Urban Forest Plan

Racial Equity Impact Analysis

CITY OF OAKLAND

Contents

Introduction

The purpose of a Racial Equity Impact Analysis (REIA) is to explicitly assess and design for racial equity in the City of Oakland's (City) policies and programs. The REIA process reflects "the City of Oakland's commitment to taking intentional steps to further racial equity [which] is essential to building and maintaining meaningful relationships with underserved communities." The goal is to "work with the community to create a city where everyone has access to the opportunities necessary to meet their essential needs, advance their well-being, and achieve their full potential."

This REIA is specifically designed to assess racial equity for Oakland's Urban Forest Plan ("Plan"), a fifty-year plan for the equitable growth and management of the urban forest. The comprehensive Plan 1) measures and assesses the current state of Oakland's trees and the resources put into maintaining and growing them, 2) identifies community desires for the urban forest through a comprehensive community outreach strategy, 3) identifies gaps in current City practices compared to industry best practices and community desires, and 4) establishes goals for a more equitable and healthy urban forest with strategies and concrete actions for reaching these goals. Equity considerations are a cornerstone of the entire Plan. Historical and current inequities in Oakland's urban forest are identified and examined, and actions to close the disparities are identified. Every strategy in the Plan has one or more identified equity components for prioritizing implementation in frontline communities – those communities that are most vulnerable due to racial discrimination, poverty, disability, housing insecurity, linguistic isolation, and poor air quality.

Racial Equity Outcomes

The Plan's desired outcomes include:

- **Equitable tree canopy distribution across Oakland, composed of healthy, thriving trees of various ages and sizes, all providing their many benefits to the communities where they grow and to the greater city.** Realistic equity in tree canopy is increasing canopy coverage percentages in frontline communities in the flatlands up to the City's average of 21.5%. Some frontline communities currently have less than 5% tree canopy coverage.

- **Stronger connections with the urban forest for all residents who live in frontline communities where tree canopy has been historically lacking.** These community members do not have access to the same number of trees and parklands as those living in more affluent communities of Oakland. The Plan identifies ways to both bring more trees into frontline communities through planting and bring frontline community members to existing trees by creating programming with partner organizations in city parks and recreation facilities.

- **Rebuilding of trust with all Oaklanders, especially for underserved frontline community members.** The City stopped the regular maintenance of all street and park trees in 2008. More affluent communities have taken on the maintenance responsibilities, but frontline communities do not have the resources to do so. The results of this are more trees in need of maintenance and potential tree failures in frontline communities, higher costs for community members who have had unmaintained trees fall on their vehicles, etc., as well as a distrust towards the City for not performing basic tree maintenance on trees under the City's care. The City can begin to rebuild community trust by reintroducing a routine tree pruning program and removing the responsibility of public tree care from residents.

- **Empowered frontline community members taking lead roles in decision-making on the urban forest in their communities, including tree planting, tree preservation, and urban greening generally.** Trees planted in and by the local community are more likely to survive, thrive, and grow to maturity than trees planted by the City or outsiders.[1] Empowering community members with authority and the tools they need to grow or support the urban forest is necessary for equitably growing Oakland's urban forest.

- **Frontline communities have the urban forest-related green infrastructure necessary for adapting to the effects of climate change.** We are already seeing the effects of climate change in storm events, flooding, ambient temperatures, and the increased duration and intensity of heat waves. Trees both reduce the speed of water runoff and the amount of water, allowing for more water infiltration and less flooding. Ambient air temperatures under tree canopies can

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[1] Austin, M. E. (2002). Partnership opportunities in neighborhood tree planting initiatives: Building from local knowledge. *Journal of Arboriculture, 28*(4), 178-186.

be as much as 25 degrees cooler in the summer, thereby providing some relief from intense heat.[2]

Current Impacts

Community members in frontline communities are disproportionately affected by the inequitable distribution of trees and inequitable services performed by the City.

Map 1 below shows tree canopy percentages across Oakland. The average citywide is 21.5%. It can be as high as 60% or more in the Oakland Hills, but less than 5% along the I-880 corridor (including and between West and East Oakland). Compare this map to the historic redlining map (Map 3) and the Oak Department of Transportation (OakDOT) Geographic Equity Toolbox Map (Map 4), and one will see similarities. Formerly redlined communities also have fewer trees and are rated as the high and highest priority areas on the Equity Toolbox Map. See Table 1 to see what demographic factors are used by the OakDOT Geographic Equity Toolbox Map for prioritizing census tracts.

Table 1: The OakDOT Geographic Equity Toolbox Map (Map 4) prioritizes census tracts based on seven demographic factors[3]:

Factor	Percentage
People of Color	25%
Low-income households (<50% area median income)	25%
People with disabilities	10%
Seniors 65 years and over	10%
Single-parent families	10%
Severely rent-burdened households	10%
Low educational attainment (less than a bachelor's degree)	10%

These community members are primarily Black, Indigenous, and People of Color (BIPOC), including the historically Black neighborhoods in West Oakland, Latino neighborhoods in and around Fruitvale and San Antonio, historically Chinese neighborhoods like Chinatown, and the many neighborhoods in East Oakland. The BIPOC population makes up 76% to 98% of the population in census tracts with less than 10% tree canopy and is rated as the "highest" priority.

Races and ethnicities included in the census data used for Map 4 include Black, American Indian, Asian, Pacific Islander, other, two or more races, and Hispanic/Latino. These community members are most impacted by the lack of tree canopy in their neighborhoods. The Plan identifies concrete ways to improve tree canopy for BIPOC community members by prioritizing all community engagement, tree planting, and tree care/maintenance

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[2]United States Federal Government. (n.d.). Landscaping for shade | department of energy. Energy.gov. https://www.energy.gov/energysaver/landscaping-shade

[3] City of Oakland geographic equity toolbox, version 2. City of Oakland. (2020, July). https://cao-94612.s3.amazonaws.com/documents/Methodology-Literature-Review-FINAL-Update.pdf

activities in these census tracts first before completing the same work in the low and lowest priority neighborhoods, which have significantly fewer BIPOC residents.

See **Tree Equity Score** for a third-party assessment of Oakland's tree canopy and benefits related to race, levels of poverty, and heat disparity.

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SCAN ME

CAL FIRE
SINCE 1885

think green
trees
clean air, add beauty,
welcome birds,
soothe people,
provide shade and
add property value,
think tree deep
an equitably greened
Oakland benefits all
Oaklanders

-ayodele nzinga,
Poet Laureate of Oakland

Bookmark created by Dr. Ayodele Nzinga, Oakland's Poet Laureate and cultural strategist for the Urban Forest Plan, were distributed to City Libraries, public schools, and community centers to advertise the Urban Forest Plan.

Map 1. Tree Canopy Cover in Oakland[4]

Census Tract

Canopy Percentage

◄ 70% Canopy

◄ 35% Canopy

◄ 0% Canopy

Map 2. Racial/Ethnic Majority in Oakland by Census Tract[5]

