

## COMMUNITY PLANNING MONTH OCTOBER 30, 2025

#### Planning Among Oaks

Presented by LA County Planning and APA-LA

The County of Los Angeles recognizes that we occupy land originally and still inhabited and cared for by the Tongva, Tataviam, Serrano, Kizh, and Chumash Peoples. We honor and pay respect to their elders and descendants—past, present, and emerging—as they continue their stewardship of these lands and waters. We acknowledge that settler colonization resulted in land seizure, disease, subjugation, slavery, relocation, broken promises, genocide, and multigenerational trauma. This acknowledgment demonstrates our responsibility and commitment to truth, healing, and reconciliation and to elevating the stories, culture, and community of the original inhabitants of Los Angeles County. We are grateful to have the opportunity to live and work on these ancestral lands. We are dedicated to growing and sustaining relationships with Native peoples and local tribal governments, including (in no particular order) the:

- Fernandeño Tataviam Band of Mission Indians
- Gabrielino Tongva Indians of California Tribal Council
- Gabrieleno/Tongva San Gabriel Band of Mission Indians
- Gabrieleño Band of Mission Indians-Kizh Nation
- San Manuel Band of Mission Indians
- San Fernando Band of Mission Indians

To learn more about the First Peoples of Los Angeles County, please visit the Los Angeles City/County Native American Indian Commission website at lanaic.lacounty.gov.

#### Interpretation Services (\*\*)

#### **English**

Dear participants,
We are pleased to
inform you that
simultaneous
interpretation is
available for this
meeting. Please click
on the globe-shaped
icon and select your
preferred language.
Thank you.

#### *Spanish*

Estimados participantes,
Nos complace
informarles que hay
interpretación
simultánea disponible
para esta reunión. Por
favor, hagan clic en el
ícono con forma de
globo y seleccionen su
idioma preferido.
Gracias.

#### Chinese (Mandarin)

各位與會者, 歡迎參加本次會議, 大會提供同聲傳譯服 務。請點擊屏幕上的 地球圖標,選擇您所 偏好的語言。 謝謝。



#### **Community Planning Month Over the Years**

2024 – Equity and Planning

2023 - Shaping Mid-20th Century Los Angeles County

2022 - The Rise of Freeway Cap Projects

**2021** – The Changing Landscape of Mobility

**2020** – Equitable Processes Build Great Communities

2019 - Infrastructure that Benefits All







bit.ly/LACCommunityPlanningMonth

#### Agenda

- Introduction
- Presentation 1: Oaks, Equity, and Wildlife
- Presentation 2: The Map Beneath the Canopy
- Presentation 3: Why We Need Oak Trees
- Comments: The Planning Perspective
- Discussion and Q&A
- Closing remarks
- CM log instructions



#### **Speakers**

#### Eric Wood, Ph.D.

Associate Professor, California State University Los Angeles

#### **Daniel Hoffman**

Principal GIS Analyst, LA County Planning

#### **Rosi Dagit**

Principal Conservation Biologist and Certified Arborist, Resource Conservation District of the Santa Monica Mountains

