Administrative Report

J.1., **File #** PWS25-1308 **Meeting Date:** 9/22/2025

To: **PUBLIC WORKS AND SUSTAINABILITY COMMISSION**

From: DEPARTMENT OF PUBLIC WORKS

TITLE

DISCUSSION ON STRATEGIES FOR INCREASING THE CITY'S TREE CANOPY

EXECUTIVE SUMMARY

The Strategic Plan of the City Council includes an objective to "Inventory the City's tree canopy and present a discussion item to the City Council to determine the best strategies to enhance the tree canopy in the future". The City has recently adopted a tree protection ordinance to protect existing trees, but the objective asks what more could be done to increase the tree canopy in the City. Staff is seeking input from the public and the Public Works and Sustainability Commission (PWSC) on this topic in preparation for presentation of a report to the City Council.

BACKGROUND

The benefits of a healthy tree canopy in urban areas are becoming increasingly understood and appreciated. Documented benefits include cleaner air, heat island effect reduction, improved wildlife habitat, aesthetic value, economic value of property, stormwater quality improvements and mental health benefits. In 2021, the City Council directed the Public Works Department to begin exploration of potential changes to the City's Municipal Code to protect and potentially enhance the City's urban forest. Staff presented information and collected feedback from three of the City's commissions and reported back to the City Council. In the end, the City Council adopted ordinance changes that address protection of City trees (those in parks and in the public right of way). A summary of the activities of staff and the recommendations and actions of the various commissions and the Council are included as Attachment 1.

Determining goals and policies for the trees that are owned by the City and under its control is relatively straightforward. However, potential ordinances to address removal of, or requirements to install trees on private property can be much more controversial. Drastic improvements to the City tree canopy coverage will be difficult to achieve without addressing trees on private property, which describes about 73% of the City's land area. Therefore, an important area for strategy discussion is how to address tree canopy improvement on private property, given the various interests and concerns of the residents, businesses and institutions in the City.

DISCUSSION

The topic of tree canopy development is an important topic in California and is receiving considerable attention at the local, state and Federal levels. Several good resources on tree canopy management and master planning exist. These resources range from practical guides of best practices to a deep exploration of cultural values, social and economic benefits and needs for partnership and funding.

The topic is usually a component of a larger Climate Action Plan or developed in light of similar high-level plans to address the changing environment and our ability to live sustainably within it. Several agency examples include:

- LA County's Community Forest Management Plan
  <https://cfmp.lacounty.gov/>

- City of Claremont Urban Forest Management Plan
  <https://www.claremontca.gov/City-Services/Trees>

- City of Garden Grove Urban Forest Management Plan
  <https://ggcity.org/sites/default/files/UFMP-Final-Plan.pdf>

The most thoroughly developed plan model is typically referred to as an Urban (or Community) Forest Management Plan (UFMP). This model yields a strategic, data-driven, and community-informed action plan for an agency to sustainably manage and grow its urban tree canopy. It includes steps like establishing a shared vision, conducting tree inventories and health assessments, developing strategic goals and actionable plans for planting and maintenance, and monitoring progress over time. The plan aims to provide quantifiable benefits such as improved public health, environmental protection from climate change, increased biodiversity, and enhanced community well-being.

Development of a UFMP is meant to provide guidance for agency activity and review for a period of decades, as the realities of tree canopy development include those evident in the natural growth timelines of trees. However, more short term and less involved projects have been done as first and more expedient steps. For instance, several agencies that are members of the nearby Gateway Cities Council of Governments recently developed a much smaller document, as part of an Urban Tree Canopy Community Prioritization Project, see this link for the *Final Report* <https://cms3.revize.com/revize/gatewaycitiescouncilofgovernments/Documents/Initiatives%20Projects/Climate%20Air%20Quality/Urban%20Tree%20Canopy%20Project/California%20Resilience%20Challenge%20-%20Urban%20Tree%20Canopy%20Final%20Report%20December%202022.pdf> produced by this effort. From the executive summary, the project goals were explained as:

> *"…this project intended to provide insight into improving the tree canopy in these cities in a deliberate and thoughtful manner that prioritized the needs and desires of the residents within these communities and to invest in areas that have been historically excluded from accessing necessary resources and funding. The project sought to lay the groundwork for cities to bring about the benefits associated with increasing urban tree canopy, such as improved air quality, the mitigation of extreme heat, aesthetic value, and increased property values, by providing maps, data, and reports that can help guide the cities' urban forestry strategies for the future."*

This project does not intend or express itself to be a 40-year guidance document. Rather it provides important mapping to get the process started, as first steps to identify tree canopy deficiencies and address the reasons for them, in those cities. A similar effort to provide data related to existing inventory, develop community informed priorities and settle on locally applicable policies and practices to preserve and enhance both City-owned and privately owned tree canopy would be of

value. Such a project would include similar phases that might include:

1. Develop a parcel level assessment of existing and potential tree canopy based on high-resolution imagery and LiDAR date
2. Conduct a data-driven and collaborative prioritization process through surveys, public outreach and input from established experts and standards
3. Produce analyses, reports, maps and tools to inform and empower the community and City to implement best practices for short- and long-term outcomes

The City's Urban Forester and Arborist has some experience with this with a previous employer in San Diego County. His recommendations, captured in email correspondence included as Attachment 2, include a program that follows a similar outline.