Majority Race Key

| White | Hispanic | Black | Asian | Multiple/Other |

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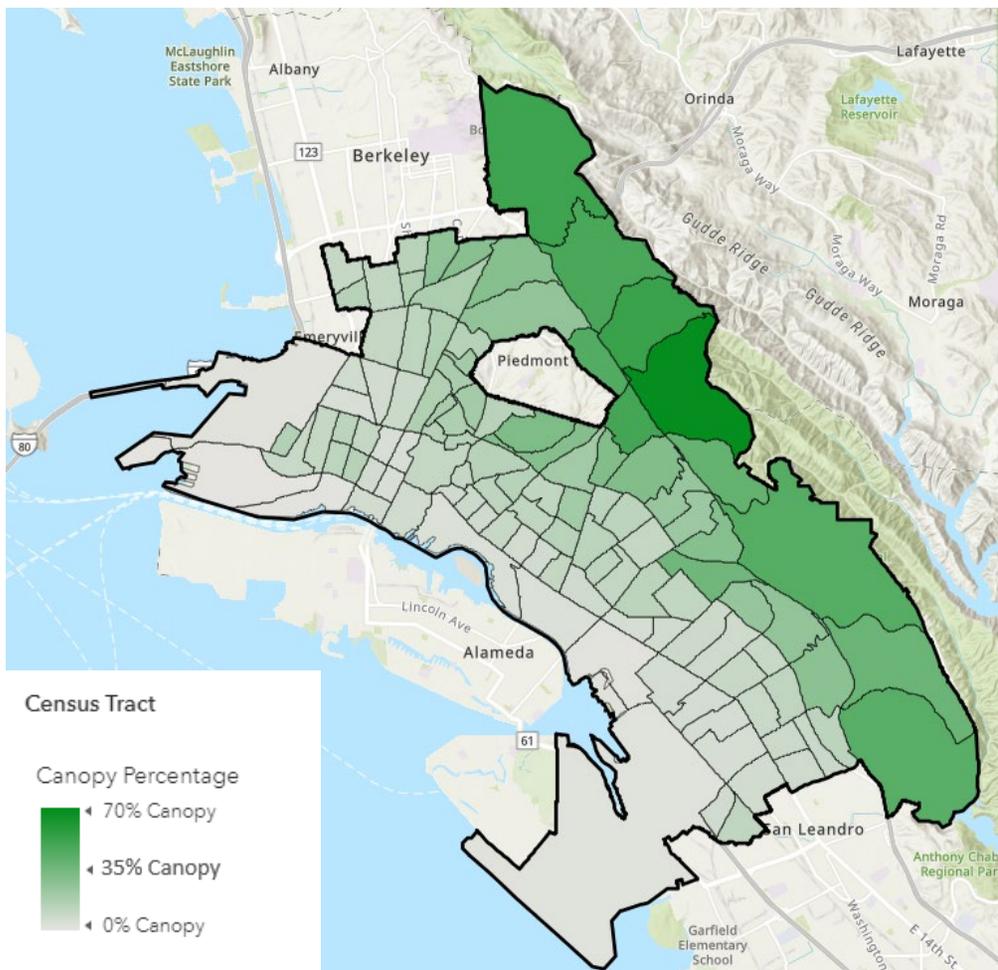
[4] Davey Resource Group. (n.d.). Treekeeper Canopy. https://canopy.treekeepersoftware.com/oaklandca
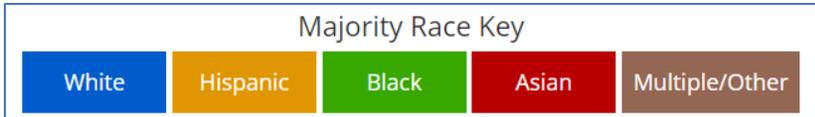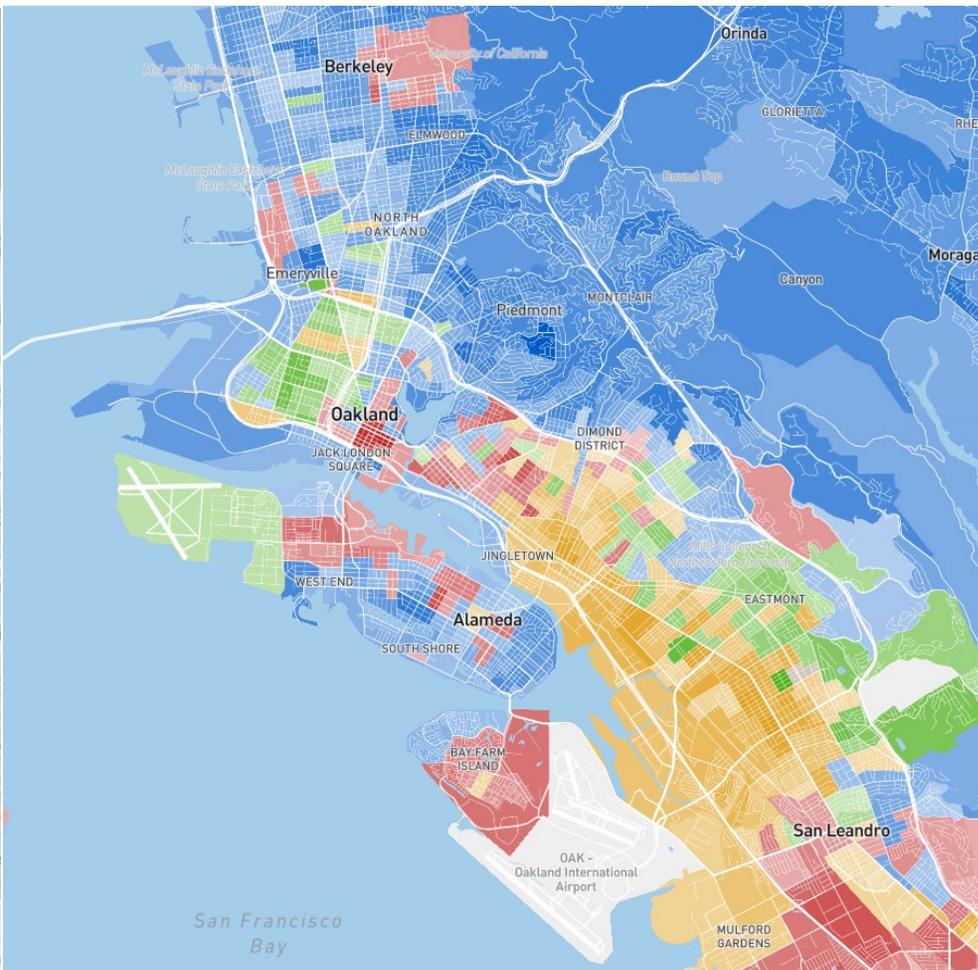
[5] Best Neighborhood. (n.d.). Race, diversity, and ethnicity in Oakland, CA | Bestneighborhood.org. https://bestneighborhood.org/race-in-oakland-ca/

Map 3. Historic Redlining Map[6]

Redlining Areas

- ☐ Council Districts
- Grade Commercial
- Grade A
- Grade B
- Grade C
- Grade D
- Areas Not Redlined

Map 4. OakDOT Geographic Equity Toolbox[7]

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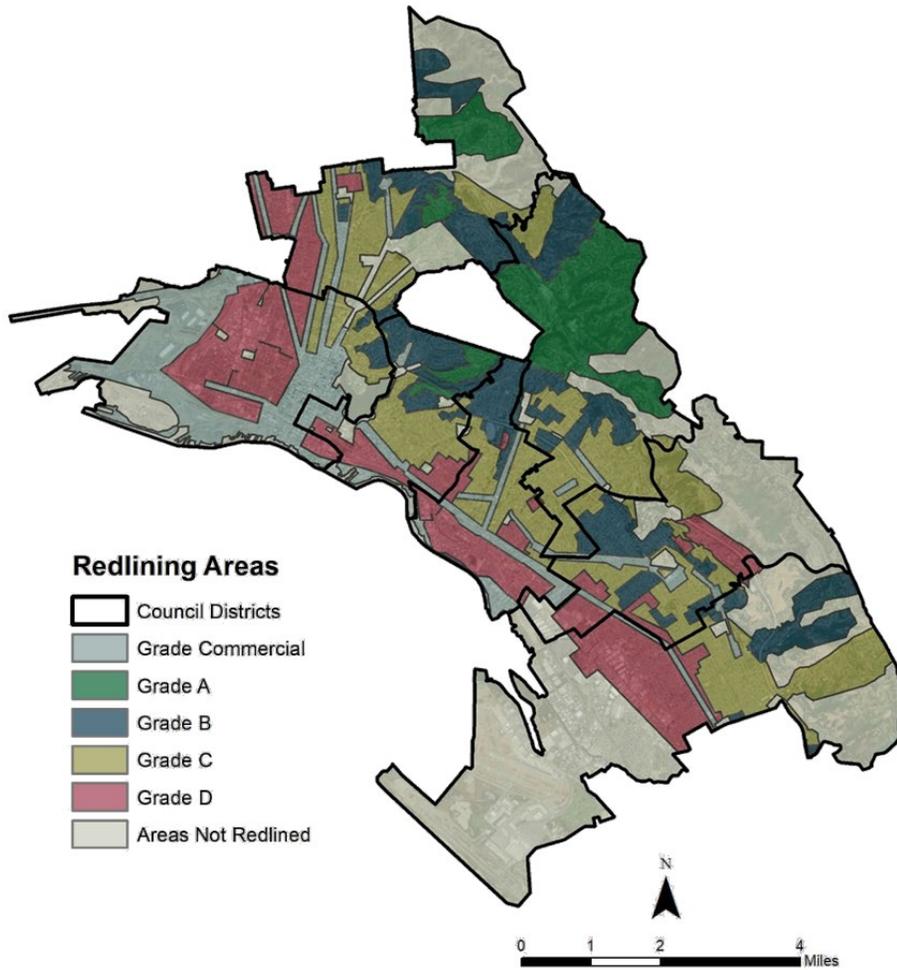
[6] Davey Resource Group (2021). Oakland, CA Urban Forest Council District Summary: https://cao-94612.s3.us-west-2.amazonaws.com/documents/Oakland-Council-District-Summary-Draft-2022.pdf
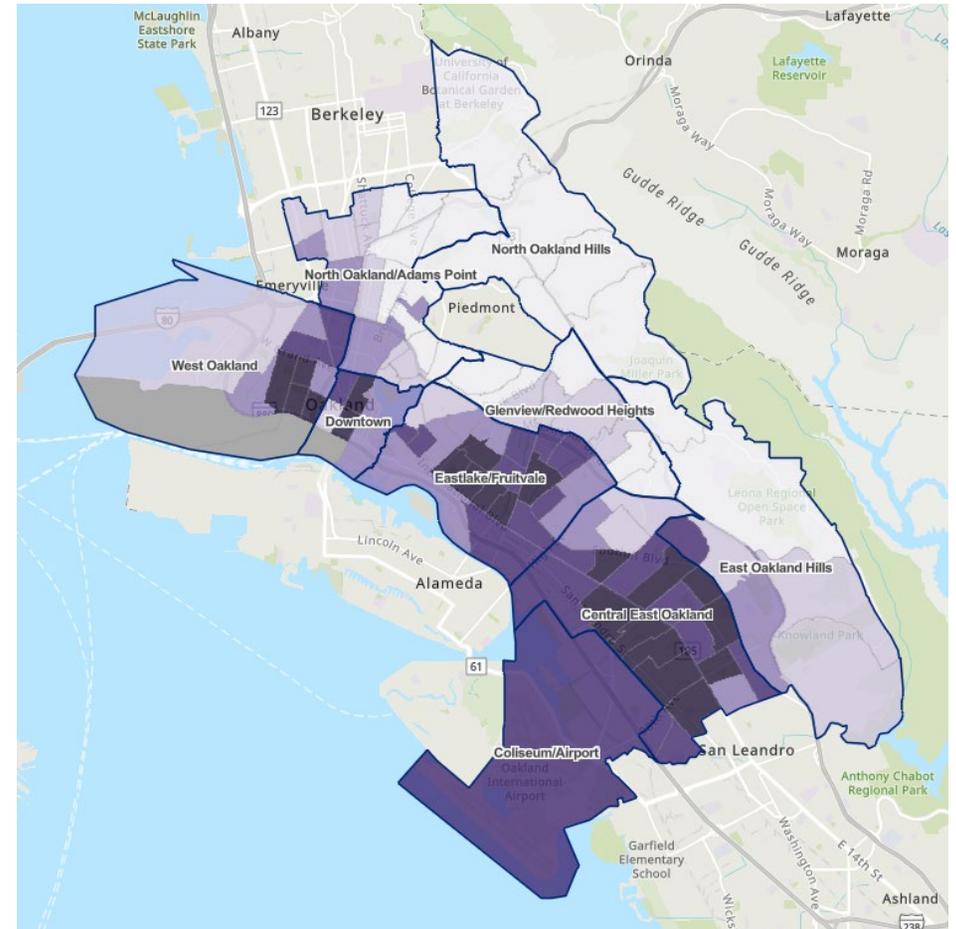
[7] City of Oakland. (n.d.). OakDOT Geographic Equity Toolbox. Department of Transportation. https://experience.arcgis.com/experience/57b194ffec8c4a7f949ec17682b819a1/

Equity Indicators:

The 2018 Oakland Equity Indicators report "develops a baseline quantitative framework that can be used by city staff and community members alike to better understand the impacts of race, measure inequities, and track changes in the disparities for different groups over time," and is meant "to guide and inform policies that address these disparities" (p. 8). The report identifies six overarching themes each with four topics assessing the state of equity in Oakland. Each topic covers three indicators used to measure equity in each theme and topic. Indicators are scored on a scale from 1 to 100 (1 being least equitable and 100 being most equitable). The City's overall score for all indicators in 2018 was 33.5.