Mark Herwick, AICP, commenter Supervising Planner, LA County Planning

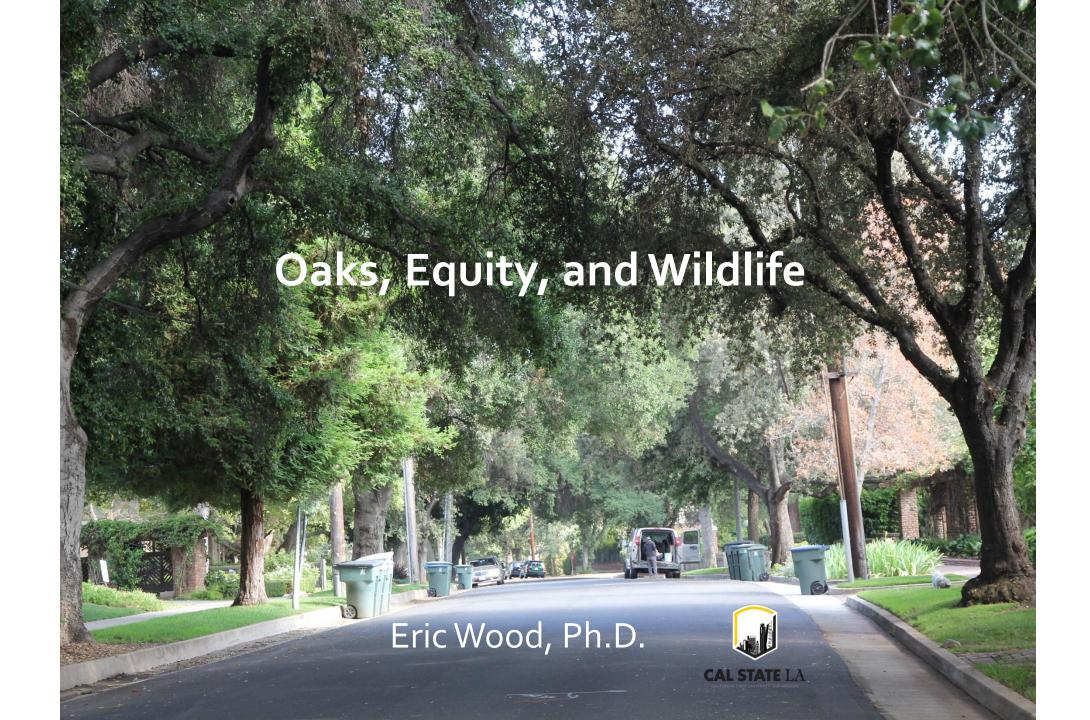


#### Elenna Salcido, Director APA-Los Angeles





# Eric Wood, Ph.D. Associate Professor, Cal State LA



#### Talk roadmap







1. Historic 2. Contemporary 3. Future

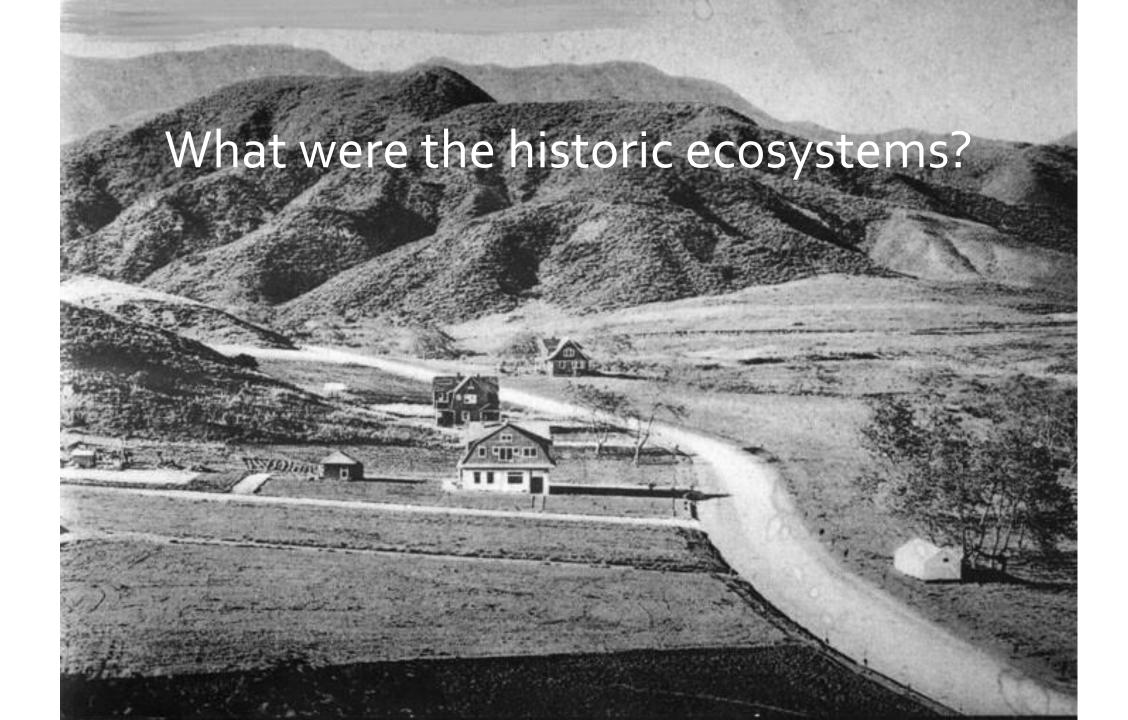




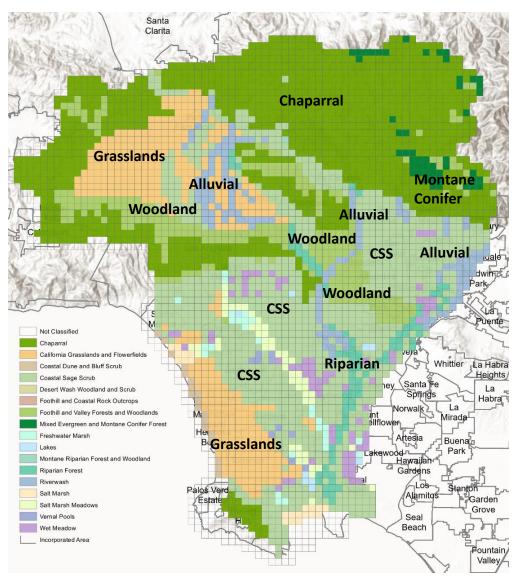