In general, similarities of any good program include exploration of City priorities and identifying policy over three basic areas. These include:

1. Assessing and measuring current inventory and establishing improvement benchmarks over an appropriate schedule
2. Developing practice and policy guidance to educate, direct, incentivize and regulate urban forest management for both agency controlled and privately controlled trees and space for trees
3. Establishing monitoring and review processes to continue to improve the program as conditions change and to inform funding level required to achieve desired results

The City's current tree canopy is reported as 8.3% coverage on the statewide database (<https://www.fs.usda.gov/r05/state-tribal-forestry/californias-urban-tree-canopy>) prepared by the US Department of Agriculture (USDA), parent agency of the US Forest Service. The data is provided by census tract, allowing one to explore how canopy coverage varies form that average throughout the City. Some portions of the City, especially near the waterfront have canopy coverage percentages in the low single digits, while others in certain single family neighborhoods have coverage levels in the mid-teens.

While this resource gives a good comparative measure of tree canopy within Redondo Beach and among other California cities, caution must be used to understand that number in an absolute sense. Often the algorithms used to measure the coverage carve out certain types of land use, based on the objectives of their measurement. For instance, the LA County U/CFMP discounts naturally occurring forested areas at one end and large developments where trees are unwanted, such as LAX. This is because the County's purpose is to understand what can be done to improve the County's canopy in the developed and populated parts of its land area.

A second example for caution can be taken from the USDA database mentioned above. The USDA database shows a marked and alarming decrease in canopy - exceeding 20% reduction in many census tracts - in the four-year period between 2018 and 2022. Taking note that some less developed and forested areas may have been affected by wildfire to account for such a drop, reductions of this magnitude are also seen in Redondo Beach numbers, where no massive fire or other catastrophic tree destroying events have taken place. Closer examination reveals changes to methodology, resolution of aerial imagery or interpretation of those images is likely to account for the change, more than changes in the field. Figure 1 shows a comparison of polygons (dark green vs lighter green) identified as tree canopy between 2018 and 2022, which suggests changes to techniques rather than true loss of canopy. Both of these examples emphasize the need for a better

understanding of the City's tree canopy by a commissioned and specific study.

Figure 1 - Tree Canopy Comparison 2018 to 2022 - USDA Viewer

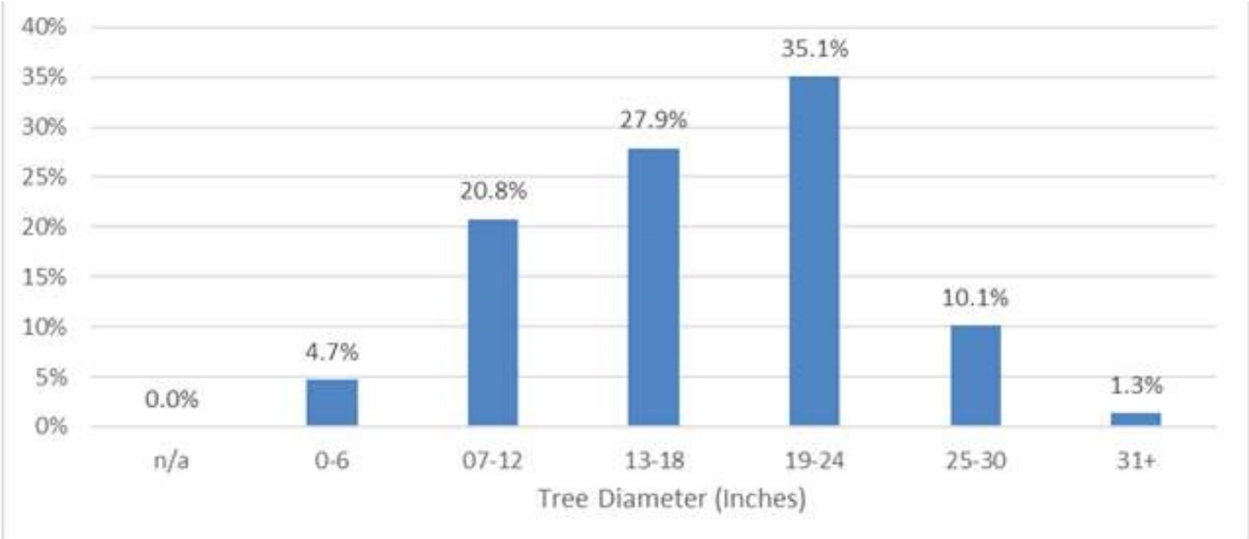
The current inventory of City owned trees includes over 11,300 trees made up of over 200 species. The diversity of species, an important element of a health canopy is represented in Table 1. The top ten most common species are identified but another 216 species are included in the "Other" category. While none of these "other' species make up more than 2% of the inventory, together this broad diversity represents over 40% of the City's trees.