Table 2 (below) identifies the eleven indicators addressed by the Plan, related research and community response from the robust community engagement process conducted for the Plan (see section 3 for more details), and the corresponding goals, strategies, and action items in the Plan that address the indicators.

Table 2. Equity Indicators Addressed in the Plan

Equity Indicator	Community Engagement & Research Findings	Urban Forest Plan

Theme 1: Economy
  Topic 2: Employment
    Indicators (scores):
    - Disconnected Youth
     (35)
    - Labor Force
     Participation (72)
	92% of survey respondents agree that the city should support creating job opportunities for residents related to planting and maintaining trees.	People Goal 3: Empower community members to be urban forestry leaders.
		  Strategy 1: Promote urban forestry education.
		    Action 1: Develop a comprehensive community tree maintenance and care training program that includes certification upon completion, to equip community members with the necessary skills and knowledge to effectively care for trees. In creating and implementing this program, pursue partnerships with OUSD high schools, community colleges, and community groups serving frontline communities, including BIPOC and immigrant communities.
		    Action 2: Collaborate with existing community groups and organizations (prioritizing those in frontline communities) to integrate urban forestry trainings, workshops, or school functions tailored to their specific needs and interests.

Equity Indicator	Community Engagement & Research Findings	Urban Forest Plan

Topic 4: Job Quality
    Indicator (score):
    - Workforce
      Development Programs
      (72)
		Action 3: Establish partnerships with educational institutions such as Merritt College and the International Society of Arboriculture (ISA) to connect community members to additional educational opportunities and resources in the field of urban forestry.
		
		Strategy 2: Provide opportunities for community participation in the urban forest and pathways for green jobs.
		    Action 2. Identify and support green job career pathways in the urban forestry sector, offering employment opportunities for community members interested in pursuing tree care and maintenance careers. Establish partnerships with educational institutions such as Merritt College and the ISA to connect community members to additional educational opportunities and resources in urban forestry.
		    Action 3. Collaborate with partners to develop a work program for individuals who were formerly incarcerated or experiencing homelessness in performing specific tree care and maintenance tasks in city parks.

Theme 3: Public Health
    Topic 2: Child Health
      Indicators (scores):
      - Childhood Asthma
      Emergency Department
      Visits (1)
      - Physical Fitness (63)
	Scientific research shows that trees reduce air pollution and 97% of survey respondents said this is one reason why they like trees. A study in New York City found that children living in areas with more trees had a	People Goal 2: Strengthen community connections to the urban forest.
		    Strategy 1: Optimize outdoor activities and exposure to Oakland's urban forest.
		      Action 1. Work with community partners to optimize outdoor activities and exposure to Oakland's urban forest. Support and, where feasible, organize field trips to parks and urban forest areas for schools, community organizations, and residents, providing transportation

Equity Indicator	Community Engagement & Research Findings	Urban Forest Plan
	lower prevalence of early childhood asthma than those living in areas with fewer trees.[8] Research also shows that living near trees is associated with more active lifestyles.[9] People are three times more likely to be physically active when they live in areas with high levels of trees and vegetation.[10]	options to encourage participation. Collaborate with Oakland Park & Recreation & Youth Development (OPYRD) and other partners to develop inclusive tree-related programming and recreation activities, such as guided nature walks, tree identification workshops, and outdoor fitness classes.
Topic 3: Mortality Indicator (score): - Life Expectancy (77)	A study on links between trees and increased life expectancies shows that a person's proximity to trees and other plants reduces non-genetic factors that affect human aging, potentially	Program Goal 2: Expand and enhance urban tree canopy. Strategy 1: Increase tree planting in public areas. Action 1. Allocate additional resources, staff, and capacity to facilitate the panting of over 3,000 street trees annually, aiming for 80% street tree site stocking within seven years; prioritize this work in frontline communities based on pollution levels and CalEnviroScreen data.

[8] Lovasi, G. S., Quinn, J. W., Neckerman, K. M., Perzanowski, M. S., & Rundle, A. (2008, July). Children living in areas with more street trees have lower prevalence of asthma. Journal of epidemiology and community health. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3415223/

[9] Nuccitelli, D. (2023, March 10). The little-known physical and mental health benefits of urban trees " Yale climate connections. Yale Climate Connections. https://yaleclimateconnections.org/2023/02/the-little-known-physical-and-mental-health-benefits-of-urban-trees/#:~:text=Urban%20forests%20promote%20active%20lifestyles,in%20proximity%20to%20urban%20forests.

[10] Ellaway, A., Macintyre, S. & Bonnefoy, X. (2005). Graffiti, greenery, and obesity in adults: Secondary analysis of European cross-sectional survey. British Medical Journal, 331, 611-2.

Equity Indicator	Community Engagement & Research Findings	Urban Forest Plan
	increasing longevity. This study factored race and ethnicity, finding that the positive effects of trees on life expectancy are more pronounced in BIPOC community members living in frontline communities.[11]	*By planting more trees in frontline communities, the City can help improve the life expectancy of people living in these communities.*

Topic 4: Physical and Mental Health
    Indicator (score):
    - Severe Mental Illness Emergency Department Visits (7)
	Trees are shown to improve mental health. In one study, the number of residents who reported poor mental health decreased by 63% within 18 months after vacant lots near their homes were planted with grass and trees.[12]
	
	94% of survey respondents said that they like trees because of the mental, spiritual, and
		People Goal 2: Strengthen community connections to the urban forest.
		    Strategy 3. Recognize and amplify the spiritual and mental health benefits of trees.
		        Action 1. Promote nature walks, hiking, and "forest bathing" as healthy activities that enhance well-being and foster a deeper connection to the urban forest. Collaborate with local wellness organizations and mental health professionals to develop programs that utilize the therapeutic benefits of spending time in nature. Focus efforts in frontline communities, especially where access to mental and physical health services are limited. Remove access barriers and integrate lessons from Indigenous and other frontline communities.

[11] Kim, K., Joyce, B. T., Nannini, D. R., Zheng, Y., Gordon-Larsen, P., Shikany, J. M., ... & Hou, L. (2023). Inequalities in urban greenness and epigenetic aging: Different associations by race and neighborhood socioeconomic status. Science Advances, 9(26). https://doi.org/10.1126/sciadv.adf8140

[12] Greening vacant lots reduces feelings of depression in city dwellers, Penn Study finds. Penn Medicine. (n.d.). https://www.pennmedicine.org/news/news-releases/2018/july/greening-vacant-lots-reduces-feelings-of-depression-in-city-dwellers-penn-study-finds

Equity Indicator	Community Engagement & Research Findings	Urban Forest Plan
	cultural benefits they provide.	Action 2. Support land rematriation efforts of Indigenous peoples to honor their connection with the land and trees.

Theme 4: Housing
    Topic 3: Essential Services
        Indicator (score):
          - Energy Cost Burden
           (38)
	Strategically planting trees around a home can reduce energy costs and improve quality of life by reducing temperatures and the need for fossil fuels to power cooling systems. The shade from trees has also been shown to prevent 1,200 heat-related deaths each year in the U.S.[13]
	97% of survey respondents value trees for their ability to provide shade.
		Policy Goal 3: Plan for Climate Change.
		    Strategy 1: Prioritize trees as climate change solutions.
		        Action 1. Continue to highlight and maximize the role of Oakland's urban forest in Oakland's climate policies and goals, emphasizing the role of trees in mitigating and adapting to climate change. Identify and develop frameworks and metrics to incorporate urban canopy and proactive tree maintenance into the city's greenhouse gas (GHG) accounting to provide a clearer assessment of progress toward Oakland's 2045 carbon-neutral target.
		
		The Plan's aim to incorporate trees as a climate solution will also reduce energy costs.