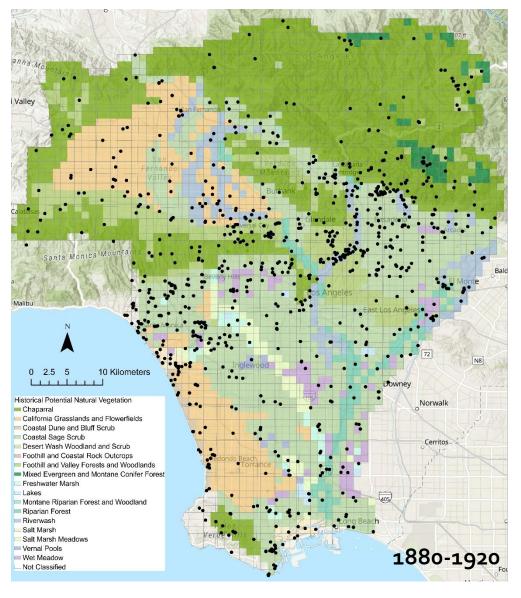


#### Historical potential vegetation



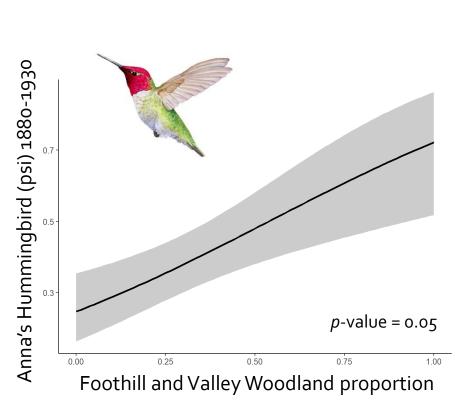
Ethington et al. 2020 – Historical Ecology of LA

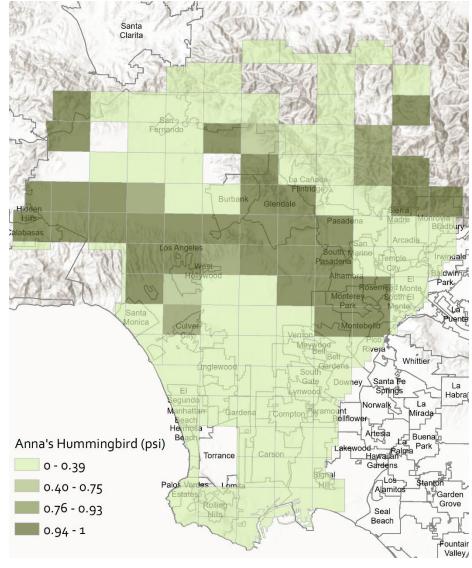
#### Historical bird egg and nest data



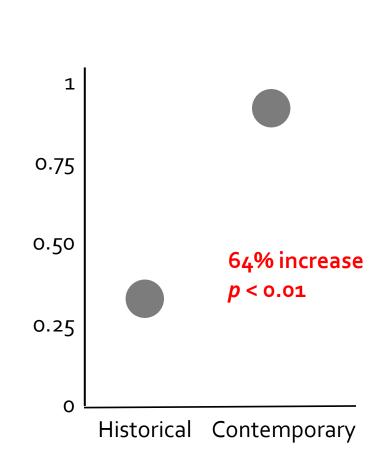
Lyon and Wood, 2023, Mapping LA History Project