Table 1 - Diversity of City Owned Trees - By Rank

Botanical	Common	Total	Pct.
Washingtonia robusta	MEXICAN FAN PALM	1,986	17.48%
Magnolia grandiflora	SOUTHERN MAGNOLIA	1,874	16.49%
Ulmus parvifolia	CHINESE ELM	652	5.74%
Metrosideros excelsa	NEW ZEALAND CHRISTMAS TREE	599	5.27%
Archontophoenix cunninghamiana	KING PALM	315	2.77%
Lagerstroemia indica	CRAPE MYRTLE	284	2.50%
Schinus terebinthifolius	BRAZILIAN PEPPER	238	2.09%
Cupaniopsis anacardioides	CARROTWOOD	236	2.08%
Melaleuca quinquenervia	CAJEPUT TREE	227	2.00%
Lophostemon confertus	BRISBANE BOX	223	1.96%
Other	OTHER	4,730	41.62%
Total Trees		**11,364**	**100%**

Another measure of the City controlled inventory is diversity in tree maturity, using trunk diameter as a proxy metric. An ideal distribution to ensure a growing canopy in the future would likely have most of the tree stock in the younger, smaller diameter trunks. This emphasis accounts for the fact that many of these will not reach full, broad canopy, maturity. From Chart 1, it can be seen that the City's inventory is heavily biased towards the mature trees. This indicates it will be difficult to increase canopy coverage without planting many more young trees, and that increase in canopy will come only as trees mature. The trunk size distribution also indicates the vulnerability the City has to its canopy by removal of or natural demise of its mature trees.

Chart 1 - Redondo Beach Tree Diameter Distribution



This accounting of City owned trees by definition does not include trees on private property, which makes up nearly three quarters of the City's land area. Information, such as count, type and maturity for the portion of the City's urban forest made up by privately owned trees is not currently available.

The City's tree canopy resource, made up of both privately and publicly owned trees provide a crucial and often overlooked benefit to the residents and visitors to the City. Efforts for the City to manage it will require a comprehensive data driven assessment of existing conditions, a well thought out and collaborative policy and value apparatus, and resources to implement the practical implications of these policies.

Best practices include master planning using a UFMP model, a smaller scale prioritization model (similar to the Gateway Cities COG), practices conducted by City staff for City owned trees, and regulatory or incentive programs to influence what happens on private property.

Staff is seeking response and input from the Commission and the public to identify priorities, community shared values, and recommendations on strategies to enhance the tree canopy to provide to Council.

COORDINATION

Coordination of this report took place with the Community Development Department and the Public Works Department.

ATTACHMENTS

1 - Summary of City’s Tree Ordinance discussion and adoption, 2021 to date
2 - Information on Increasing Canopy Cover - City's Urban Forester

Tree Ordinance Development Timeline

The following is a timeline of the landmark dates between 2021 and 2023 leading to the City Council adopting the City's first tree ordinance:

8/17/21 The Council held an initial discussion regarding the need for an ordinance to protect trees in Redondo Beach. A draft ordinance proposed by residents Mara Lang and Laura MacMoran was considered. Staff was directed to solicit input from the Recreation & Parks Commission, Public Works Commission and Planning Commission regarding four potential elements of a tree ordinance:

- A definition of protected/heritage trees
- Prohibiting removal of parkways trees for driveway access as part of construction projects
- Prohibiting removal of protected/heritage trees located on private property
- The types of trees that are recommended and discouraged from being planted on public and private property

11/11/21 The Recreation & Parks Commission reviewed the tree ordinance criteria and made the following recommendations:

- That the City establish a heritage tree designation
- That trees be protected from driveway expansions
- That the City establish regulations regarding removal of private property trees
- That recommended and discouraged trees species lists be developed

12/1/21 The Public Works Commission reviewed the tree ordinance criteria and made the following recommendations:

- That the City establish a heritage tree designation and a public review process for removal of heritage trees
- Maintaining the current procedures used by the Public Works Department for evaluating driveway-related tree removal requests
- That the tree ordinance address certain trees on private property
- That recommended and discouraged trees species lists be developed

1/20/22 The Planning Commission reviewed the tree ordinance criteria and made the following recommendations:

- That the City develop a tree ordinance that includes a protected/heritage tree designation
- That the ordinance prohibit removal of trees to provide driveway access as part of new construction projects
- That the ordinance prohibit removal of heritage trees on private property
- That recommended and discouraged trees species lists be developed

3/15/22 The City Council reviewed the input from the three Commissions & directed staff to develop an ordinance to regulate trees on both public and private property, and to include the following elements:

- The goal of replacing removed trees on a one-to-one basis and regulating the unfettered removal of trees in an effort to preserve and grow a desirable tree canopy in Redondo Beach
- No front yard tree removal without a one-to-one replacement with a 24" tree from the favored species list
- Allowing removal of dead, sick, disfavored or nuisance causing species in front yard setbacks, with one-to-one replacement
- A fee be paid to the City tree fund if a rear yard or side yard tree is removed. Violations resulting in a fine to cover the cost of planting five trees, plus $15,000
- Replacement trees be minimum 24" box
- Incorporate the best aspects from the Manhattan Beach, Encinitas and Beverly Hills tree ordinances,
- Small fees paid to the City to cover the cost of tree replacements
- Objective standards for City staff and experts to have reasonable flexibility to uphold the goals of the City
- A heritage tree definition, favored species list and disfavored species list
- When a property sells, a requirement to install a 24" box tree in the parkway if a tree is missing
- No criminal enforcement of violations

1/17/23 Staff presented a draft ordinance addressing the various elements requested by the Council. The Council heard testimony from 21 residents and received 29 eComments. After discussion, the Council directed staff to return with an ordinance containing the existing language pertaining to trees on public property and removing all sections addressing trees on private property. Council also directed staff to explore an incentive program for property owners to plant and replace trees on private property.

2/7/22 Ordinance No. 3251-23 was introduced for first reading

2/14/23 Council adopted Ordinance No. 3251-23

From: Mark Garlock
To: Andrew Winje
Cc: Michael Klein
Subject: Information on Increasing Canopy Cover
Date: Tuesday, September 16, 2025 2:04:28 PM
Attachments: image001.png

Hi Andy,

Increasing canopy cover requires strategic tree planting in parkways, parks and other public spaces. Private property can also be considered for increasing canopy cover by incentivizing or requiring tree planting on private property through policies or providing trees to private property owners. Canopy cover objectives can be driven by stakeholders in the community, environmental goals or a component of a climate action plan.

The following should be considered when developing a plan to increase canopy cover in a City.

Assessing and Quantifying the Urban Forest

- Quantify the urban forest though inventory data. This includes tree count, condition, recommended maintenance and vacant sites
- Quantify Canopy cover through Lidar data
- Quantify benefits of the urban forest with software such as iTree

Planning The Urban Forest

- Develop urban forest canopy goals. Most coastal cities in southern California have a goal of 15%-25% canopy cover.
- Urban Forestry Master Plans identify short and long term goals for the planning and management of the urban forest. These plans can range anywhere from $30k-$70k
- Develop a management plan which defines how the goals in the master plan will be accomplished within a time frame
- Prioritize planting locations using data collected to identify areas with significant needs for planting
- Develop ordinances that require a minimum percentage or tree canopy for new developments

Implementing Planting and Maintaining the Urban Forest

- Identify and develop funding through budgets or grants for planting and future maintenance
- Develop and implement a 'Young Tree Maintenance" program during the tree establishment period
- Promote species diversity and appropriate selection based on microclimate and parkway size
- Collaborate with local tree advocacy groups such as California Urban Forest Council for expertise and resources
- Educate the community on tree benefits though Arbor Day celebrations, community outreach and obtaining recognition as a Tree City USA

Please let me know if you need any additional information.