Theme 6: Neighborhood and Civic Life
    Topic 1: Built Environment
        Indicator (score):
          - Pedestrian Safety (1)
	Research shows that the existence of street trees helps to slow traffic, reduce crime, and increase business	Program Goal 1: Proactively manage the urban forest.
		    Strategy 1: Implement a comprehensive tree maintenance program for all public trees.
		        Action 1. Develop and execute a citywide tree maintenance and tree planting program based on industry standards, best management practices, and environmental justice principles.
		        Action 2. Establish regular grid pruning cycles for street trees, trees encroaching onto roads from private property

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[13] McDonald, R.I., Kroeger, T., Zhang, P. & Hamel, P. (2020). The value of U.S. urban tree cover for reducing heat-related health impacts and electricity consumption. Ecosystems, 23, 137–150. https://doi.org/10.1007/s10021-019-00395-5

Equity Indicator	Community Engagement & Research Findings	Urban Forest Plan
	revenue.[14] [15] [16] [17] [18] [19] Businesses on streets with healthy trees do better because the areas are more inviting for pedestrians. 84% of survey respondents appreciate trees for their ability to reduce traffic noise and 47% for their ability to reduce crime. While these benefits extend beyond this indicator, they do play a role in pedestrian safety.	or undeveloped rights-of-way, and all park trees. Serve frontline communities first in each cycle, based on pollution levels, average tree health based on inventory data, and CalEnviroScreen. Strategy 2: Mitigate tree-related hazards. 　Action 1. Remove dead trees and hazardous trees/branches to minimize risks to public safety. Prioritize the backlog of tree removals identified in the inventory, beginning with frontline communities. 　Action 2. Conduct pruning activities to clear trees from streetlamps, traffic signals, and improve sightlines. Serve frontline communities first. 　Action 4. Repair tree-related hazards in the public right-of-way, including tree-damaged sidewalks, streets, curbs, and gutters. Strategy 3. Enhance the visual appeal and eliminate unsightly elements in the urban forest. 　Action 1. Prioritize the removal of 2,000+ known stumps to improve the aesthetic quality of public spaces. Serve

[14] Swift, P., Painter, D., & Goldstein, M. (1997). Residential street typology and injury accident frequency. Swift and Associates.

[15] Ewing, R., & Dumbaugh, E. (2009). The built environment and traffic safety: a review of empirical evidence. Journal of Planning Literature, 23(4), 347-367.

[16] Gilstad-Hayden, K., Wallace, L.R., Carroll-Scott, A., Meyer, S. R., Barbo, S., Murphy-Dunning, C., & Ickovics, J. R. (2015). Research note: Greater tree canopy cover is associated with lower rates of both violent and property crime in New Haven, CT. Landscape and Urban Planning, 143, 248–253. https://doi.org/10.1016/j.landurbplan.2015.08.005. Source 2: Troy, A., J.M. Grove & J.

[17] O'Neil-Dunn, J. (2012). The relationship between tree canopy and crime rates across an urban–rural gradient in the greater Baltimore region. Landscape and Urban Planning, 106, 262–270.

[18] Wolf, K.L. (2005). Business district streetscapes, trees, and consumer response. Journal of Forestry, 103(8), 396-400. https://nacto.org/docs/usdg/city_trees_retail_wolf.pdf

[19] Hughes, N. (2013, May 29). Trees mean business. California Urban Forests Council. https://investfromthegroundup.org/trees-mean-business/.

Equity Indicator	Community Engagement & Research Findings	Urban Forest Plan
		frontline communities first, based on pollution levels and CalEnviroScreen. Action 2. Replant trees in appropriate locations to replace removed stumps citywide, starting in frontline communities. Serve frontline communities first, based on pollution levels and CalEnviroScreen. Action 3. Implement beautification initiatives in collaboration with community groups and artists to create visually appealing tree installations and public art. In all projects, embrace, support, and celebrate Oakland's diverse cultures. Wherever possible, hire artists and cultural strategists from Oakland's frontline communities. Strategy 4. Manage and reduce tree conflicts with surrounding infrastructure. Action 1. Collaborate with OakDOT to implement strategies for addressing tree conflicts with sidewalks based on ISA standards in compliance with Americans with Disabilities Act (ADA) compliance. Action 2. Update the street tree species list to ensure better compatibility between mature tree size and available planting space. Action 3. Utilize alternative materials, such as permeable pavers and tree surrounds, to improve tree and pedestrian compatibility. Action 6. Enforce Oakland's street tree planting standards to minimize future conflicts with infrastructure and utilities. Policy Goal 2: Plan for trees and tree canopy. Strategy 2: Manage all trees as green infrastructure.

Equity Indicator	Community Engagement & Research Findings	Urban Forest Plan

Topic 3: Environmental Health
   Indicators (scores):
   - Park Quality (57)
   - Pollution Burden (55)
	Parks are an important element of urban life because they provide access to green space, physical activity, communal gathering, and climate benefits (including reduced urban heat island effect, cleaner air, and stormwater collection). Parks were assessed by Council District and found that District 1 has the highest score with a C+ and Lakeside Park (scored separately) received a B.
	
	All trees provide benefits to birds and wildlife, but trees and other
		Action 1. Implement routine pruning for all trees in the developed right of way based on best management practices and funding availability.
		
		A healthy, well-maintained urban forest is necessary for trees to contribute to pedestrian safety by providing traffic safety, reducing crime, and making streets more inviting for pedestrians. Unmaintained and neglected trees can have the opposite effects on safety and create a negative pedestrian experience.
		
		People Goal 2: Strengthen community connections to the urban forest.
		   Strategy 4: Co-design streetscapes and parks to maximize the community's connection with trees and nature.
		      Action 3. Prioritize the use of native plants and pollinator gardens in the urban forest where appropriate, enhancing biodiversity and attracting wildlife, and maximizing green infrastructure for stormwater management, nature access, and pollution mitigation. Prioritize implementation in frontline communities.
		      Action 4. Repurpose downed trees as logs in siting circles and gathering places in parks, creating natural seating areas that blend with the surrounding environment.
		Program Goal 2: Expand and enhance urban tree canopy.
		   Strategy 1: Increase tree planting in public areas.
		      Action 1. Allocate additional resources, staff, and capacity to facilitate the planting of over 3,000 street trees annually, aiming for 80% street tree site stocking within seven years.

| Equity Indicator	Community Engagement & Research Findings	Urban Forest Plan
	vegetation in park settings can create large, localized areas of habitat that can support a greater number and variety of birds and wildlife. 98% of survey respondents identified wildlife habitat as one of the greatest benefits of having trees in their communities, so this is an important factor that affects park quality for community members. Trees also alleviate pollution burdens. They reduce GHGs that can trap and retain heat in the atmosphere and cause the city to get warmer. Oakland's urban forest sequesters 13,280 tons of carbon each year. 96% of survey respondents value trees for their ability to	Prioritize this work in frontline communities, based on pollution levels and CalEnviroScreen. Action 2. Work with OakDOT to provide appropriate street tree species, planting strip width, and maintenance recommendations on all construction projects. Action 3. Leverage private development projects to expand the urban forest in the public right of way by updating the Oakland Municipal Code to require street trees for all private development projects. Strategy 2: Integrate tree planting into stormwater management systems. Action 1. Collaborate with the Watershed & Stormwater Division staff working on the Storm Drainage Master Plan on modeling to identify where tree planting needs to be targeted to reduce localized flooding. Strategy 3: Promote and support tree planting on private property. Action 1. Utilize tree canopy and equity data to identify priority neighborhoods for tree planting on private property, using pollution burden and CalEnviroScreen as primary factors. Action 2. Assist community partners in procuring and distributing climate-appropriate trees to private property owners, encouraging them to plant trees in their yards to expand the urban tree canopy. Provide species guidance based on site suitability and the communities' needs and values. Policy Goal 2: Plan for trees and tree canopy. Strategy 2: Manage all trees as green infrastructure.

Equity Indicator	Community Engagement & Research Findings	Urban Forest Plan

	capture and sequester carbon.
	
	Other climate-related benefits of trees include improved water quality and reduced flooding. Trees help prevent flooding by intercepting rainfall in their canopies, which reduces stormwater runoff and pollutants by 20-60%.
		Action 2. Integrate trees strategically into city plans and designs to maximize their ecosystem benefits, such as providing shade, capturing stormwater, and improving air quality.
		Policy Goal 3: Plan for climate change.
		   Strategy 1: Prioritize trees as a climate change solution.
		      Action 1. Continue to highlight and maximize the role of Oakland's urban forest in Oakland's climate policies and goals, emphasizing the role of trees in mitigating and adapting to climate change. Identify and develop frameworks and metrics to incorporate urban canopy and proactive tree maintenance into the city's GHG accounting to provide a clearer assessment of progress toward Oakland's 2045 carbon-neutral target.
		   Strategy 2: Enhance urban forest resilience to climate change.
		      Action 1. Regularly update the street tree species list based on climate modeling and drought tolerance research to ensure the selection of suitable tree species.
		      Action 2. Monitor and assess regional and local trends in tree stress and mortality caused by climate change, taking appropriate actions to mitigate these effects.
		   Strategy 3: Implement an ecological approach to urban forestry.
		      Action 1. Follow the guidelines of the Alameda County Water Efficient Landscape Ordinance and incorporate principles from the California ReScape program into urban forestry design and maintenance practices to reduce resource consumption and maximize environmental benefits.

Equity Indicator	Community Engagement & Research Findings	Urban Forest Plan
		Action 2. Promote and support urban forestry educational opportunities led by partners to increase awareness and knowledge. Focus outreach, awareness, and opportunities in Oakland's frontline communities. Work with educational, vocational, and other partners to explore opportunities for integrating educational programs with green jobs training. Tailor programs to benefit frontline communities. Action 3. Encourage and facilitate the recycling of urban forestry byproducts, such as dead trees, brush, and leaves, into mulch or other useful resources.

The Urban Forest Plan acknowledges inequities and identifies concrete ways to grow an equitable urban forest for Oakland over the next fifty years.

"Trees are essential to life on this planet—
they are the earth's lungs—they breathe for us."
-Oakland Poet Laureate Dr. Ayodele Nzinga

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Frontside of an outreach postcard to encourage engagement with the Draft Urban Forest Plan.

Stakeholders

Who are our stakeholders?

The Urban Forest Plan is a citywide plan for all of Oakland, but it prioritizes bringing services to Oakland's frontline communities first to meet the overarching goal of growing an equitable urban forest. So, while all Oaklanders are stakeholders in the Urban Forest Plan, those most affected by tree inequity are particularly affected by the Plan in that, if funded, more tree planting and tree care will occur in their communities.