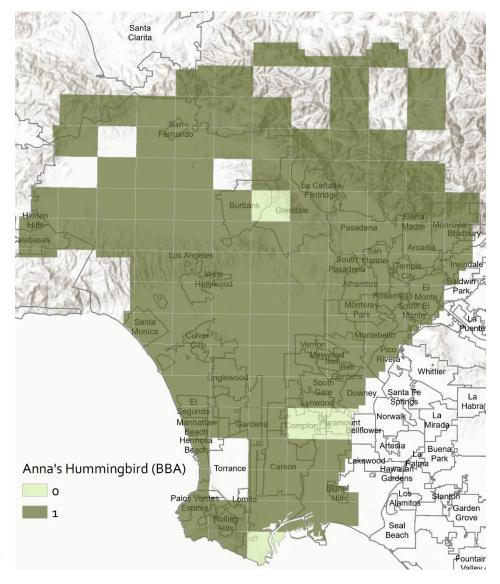
#### Historical distribution Anna's Hummingbird (Woodlands/Scrub)





#### Contemporary distribution Anna's Hummingbird (Woodlands/Scrub)



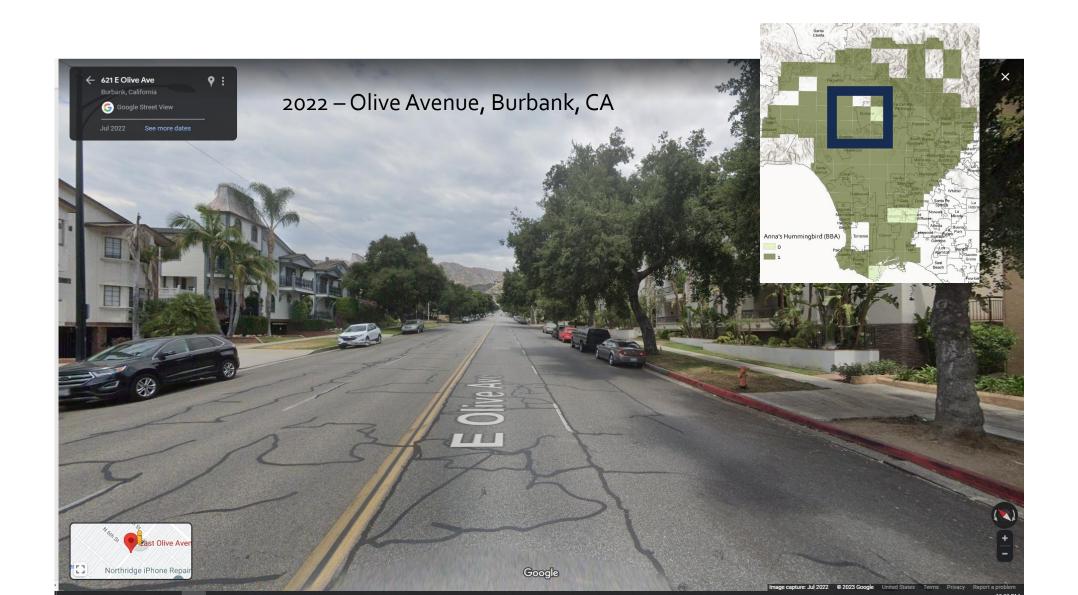


Lyon and Wood, 2023, Mapping LA History Project

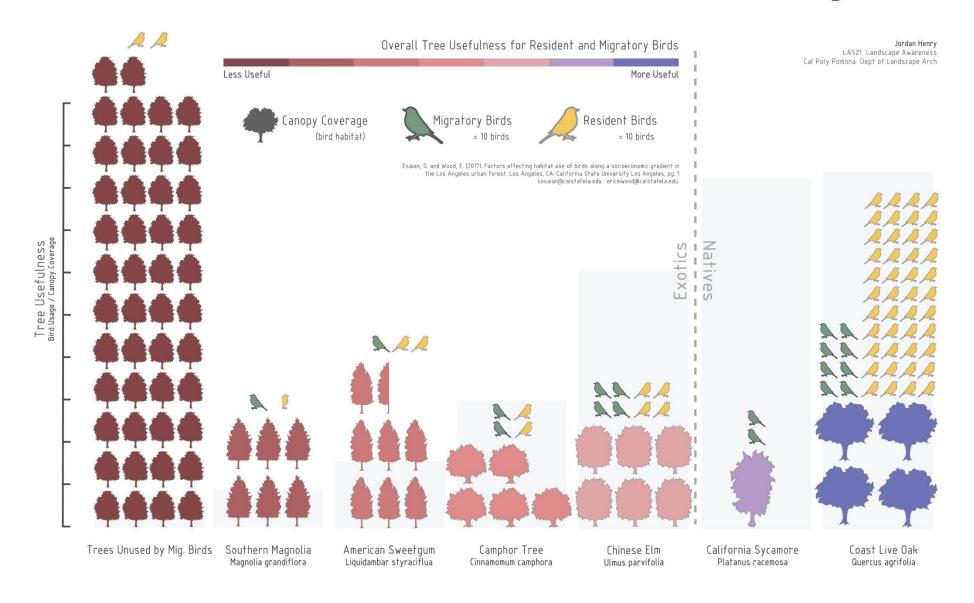