Mark Garlock

Parks and Urban Forestry Manager

310.697.3605

Mark.Garlock@redondo.org

J.1 – Increasing Tree Canopy

Discussion on Strategies

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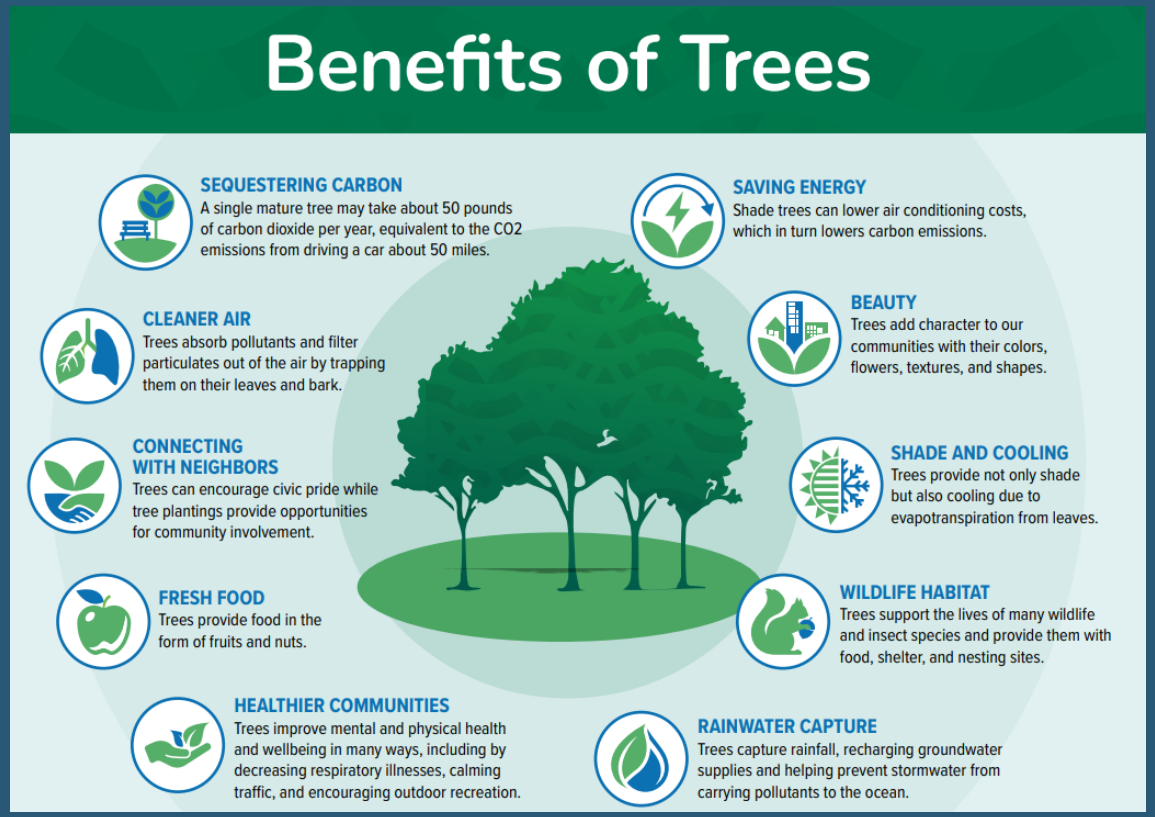
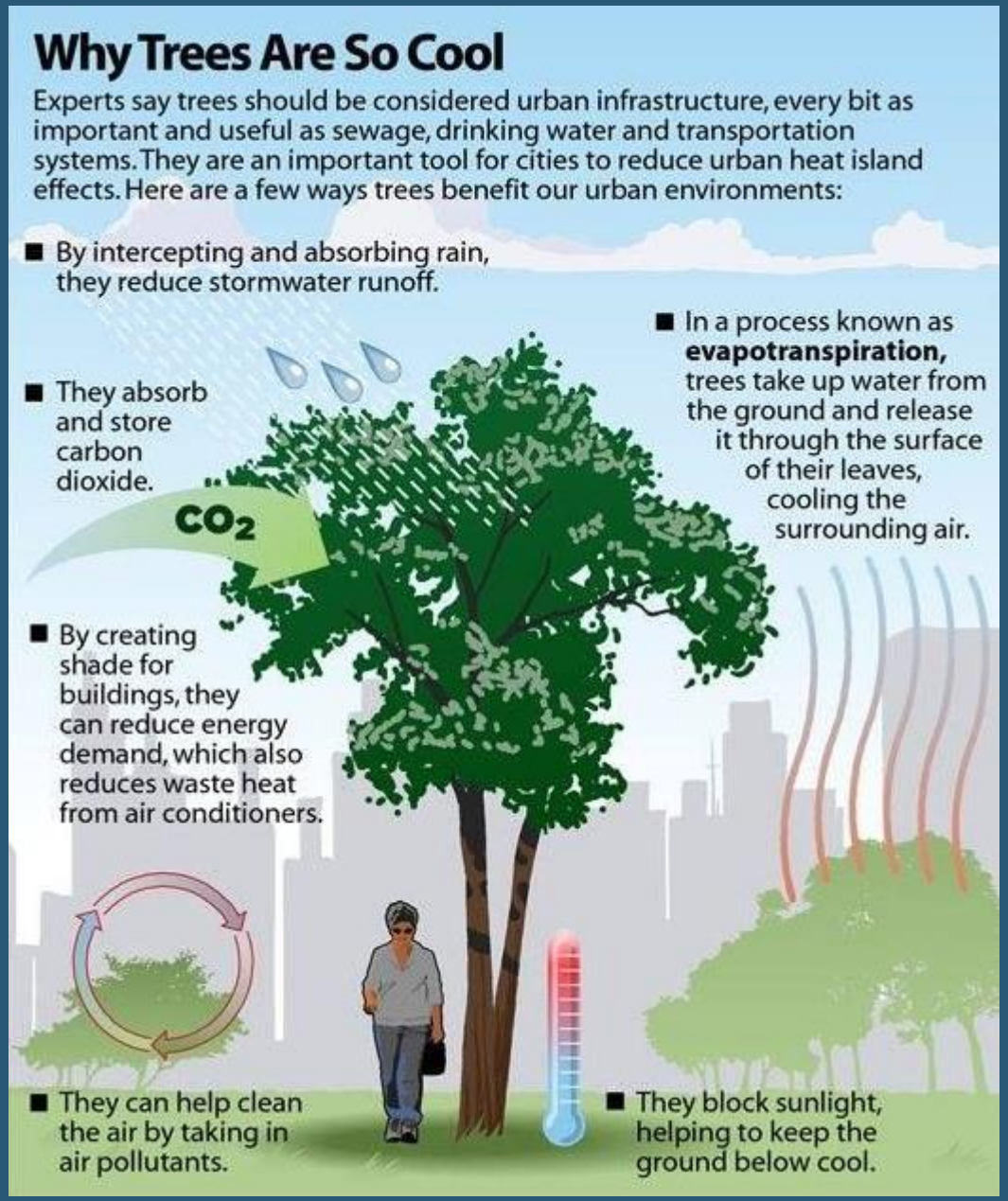
Public Works and Sustainability Commission
September 22, 2025