These frontline communities include those along the I-880 corridor and below I-580. Map 2. from bestneighborhood.org (see page 8) identifies the racial/ethnic majority in different census tracts across Oakland, based on U.S. Census data. Comparing this map with Map 1. above shows that the census tracts in Oakland with the fewest trees are primarily BIPOC communities. Starting in East Oakland and moving northwest along the I-880 corridor, the affected communities are majority Hispanic and Black, then Asian east of Lake Merritt and into downtown, then becoming primarily Black in much of West Oakland.

Engaging our stakeholders:

Stakeholder engagement for the Urban Forest Plan development process occurred in two stages: 1) Round 1: initial engagement to understand the needs and values of Oakland's many communities through a survey, and 2) Round 2: secondary engagement occurred with the public announcement of the draft Plan for public review and comment. The results of the survey (Round 1) were used to design the Plan's priorities. The public review and comment period (Round 2) gave the community the option to verify that the Plan accurately represents their needs and desires related to Oakland's urban forest.

Round 1: Initial engagement - survey:

A fifty-question survey designed to evaluate community values, understanding, and appreciation of trees was distributed widely with paper copies available at events and an online version available through a dedicated project website. The website also provided project and urban forestry background information, including links to tree canopy and street and park tree resource assessments, pre-recorded presentations, and interactive tree canopy maps. The paper survey was available in English, Spanish, and Traditional Chinese. The online version had the Google Translate option on the website, allowing a user to translate the survey into any of the many languages Google offers. The City advertised the survey on the Urban Forest Plan website, newsletters, email lists, social media, outreach to community groups, and through a contractual relationship with four nonprofits. The survey received a boost in responses after an article published by *The Oaklandside*.[20]

The survey was open from April 2022 to August 2022 and collected 2,484 responses.

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[20] Rasilla, A. (2022, August 11). Want more trees in your neighborhood? take this city survey. The Oaklandside. https://oaklandside.org/2022/07/20/city-of-oakland-tree-survey/

Additional necessary steps are taken to reach stakeholders in frontline communities:

Due to "decades of neglect and disinvestment, along with economic and racial inequality [(such as redlining), disadvantaged communities have been] robbed of healthy civic engagement supports."[21] Typical community engagement processes are designed for efficiency and not focused on empowering the community, and the outcomes of typical public engagement practices are skewed in favor of those who already have access to policy and decision-makers, which tend to be the wealthiest 20% of Americans.[22] This inequity in outcomes leads "to inequitable investments" that further solidify "lack of trust, polarization, and [. . .] retrenchment" of disadvantaged communities, which contributes to a compounding lack of trust in civic institutions.[23]

To effectively engage Oakland's frontline communities and avoid further alienation, the engagement process for the Plan followed the City of Oakland and the Department of Race & Equity best practices by engaging with community groups working in and/or representing frontline communities to reach frontline community members where they are and on their terms. The City hired and paid the following four community groups to incorporate education about the Plan and to distribute surveys into their existing work and programming in frontline communities:

- California Interfaith Power & Light
- Common Vision
- Forest & Tree
- Oakland Parks & Recreation Foundation, with Trees for Oakland

Partner-led engagement activities emphasized reaching frontline community members. They occurred organically at in-person and virtual community events and meetings, as well as through email, social media outlets, and newsletters. In total, these four partners hosted 16 in-person and virtual events to communicate the survey and collect responses.

Results of Round 1 outreach (survey):

Oakland's population is 430,553, so the 2,484 survey responses represent 0.58% of the population. The number of responses, while less than 1% of the total population, was significantly higher than expected. The City's consultant, Davey Resource Group (DRG), said this was the highest response rate they have seen for any similar-sized city where they have worked. DRG develops urban forest plans for cities across the United States and Canada.

The diversity of the responders is as important as the number of responses received to verify that the survey results accurately reflect Oakland's racial and ethnic diversity. The City made considerable effort to reach stakeholders in frontline communities. When reviewing the 2,484 responses, two flaws in the design of the online survey were discovered: 1) not all questions, including demographic questions, were required to be answered before moving on in the

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[21] Holley, K. (2016). *The principles for equitable and inclusive civic engagement: A guide to transformative change.* The Ohio State University. p.14

[22] Holley, K. p. 15

[23] Holley, K. p. 16

survey or submitting it, and 2) related questions were grouped together but the online format of the survey made it difficult to know if all questions were answered before moving to the next section. Many questions went unanswered, including important demographic questions. Only 1,160 respondents answered the question about race and ethnicity (47%) and 1,606 identified in which Council District they live (65%). In addition to the potential confusion around the formatting of the question blocks, responders may have neglected some questions due to fatigue. The survey had fifty questions and was estimated to take twenty minutes of a person's time to complete.

Based on the incomplete data, most survey respondents who answered the demographic questions were from Council Districts 1 and 3 (20% each) and identified as white or Caucasian (728, or 62.8%). The fewest number of respondents lived in Council Districts 7, 6, and 5 respectively. See Figures 1 and 2 for the breakdown of race/ethnicity and Council District. This is not an accurate representation because over 50% of respondents did not provide their demographic information and some of these people may be BIPOC community members from frontline communities.

There are several possible reasons for the high number of white respondents despite the concerted efforts to reach BIPOC community members. The survey period was two years after the beginning of the COVID-19 pandemic, but social distancing and reduced in-person contact were still expected behaviors. This limited the City's in-person engagement and the primary method of distributing the survey was web-based. According to Jang & Vorderstrasse[24] (2019), there are significant differences in web-based survey participation among different groups related to race or ethnicity and education level despite more equitable internet access. In their study, White participants were 1.7 times more likely to agree to respond to a survey than Black participants. Asian participants were 2 times more likely to agree to participate than Black participants. White participants were 3.2 times more likely to complete the entire survey than Black participants. Socioeconomic measures found that participants with a high school diploma were less likely to complete the survey partially or fully. Still, there was no significant relationship between family income and completion rates. These findings support the results of the urban forest plan survey in that 88% (1003) of people who completed the survey and provided demographic information (1135, or 45% of all survey respondents) were college graduates with a four-year degree or higher.

Paper surveys in English, Spanish, and Traditional Chinese were available and provided upon request. The four community partners used paper surveys in their outreach due to the nature of their events, but fewer in-person events occurred during this post-pandemic period. The survey asked respondents to identify how they learned about the survey and 1119 (45%) answered this question. Of the 1119 respondents, 220 (19.7%) identified one of the four community groups in answering this question. At least 220 additional people because of these

[24]Jang, M., & Vorderstrasse, A. (2019, April 10). Socioeconomic status and racial or ethnic differences in participation: Web-based survey. JMIR research protocols. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6479282/

partnerships. This number is very conservative since 55% of the respondents did not answer this question.

Figure 1: Race/Ethnicity of respondents who provided demographic data.
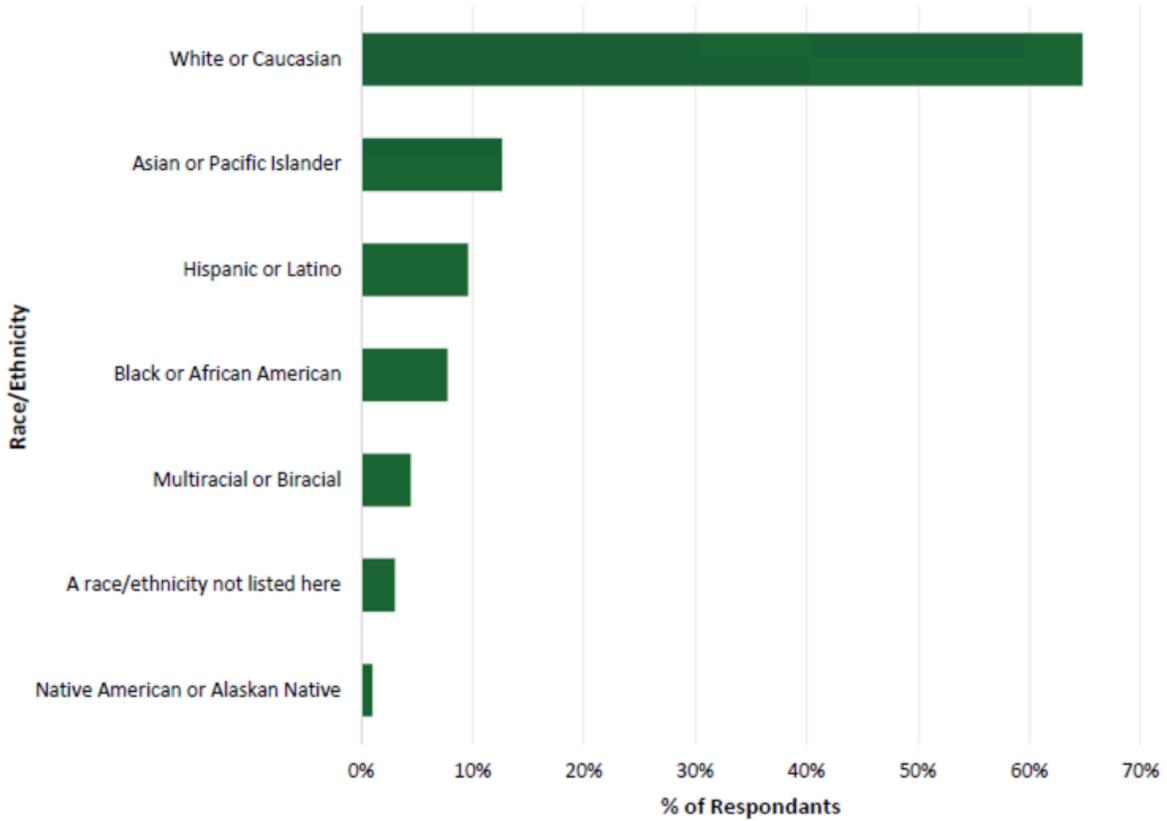
Figure 2: Location of survey respondents by Council District
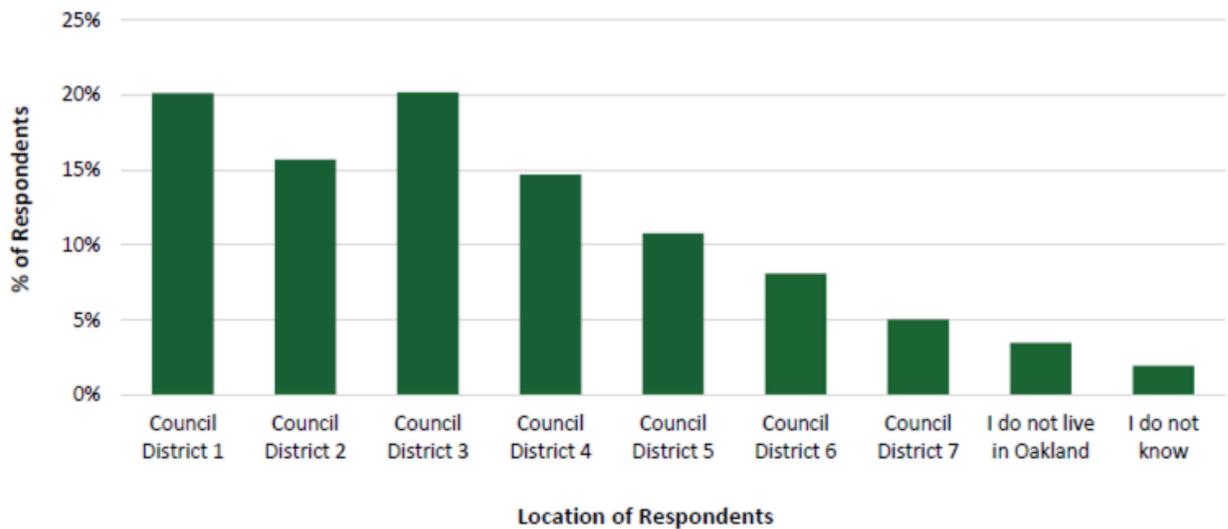
Round 2: Subsequent outreach:

After the initial outreach that gathered insight into communities' values, understanding, and requirements related to trees, a subsequent round of outreach was conducted to 1) explain how their data both informed and was incorporated into the draft Urban Forest Plan, and 2) provide an opportunity for further comments and questions to incorporate into the final draft of the Plan.

In addition to the public review of the Plan, grant funding was used to hire Dr. Ayodele Nzinga, Oakland's Poet Laureate, to be a cultural strategist to further the reach of the Plan. Dr. Nzinga has an existing relationship with trees and an interest in equity and the goals of the Plan. Her role in this process was separate from but modeled after the Cultural Strategist-in-Government Program developed in collaboration between the City of Oakland's Cultural Affairs Division and the nonprofit Oakland Fund for Public Innovation.

Dr. Nzinga became the spokesperson for the Plan at events and provided direct outreach through her community connections throughout Oakland. This included the creation of original works of art, such as the poem "i have known trees," the foreword for the Urban Forest Plan, a bookmark, a short story, and social media posts. She spoke at events throughout the city about trees, including reciting her poem, to further the significance of trees in peoples' minds.

> *Cultural Strategist-in-Government Program*
>
> Through a grant from the Andrew W. Mellon Foundation to promote equity, the Oakland Fund for Public Innovation with the Cultural Affairs Division of the City of Oakland developed the Cultural Strategist-in-Government Program to place Oakland-based artists and cultural workers as practitioners in city departments to infuse city problem-solving with new perspectives and creative thinking from communities historically under-represented in the city's policy-making staff.

Public Information Sessions

During the public comment period, the City hosted two public information sessions. Outreach and the in-person location focused on Districts 6 and 7 since the survey outreach did not reach as many community members in these districts as expected. The first public information session occurred online over Zoom on November 15, 2023, from 12-1 pm. This included an opening introduction and recital of the poem "i have known trees" by Dr. Ayodele Nzinga, a presentation outlining the Plan, instructions on how to read and comment on the Plan, and a question-and-answer period at the end. The presentation included live translation in Spanish and Cantonese. The presentation slides were also translated into those same languages and posted online. Fifty-three people registered for this information session and 57 people attended, not including City staff or translation service providers. A demographic survey was conducted during the event and 28 of the attendees responded (51%). See Table 4 for a breakdown of race/ethnicity and District representation of approximately only half of the attendees.

Table 4: Demographic Breakdown of the Virtual Information Session

African American/Black	18%		District 1	4%
Asian	7%		District 2	32%
Hawaiian/Pacific Islander	4%		District 3	14%
Latinx	7%		District 4	18%
Multi-racial	7%		District 5	4%
White	46%		District 6	7%
No response	11%		District 7	14%
			Outside Oakland	7%

The second public information session occurred in person at the 81st Avenue Branch Library on the evening of November 29, 2023, from 6 to 8 pm, with dinner and childcare provided. This information session was structured similarly to the virtual session, including the introduction and poem recital by Dr. Ayodele Nzinga, but included more interaction with the audience by allowing questions to occur throughout the presentation. Live translation in Spanish and Cantonese was available for attendees. Forty-three people registered for this information session and approximately 35 attended. Demographic survey cards were distributed but fewer than five attendees filled them out, resulting in inconclusive data.

The location for the in-person information session was specifically chosen for its location in District 7 and proximity to District 6 to make it more convenient for community members in these districts to attend since members of these districts were the least represented in the previous public engagement process according to the incomplete demographic information available. Meeting outreach for both information sessions focused on frontline communities, with additional outreach to community-based organizations in Districts 6 and 7.

Community Response to the Plan

The City used the Konveio platform to distribute the public draft and collect comments. This is a web-based application that allows people to read the draft online and comment directly on it. Comments are public and other people can both read and respond to each other's comments. This program has been used for other similar projects in Oakland, including the Equitable Climate Action Plan (ECAP). The Plan received 5,438 views and 862 questions and comments that ranged from desires to see more native tree species in Oakland to proofreading errors.

In addition to sending comments through Konveio, some members of the public submitted written comments over email, letters of support, as well as a white paper from the group "Trees for Oakland" outlining what tree-planting organizations in Oakland would like to have included in the Plan. These emails, letters, and the white paper resulted in an additional 617 comments, for a total of 1,479 comments from online and traditional pathways.

DRG collected and sorted all 1,479 comments and questions by topic and updated the draft UFP as needed to fix errors, clarify information that was not clear in the previous draft, and

address requests from the public as relevant to the Plan. Categories of significant comments that were relevant to the implementation of the Plan but not to the Plan itself were recorded for the City to reference when implementation begins.

Racial Composition of Subsequent Engagement:

A total of 119 people of the 163 total commenters (73%) responded to the demographic survey (see Table 3).

Table 3: Demographic Information for draft Plan commenters on the Konveio platform

African American/Black	1%		District 1	19.4%
Asian	7%		District 2	17.9%
Hawaiian/Pacific Islander	1%		District 3	4.5%
Latinx	3%		District 4	31.3%
Multi-racial	3%		District 5	9%
White	76%		District 6	10.4%
No response	11%		District 7	7.5%

Over three-quarters of commenters who reported their demographic information identified as white (90 people). This is significantly higher than expected and disappointing considering the efforts made towards engaging with frontline community members. Some potential reasons for this happening are:

1) Platform: The online commenting platform may have been a barrier for some people to access and comment on the Plan. The Plan was tested for viewing on a mobile device prior to releasing it live to the public and it worked, but at least one commenter stated that they could not access the Plan on their phone. Due to the cost and desire to reduce waste, only ten copies of the Plan were printed and available upon request, at meetings and the in-person public information session.

2) Lack of a standardized Citywide Outreach Program: The City and its partner organizations did their best with the resources available and presented at meetings, posted on social media, tabled at events, hosted two information sessions, met with Councilmembers, and sent out many email communications before and during the six-week public comment period. These efforts may have been too few or at inconvenient times to reach a greater audience. The City has an excellent working group to share ideas and discuss engagement, but not a centralized or standardized outreach program that could streamline engagement efforts among all departments and increase effectiveness.

3) Lack of interest: Oakland's urban forest might not be a topic of concern for many people, making it difficult to engage them in responding to the Plan.

Equity Gaps

The urban forest and city services are inequitably spread across Oakland due to both historical racist policies and current policies that, while not racially motivated, have an adverse effect on equity.

Historic policies:

Oakland and its distribution of trees has been negatively affected by historical government policies over the past century.

- **Redlining** was a federal policy that denied financial services (such as mortgages) in specific neighborhoods based on their racial or ethnic composition (see Map 3 in Section III above). This practice disproportionately affected African Americans as well as other non-white racial/ethnic groups and led to the segregation of neighborhoods, racially focused slums, and denied credit and other financial services to people living in redlined neighborhoods. Redlining was banned in 1968, but its legacy endures with formerly redlined neighborhoods experiencing higher levels of poverty, lower levels of homeownership, and reduced tree canopy.
- **Urban Renewal** is another federal policy meant to revitalize and redevelop urban areas that were perceived as being in decline or decay. This and similar projects disproportionately affected African Americans. In East Oakland, the development of the Oakland-Alameda County Coliseum leveled an entire predominantly African American and working-class neighborhood, leading to displacement and a loss of community. The Acorn Redevelopment Project Area in West Oakland was similar. Eminent domain was used to level several blocks of homes to build three high-rise public housing facilities. Residents were compensated for their homes that were destroyed, but the compensation was not enough for them to buy another home elsewhere, further restricting African American families from building generational wealth. Additionally, new freeways and the Bay Area Rapid Transit system leveled homes, separated neighborhoods, and contributed to greater amounts of air and noise pollution, primarily in frontline communities. These projects permanently altered the geography, lives, and livelihoods of the primarily BIPOC people who lived there.
- **The truck prohibition on Interstate 580** between Grand Avenue and the San Leandro border requires that all trucks over 4.5 tons use Interstate 880 to travel out of the Port of Oakland. This increases the amount of particulate matter in neighborhoods along the I-880 corridor, further exacerbating the pollution burden these neighborhoods endure. See Map 5: CalEnviroScreen to see the intensity of the pollution burden in neighborhoods on either side of I-880. The communities are all coded orange to red, meaning they have high pollution burdens.