#### Urban Forest - then



#### Urban Forest - now



#### Which Trees Are Most Useful to Birds in Los Angeles?



#### Talk roadmap





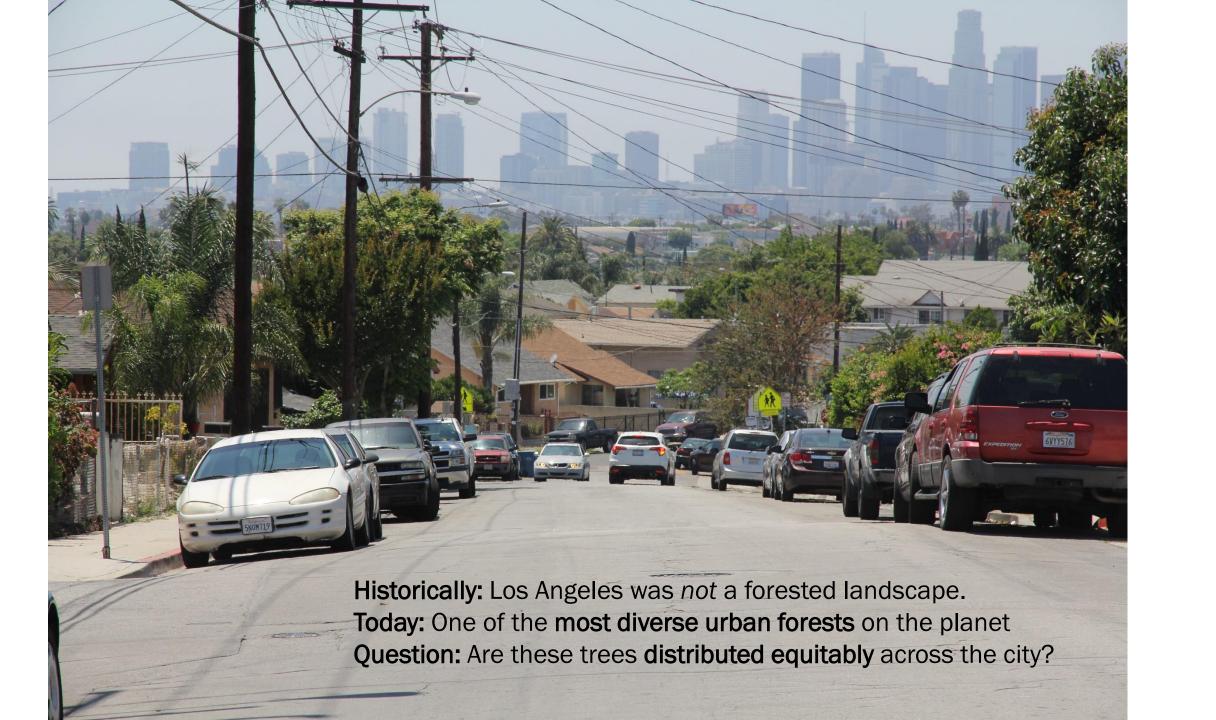


1. Historic 2. Contemporary 3. Future









#### The luxury effect – a tale as old as Los Angeles



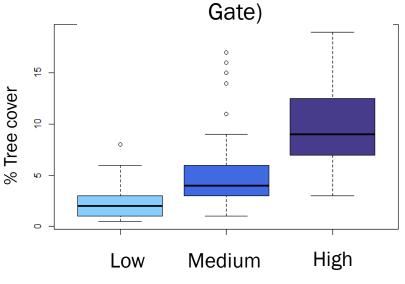




Low income (Boyle Heights)