Background

- Strategic Plan Item
- City Tree Protection Ordinance
- Tree Canopy Benefits

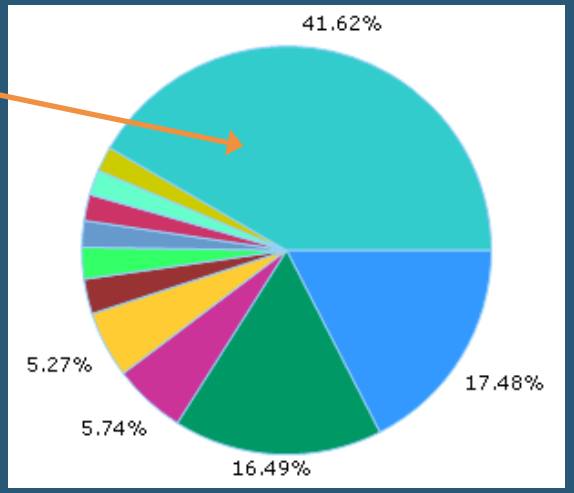


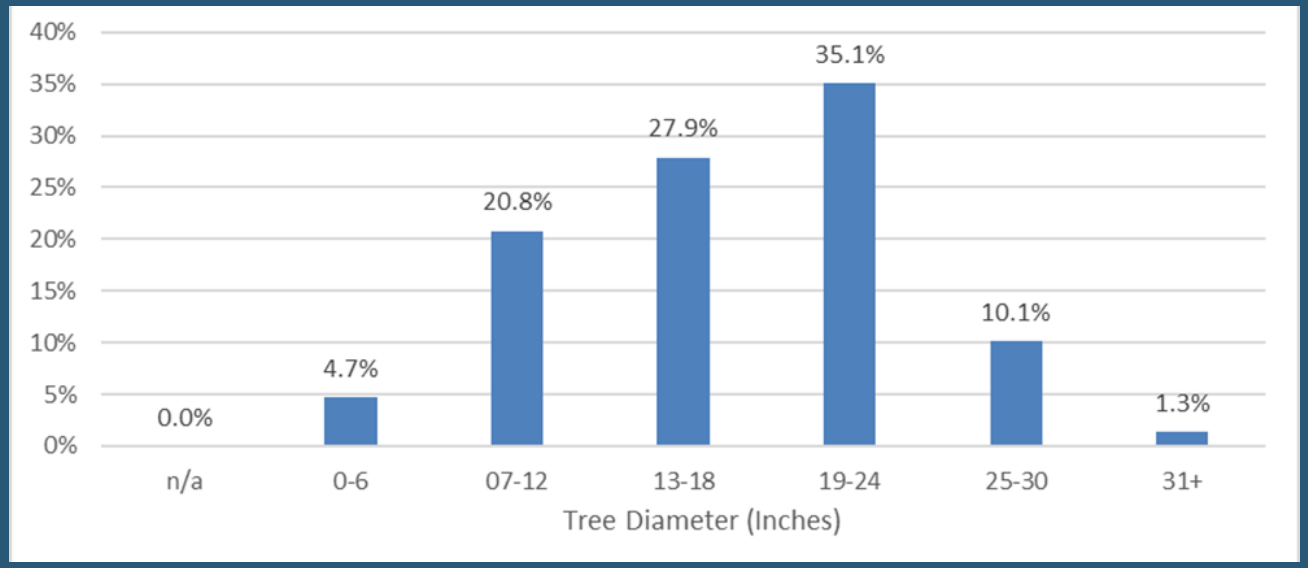


Redondo Beach Urban Forest

- Over 11,300 City Owned Trees
- Broad Species Diversity
- Age Distribution Balance

216 “Other” Species





Top 10 Species

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	Other	OTHER	4,730	41.62%
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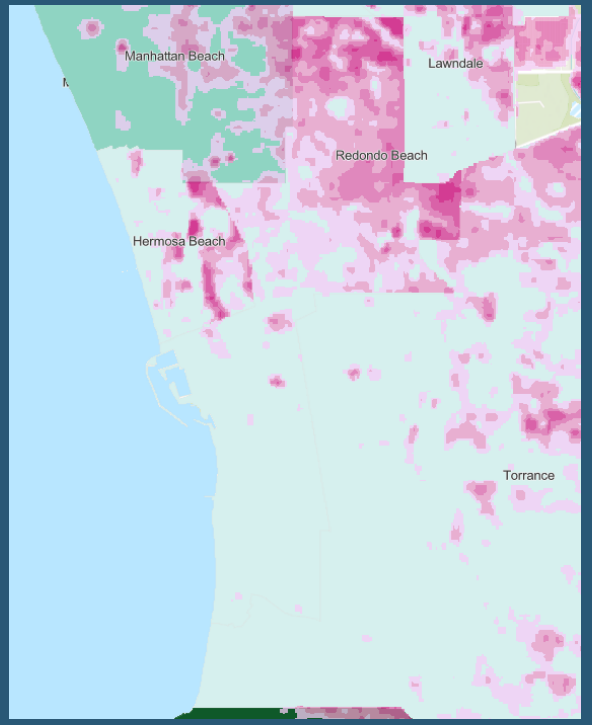
RB Canopy Coverage