See Chapter 2 in the Plan for a greater explanation of these policies and how they affected Oakland's tree canopy.

Map 5: CalEnviroScreen 4.0[25]
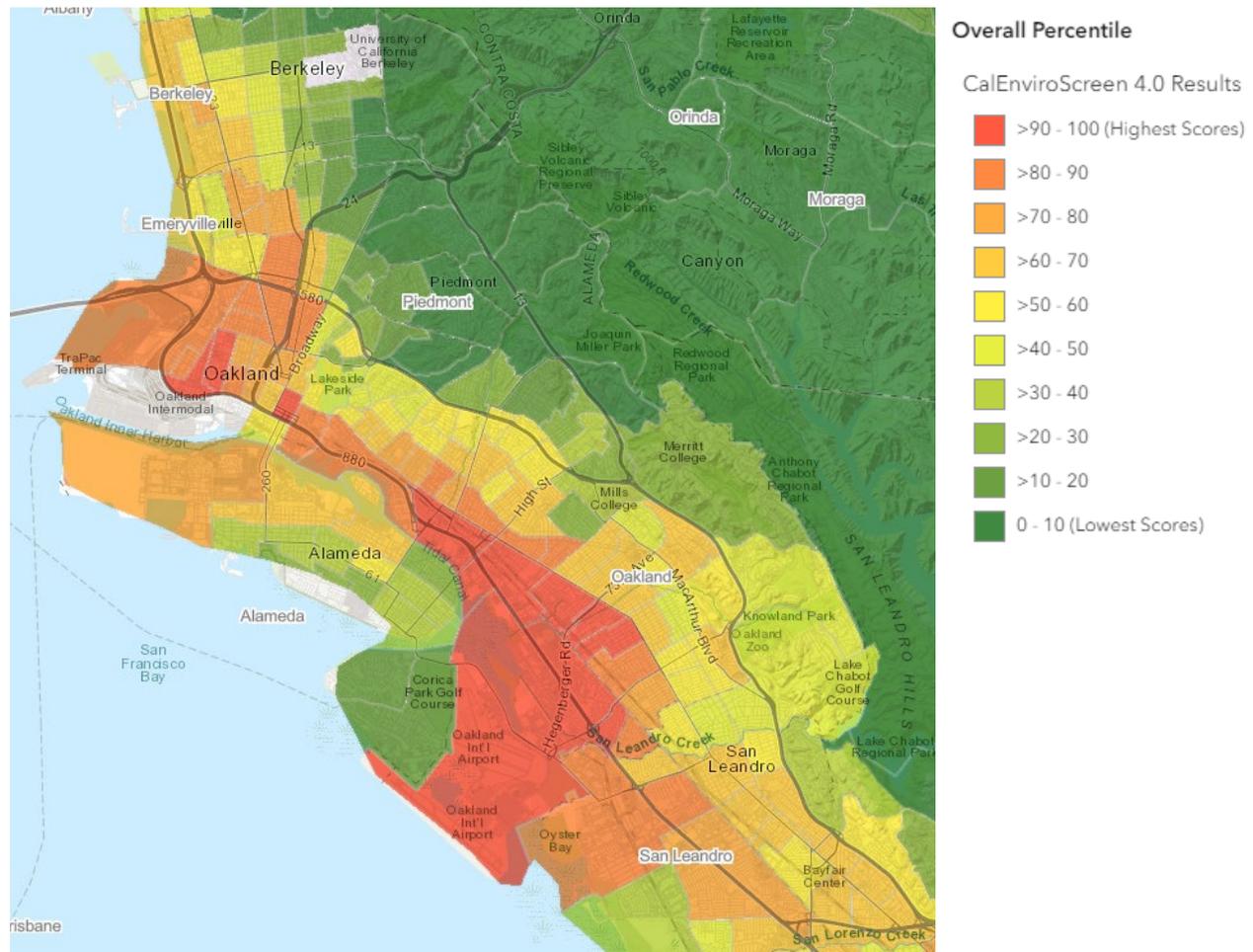
Current policies:

More recent policies continue the inequitable distribution of trees and services to frontline communities.

Insufficient city service levels exacerbate tree inequities. Due to the budget shortfalls related to the Great Recession, the City cut funding and staff positions in Oakland Public Works Tree Services Division (Division) by half in FY2008-09 and the Division had to reprioritize its work. Emergency tree response to remove failed trees and limbs or those threatening to fail and block the public right of way remained in place. All tree planting and tree maintenance activities ceased due to lack of staff and funding. These services have not been restored. Fifteen or more years of deferred maintenance have resulted in more and more tree and tree limb failures. Not only could many of these failures be prevented, but the loss of trees has resulted in reduced tree

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[25] California Office of Environmental Health Hazard Assessment. (n.d.). CalEnviroScreen 4.0. https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-40

benefits for communities throughout Oakland. This is the wrong way to effectively manage an urban forest.

This policy change has inequitable results because people who could afford to maintain public trees on their own did and those who could not afford to do so did not. More private citizens have taken over the care and maintenance of street trees in Oakland's more affluent neighborhoods. Tree care costs can be a burden for frontline communities where average income is lower. This results in fewer maintained trees in frontline communities and greater tree loss due to failures that could have been prevented with regular maintenance. Refer to Map 1: Tree Canopy Cover in Oakland. Frontline communities already have significantly fewer trees than Oakland's affluent areas (as low as 1.3% canopy cover versus as high as 68%), so the lack of maintenance and increased tree loss further exacerbate tree canopy inequity.

"Official" and "Unofficial" tree designations are an inequitable practice that negatively impacts frontline communities. Oakland currently designates public street trees as either "official" or "unofficial." The practice was established in the 1930s to discourage the planting of large street trees by transferring the responsibility of their pruning to the adjacent property owner. However, this practice has had negative consequences including:
- Exacerbating tree inequities as some communities can afford tree maintenance while others cannot.
- Contradicting tree maintenance best management practices as some trees forego maintenance, creating public hazards.
- Creating logistical challenges in tracking the ownership of the Oakland's 55,000 street trees, many of which lack planting records.
- Hindering tree planting, maintenance, and achievement of tree canopy goals.
- Confusing the public due to lack of transparency on tree planting history and management responsibility.

Currently, any tree planted by the City is considered an "official" tree. Any tree planted by another entity is "unofficial" unless it was planted with an approved tree planting permit. The tree planting permit process was not established until 2016, so any tree not planted by the City prior to 2016 or without a permit is "unofficial" and the City will not maintain that tree.

The City stopped planting trees in 2008 when the Division's budget and staffing were cut due in half due to the budget shortfalls related to the Great Recession. Nonprofit and community groups stepped in during the City's absence to continue planting trees, often through grants from the State of California. In the 2010s, the State of California began prioritizing funding for census tracts that the state identified as "disadvantaged communities" (DACs) per the CalEnviroScreen map (see Map 5). Planting groups have planted a significant but unknown number of trees in disadvantaged, or frontline, [26] communities since the 1990s to present day.

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[26] Disadvantaged communities are the same as frontline communities. They are primarily referred to as "frontline communities" throughout this report.

Continuing the practice of designating trees as "official" or "unofficial" and restricting city resources only to "official" trees will further exacerbate canopy inequity and is unfair to frontline community residents, many of whom may not have the resources to maintain their trees on their own. It will hinder further tree investment into frontline communities.

Additionally, this arbitrary designation adds additional and unnecessary logistical challenges for routine pruning. It goes against best management practices for urban forestry and is detrimental to growing a healthy, equitable urban forest.

Relying solely on OAK311 yields inequitable service distribution and further exacerbates canopy inequity. The Division's limited capacity due to the 2008 budget cuts allows them to only perform the highest-need emergency tree work for public safety. Emergency work is received and assigned through Oakland's complaint-based system, 311. Examples from Seattle, Washington,[27] and Portland, Oregon,[28] as well as peer-reviewed research,[29] show that reliance solely on a complaint-based system will disproportionately harm communities of color and renters because members of these communities are less likely to call in complaints. Tree issues in frontline communities are less likely to be called in and at-risk trees may not be getting the attention they need, leading to damage, property loss, and possibly loss of life if they were to fail. Instituting a routine pruning program will allow the Division to identify and respond to potential tree failures before they happen.

Filling in Equity Gaps

Equity is a cornerstone of the Urban Forest Plan and is the focus of the Plan's mission. The goal of equity-focused urban and community forestry is for frontline communities to achieve environmental, economic, social, and cultural urban forest benefits that are equal to the benefits received in the highest-served areas. All neighborhoods, regardless of race, income, disability, or other characteristics deserve a robust, healthy, and thriving urban forest.

Creating an equitable and healthy urban forest means allocating the resources and opportunities needed to improve the size, quality, number, and maintenance of trees and greenspaces in neighborhoods that may be lacking tree canopy and greenspace. Equitable urban forestry involves:
- Prioritizing tree planting and pruning efforts in areas with fewer resources to address tree canopy disparities (see page 32).