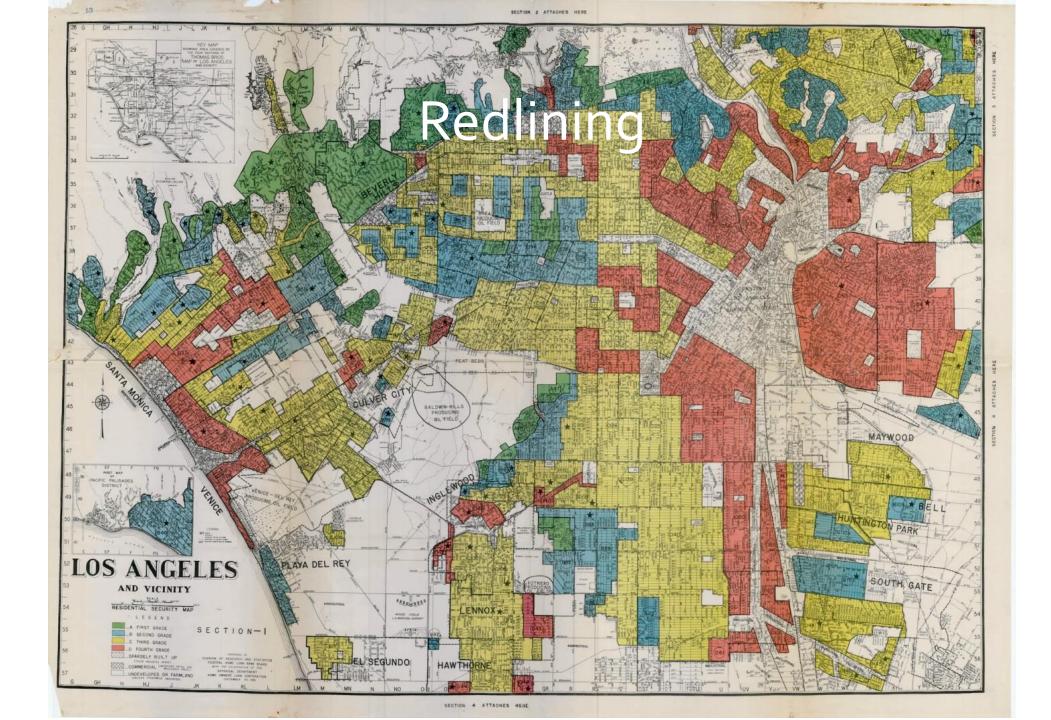
Medium income (South

High income (San Marino)



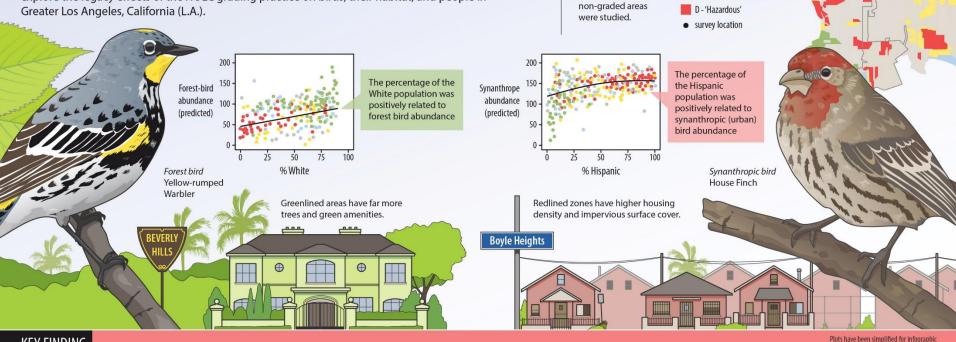
Where did this come from???

Socioeconomic status



#### Redlining continues to be related to avifaunal community patterns, their habitat and the people who experience them

The Home Owners' Loan Corporation (HOLC) was a U.S. government-sponsored program that used security-risk maps to evaluate mortgage lending practices from the 1930s until 1968. The risk maps were racially biased and showed where investment should be focused (greenlined areas; A = 'Best' for lending) or limited (redlined areas; D = 'Hazardous' for lending). The goal of this research was to explore the legacy effects of the HOLC grading practice on birds, their habitat, and people in Greater Los Angeles, California (L.A.).