- USDA/USFS data available
- RB is below state average
- Refinement as a first step
- Goals and timelines



Legend

UHI (Urban Heat Island) Severity 2023

Urban Heat Island Severity 2023 - City

Image

Value

- Mild
- Mild to Moderate
- Moderate
- Moderate to High
- Severe

City of Redondo Beach

Zoom to

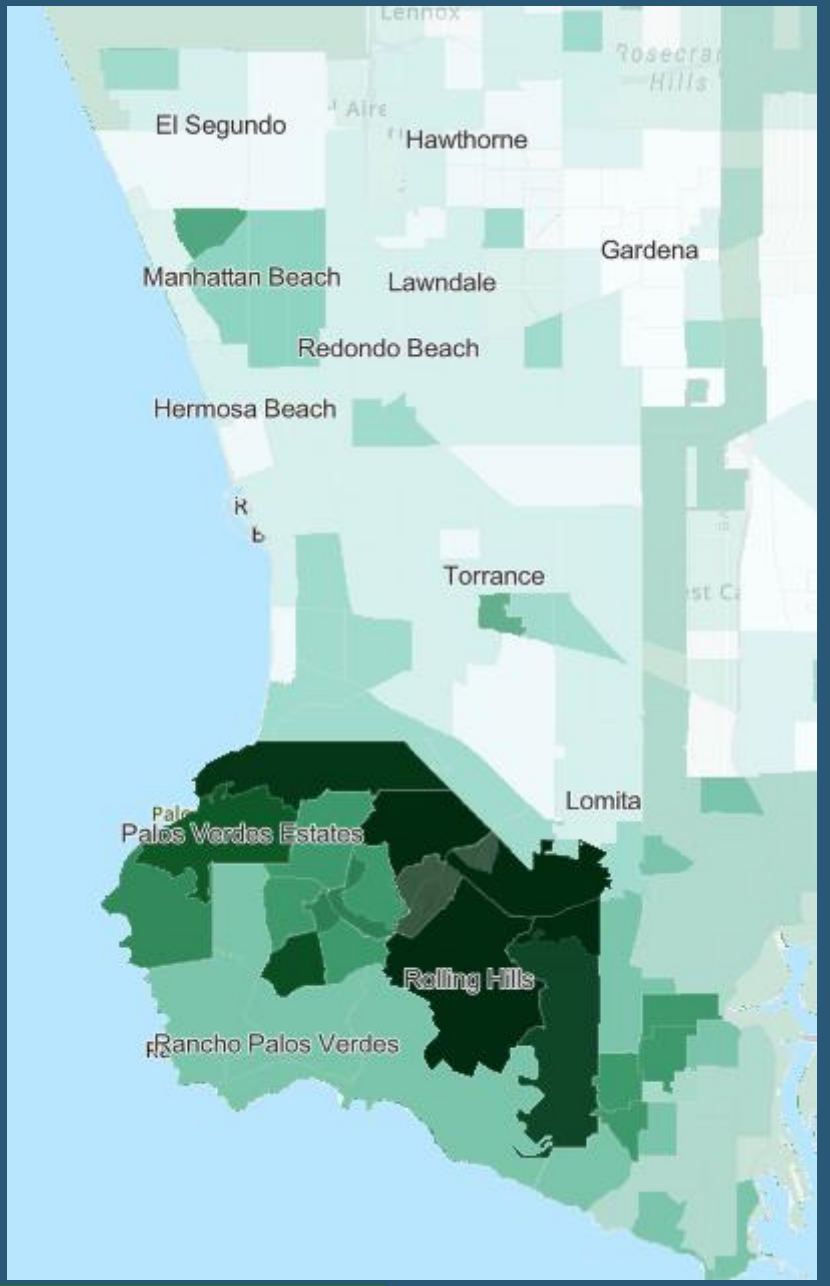
Percent Urban Canopy Cover 2022	8.3
Urban Canopy Acres 2022	329.6
Percent Urban Canopy Cover 2018	9.7
Urban Canopy Acres 2018	385.0
Percent Change in Urban Canopy Acres from 2018 to 2022	-14.4
Change in Acres of Urban Canopy from 2018 to 2022	-55.4

Legend

Statistics by City

Percent Urban Canopy Cover 2022

- Very High
- High
- Just Above State
- Just Below or Near Statewide Level
- Low
- Very Low



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USDA California Urban Tree Canopy Viewer

City Owned Trees

- Tree Protection Ordinance
- Approved Species List
- Standard of Care – Policy Manual
- Planting Programs