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[27] Wogan, J. B. (2021, April 21). How cities are ending unintentional racial discrimination. Governing. https://www.governing.com/archive/gov-racial-equity-center-social-inclusion.html
[28] Lamb, A., & Christmann, M. (2021, November). City's reliance on complaints for property maintenance enforcement disproportionately affects diverse and gentrifying neighborhoods. Portland City Auditor. https://www.portland.gov/sites/default/files/2021/report-6-10-19-web.pdf
[29] Wichowsky, A., & Shah, P. (2022, July). Call and Response? Neighborhood Inequality and Political Voice. Marquette University. https://journals.sagepub.com/doi/abs/10.1177/0160323X211064253

Priority Planting Maps

TreeKeeper Canopy, a mapping tool developed by DRG, provides tools, data, and resources to guide future tree-planting efforts specific to Oakland. This interactive tool allows users to prioritize new planting locations, project and estimate future tree canopy benefits, and budget for tree planting goals to reach set goals within the community. Tree canopy distribution can be viewed from a parcel level to entire city limits and other boundaries in between (such as census tracts, neighborhoods, etc.). These areas can be prioritized based on a wide variety of criteria in addition to current or potential canopy, including population density, air quality, BIPOC population, elder population, and more. Map 1 above was created using this tool looking at current tree canopy coverage by census tract. This is just one potential tool to be employed to identify where to prioritize new tree plantings in Oakland.

To use this interactive tool, visit https://canopy.treekeepersoftware.com/oaklandca

Example map: Census block groups rated by low canopy coverage and high percentage of BIPOC residents. Planting in purple zones will provide the greatest benefit to BIPOC community members who currently do not have equitable tree canopy coverage in their neighborhoods.
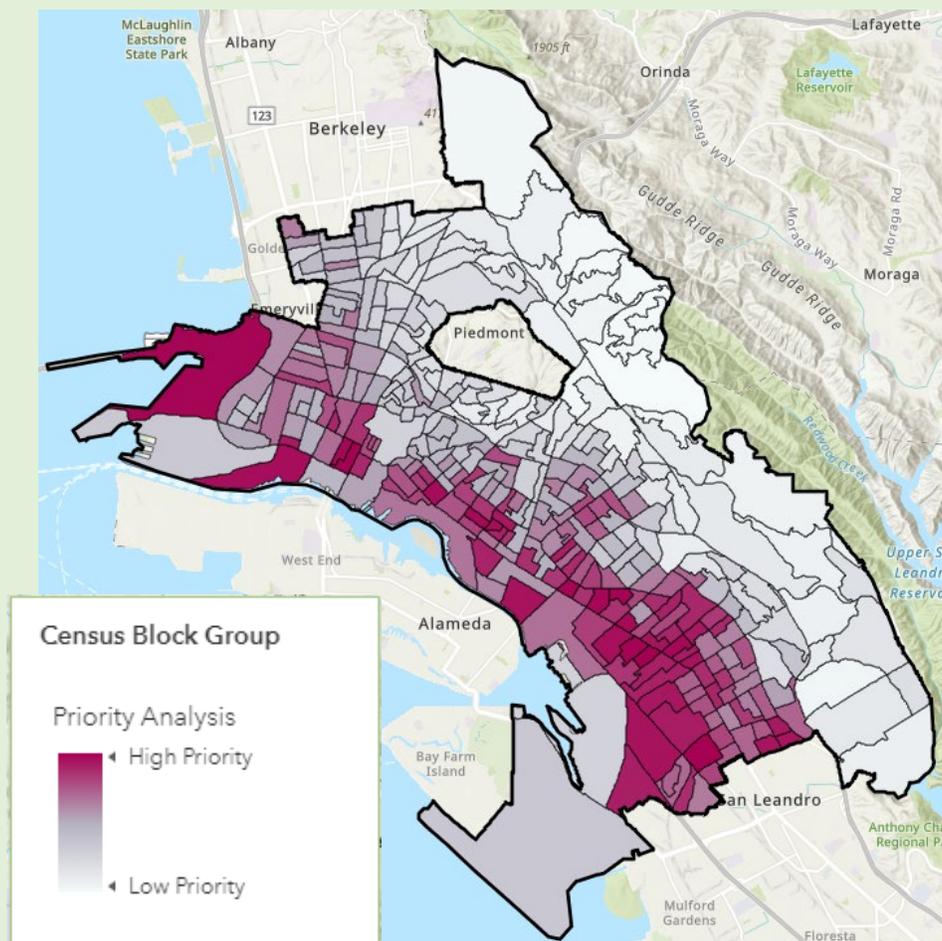
- Engaging BIPOC and frontline community members and persons with disabilities in planning and management to ensure that neighborhood needs and priorities are considered, promoting a more inclusive urban forest.
- Considering environmental justice implications to ensure that the urban forest does not disproportionately benefit or burden certain community members based on factors such as race, ethnicity, income, or disability.

The Urban Forest Plan aims to address equity gaps through the majority of its 9 goals, 32 strategies, and 80 action items (see Table 2. above) in the following ways:
- Restore city services, including tree planting and tree pruning, and develop stronger relationships with the community. All activities will address frontline communities first that have been neglected for so long and have fewer trees as a result.
  - Re-establish routine pruning of all city street and park trees.
  - Re-establish a tree planting program and support for community-led planting efforts (3,000 or more trees per year) using priority planting maps that identify the frontline communities currently with the fewest number of trees.
- Continue building trust and relationships with frontline community members and incorporating their needs into the Oakland's urban forestry programming. The outreach and engagement for the Urban Forest Plan was considered a first step towards establishing and growing greater engagement between the city and the community.
- Make the urban forest more accessible for more people, especially individuals in frontline communities where there is less tree canopy.
- Create more green-collar job opportunities, either directly by hiring more staff or indirectly by working with local educational institutions and nonprofits to help people find gainful employment.
- And in additional ways, such as assisting with land rematriation, working with local artists to design tree benches and other ideas from the community.

The Urban Forest Plan can succeed in filling equity gaps by providing the framework for Oakland to create and deepen partnerships with community members and community groups. The Plan identifies a long list of potential partners for implementing the many goals, objectives, and action items identified in the Plan that will be necessary for growing an equitable and healthy urban forest for Oakland.

Implementation

The Urban Forest Plan identifies the following guiding principles for implementation that are based on those of the Department of Race & Equity:
- On-going community engagement, with a focus on frontline communities, to learn and adapt to arising community needs.
- Explore and develop partnerships where frontline members are directly involved in identifying problems and solutions.

- Co-create policies and programs with frontline community members, removing barriers to participation.
- Prioritize service provision in frontline communities and start citywide programs in frontline communities.
- Use analytic tools to measure equity indicators over time and evaluate the impact of equity-focused programming.
- Anticipate, monitor, and mitigate unintended consequences that may directly or indirectly affect frontline communities.

The Plan identifies six steps required for implementation:

1. **Plan Adoption:** The Urban Forest Plan will need to be adopted by the City Council to become official City policy.
2. **Implementation Team:** An Implementation Team composed of City of Oakland staff, local partners, residents, and community leaders will be formed to link action items to funding, staffing, and partnership opportunities, measure and monitor progress, and adapt to changing conditions over time. This Team may take shape in the form of an official City Committee, a working group of an existing Committee, or other means.
3. **Setting Priorities:** The Implementation Team will assign priorities to each action item, establish estimated timelines, and identify the resources needed to accomplish each one.
4. **Allocating Funding & Resources:** Identify, obtain, and allocate adequate resources, including funding, staff, and equipment, to support the implementation of the Urban Forest Plan action items. Consider internal funding sources as well as outside funding opportunities through grants, partnerships, and community initiatives.
5. **Plan Implementation:** City government and partners perform agreed-upon action items according to implementation guidelines.
6. **Measuring & Monitoring Progress:** The Implementation Team will track and evaluate progress on the Plan's action items and racially equitable outcomes, celebrate successes, hold government and partners accountable, and provide transparency to the public through reporting.

Securing funding is going to be a large hurdle, but fortunately, the cost is in the millions and not the billions. The Plan estimates that it will cost approximately $17 million to $21 million per year to implement the major components of the Plan (first 10 years only – will increase as costs increase in subsequent years). The Division's current budget is around $6 million, so this is an increase of $11 million to $15 million needed. The Plan identifies a variety of potential funding sources, including taxes and grant money.

The Division has already been successful in securing $8 million in grant funding for the next five years to partially fund tree pruning and tree planting with two nonprofit partner groups. All work for this grant will be focused on frontline communities.

Evaluation & Accountability

The Implementation Team will be a crucial component in evaluating progress and ensuring accountability. Part of their task will be to regularly report on progress made toward meeting the goals, strategies, and action items of the Plan, as well as the effectiveness of the outcomes. This will include assessing progress through the Racial Equity Result-Based Accountability (RBA) Meaningful Measures Model (see Table 3). The Implementation Team will be responsible for assessing each Urban Forest Plan action item and identifying and vetting the attributes to include in the RBA. Part of this includes identifying if community members are better off from the outcomes of the Plan's actions, such as have more trees been planted in a frontline community and have those trees directly benefited the residents as expected or has the development of green job programs for residents resulted in full-time work for individuals that provides livable wages. The implementation team must identify additional examples of how the Plan will improve people's lives and then measure outcomes to verify successes.

The evaluation process will also include reflection and continuous engagement with the community. The Plan is meant to cover fifty years. Community priorities and needs are likely to change throughout the lifetime of the Plan, so it will be necessary to re-evaluate and adapt as needed.

Table 4. Racial Equity Result-Based Accountability (RBA) Meaningful Measures Model

Conclusion

Equity was considered at every step of developing the Urban Forest Plan and in formulating its goals, strategies, and action items for growing and maintaining a healthy urban forest throughout Oakland. If adopted and funded, the Plan will provide the framework to not only grow and improve the urban forest, but to do so equitably and begin to reduce the gaps in services, engagement, and canopy cover in frontline communities. Executing the Plan will begin the process of closing disparities and inequities in the distribution and health of trees in frontline communities, which will in turn improve the lives of those who live in frontline communities. Trees are a long-term investment and change will be incremental, but the Plan provides the roadmap needed to make lasting changes to improve Oakland's frontline communities. Dedicated funding is crucial for the Plan's success.