, and of available resources, to educate others and promote healthier living in their community

Public right-of-way: land along streets and sidewalks, including planting strips, that a public agency (city, county or state) controls and maintains with public funds for public travel. Anyone has the legal right to use it, even where the underlying land is privately owned.

Replanting: Planting a new tree to make up for one that has been removed.

Restoration: Returning an area to a prior or intended condition, usually by reintroducing native species or rebuilding habitat function.

Urban Forest Master Plan (UFMP): a plan that sets a long-term vision, targets and guidelines for managing, expanding and protecting trees in an urban area.

Urban tree canopy (canopy cover): the share of land covered by trees (leaves, branches and stems) as seen from above, expressed as a percentage. Following the underlying canopy data, it is measured within the urban portions of census tracts, rather than across a jurisdiction's full land area.