TREE CITY USA®
An Arbor Day Foundation Program

RBMC §5-11

Chapter 11 **TREE PROTECTION AND PRESERVATION**

- ☐ § 5-11.01 **Purpose.**
- ☐ § 5-11.02 **Definitions.**
- ☐ § 5-11.03 **Public trees—Prohibited activities.**
- ☐ § 5-11.04 **Public trees—Non-development requests to remove.**
- ☐ § 5-11.05 **Public trees—Development related requests to remove.**
- ☐ § 5-11.06 **Protection of public trees during construction.**
- ☐ § 5-11.07 **Public trees—Exemptions.**
- ☐ § 5-11.08 **Public trees—Violations and penalties.**
- ☐ § 5-11.09 **Public trees—Fee schedule.**
- ☐ § 5-11.10 **Public trees—Appeals.**
- ☐ § 5-11.11 **Public trees—Lists of favored and disfavored trees.**
- ☐ § 5-11.12 **Public trees—Policies and guidelines.**

☐ § 5-11.01 **Purpose.**

Tree protection and preservation is necessary for the health and welfare of the City. Trees gr
resource which help define the character of the City, and provide many social, economic, a
worthy of protection in order to preserve the scenic beauty, prevent soil erosion, provide

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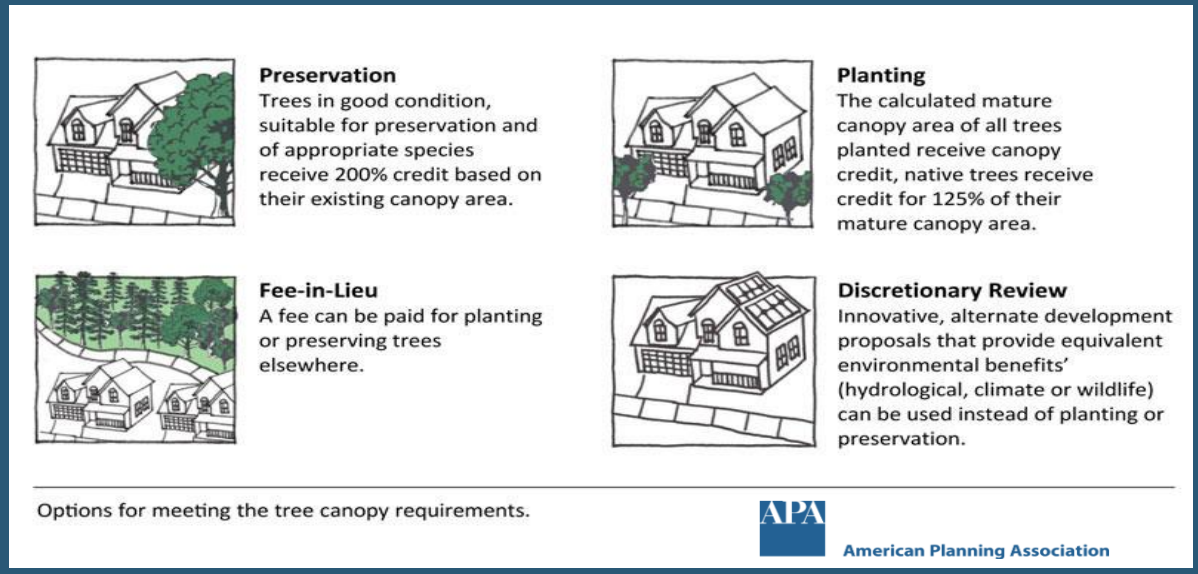
Privately Owned Trees

- Development Opportunities / Conditions
- Preservation Requirements
- Necessary Partnership



Land Use	Parcel Count
Single Family Residential	8,268
2-3 Unit Residential	3,512
4 or More Unit Residential	1,520
Mixed Use Residential/Commercial	41
Sum Residential	***13,341***
Commercial	***616***
Industrial	***78***
Institutional	***85***
Parks and Open Space	67
Utility and Open Space	23
Sum Open Space	***90***
Utility	44
Vacant	83
Total Parcels	***14,337***

Property Type	Area - Acres
City ROW	894
City Owned Parcels	185
Sum City Area	***1079***
Privately Owned Parcels	***2932***
TOTAL AREA IN CITY	***4010***
Percentage City Controlled	***27%***

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Strategic Approach

- Urban Forest Management Plan – Long Term approach – 2 to 4 decades
  - Data Driven - forest assessment, public engagement, social context
  - Social Equity – land use, resident values, shared vision
  - Biodiversity – interaction with built environment, setting, health and safety
  - Agency Management – maintenance & planting standards
  - Economic Drivers and Opportunities

- Priority Plan – Emphasis on moving the needle – 5 to 10 years
  - Local canopy assessment and potential
  - Identification of priority areas – spatial and administrative
  - Public surveys and presentations
  - Funding commitments & sources

- Quick Action – What we can do now – 1 to 2 years

RECOMMENDATION

- Provide input regarding priorities, scope, values, and strategies for staff to present to City Council

- Other recommendation(s) as determined by the PWSC