**KEY FINDING** 

Historical redlining and contemporary patterns of income inequality are associated with distinct avifaunal communities and their habitat, which potentially influence the human experience of these components of biodiversity throughout L.A.

Wood, E.M, S. Esaian, C. Benitez, P.J. Ethington, T. Longcore and L.Y. Pomara. 2023. Historical racial redlining and contemporary patterns of income inequality negatively affect birds, their habitat, and people in Los Angeles, California. *Ornithological Applications*. https://doi.org/10.1093/ornithapp/duad044

Los Angeles

RISK MAP

A - 'Best'

**HOLC lending categories** 

B - 'Still desirable'

C - 'Definitely declining'

Beverly Hi

California

33 survey locations within residential

Los Angeles in

HOLC-graded and

nighborhoods across



#### Talk roadmap







1. Historic 2. Contemporary 3. Future









#### 70% of LA is residential Maybe 99% residential areas look like this



#### <1% of LA's residential areas?





#### Summary







1. Historic 2. Contemporary 3. Future











#### Where We Go from Here: Oaks + Equity + Wildlife

#### Why this update matters



**Protect** Keep healthy oaks on sites; design around them; require best-practice care



**Restore** Replace lost oaks with native oaks + understory; prioritize climate-ready species



Equity Target new planting + long-term stewardship in historically under-canopied 'areas

#### What residents can do



**Plant** native (oak + shrubs/forbs) to rebuild habitat in yards, parkways, and schools



Support funding for street-tree care (watering, pruning) so trees survive



Join neighborhood planting/ stewardship groups report oak impacts during permitting

#### With gratitude

Caroline Chen, Senior Planner

(cchen@planning.lacounty.gov)

Mark Herwick, Supervising Planner (mherwick@planning.lacounty.gov)

What the science says (in one line)

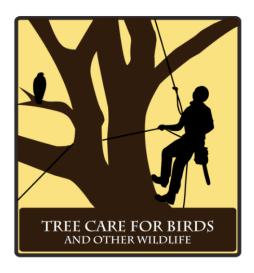
Native plantings  $\rightarrow$  more birds, more polllinators, more complex food webs  $\rightarrow$  healthier, cooler neighborhoods.

#### Tree Care for Wildlife Best Management Practices

https://treecareforbirds.com/

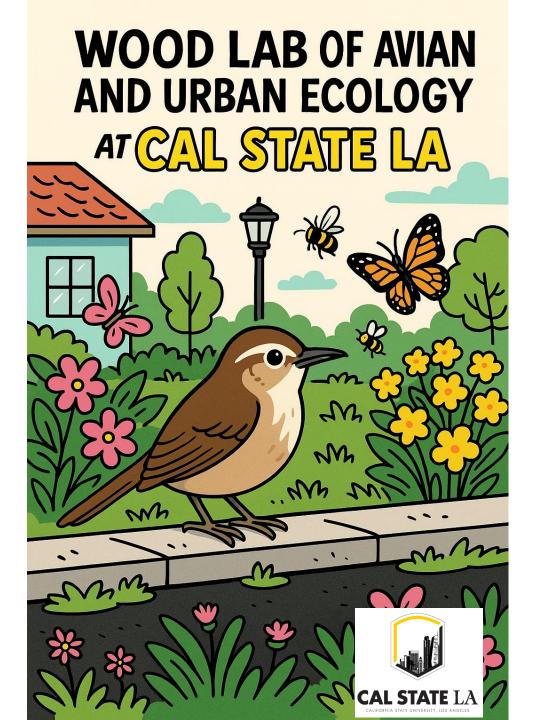
Bassett et al. 2022

with Western Chapter ISA Appendices •



Corey Bassett, Kara Donohue, and Ryan Gilpin

- Urban tree care shapes wildlife
   habitat every pruning or removal
   decision matters.
- Inspect for nests and adjust work to avoid harming birds and other species.
- Preserve deadwood and native trees (like coast live oak!) whenever safe; they're vital for biodiversity.
- Follow Tree Care for Wildlife BMPs to balance safety, aesthetics, and ecology.



Re-growing LA's future one oak, one yard, one neighborhood at a time.

#### Eric Wood, PhD

www.ericmwood.org

email: ericmwood@calstatela.edu

# Daniel Hoffman Principal GIS Analyst, LA County Planning



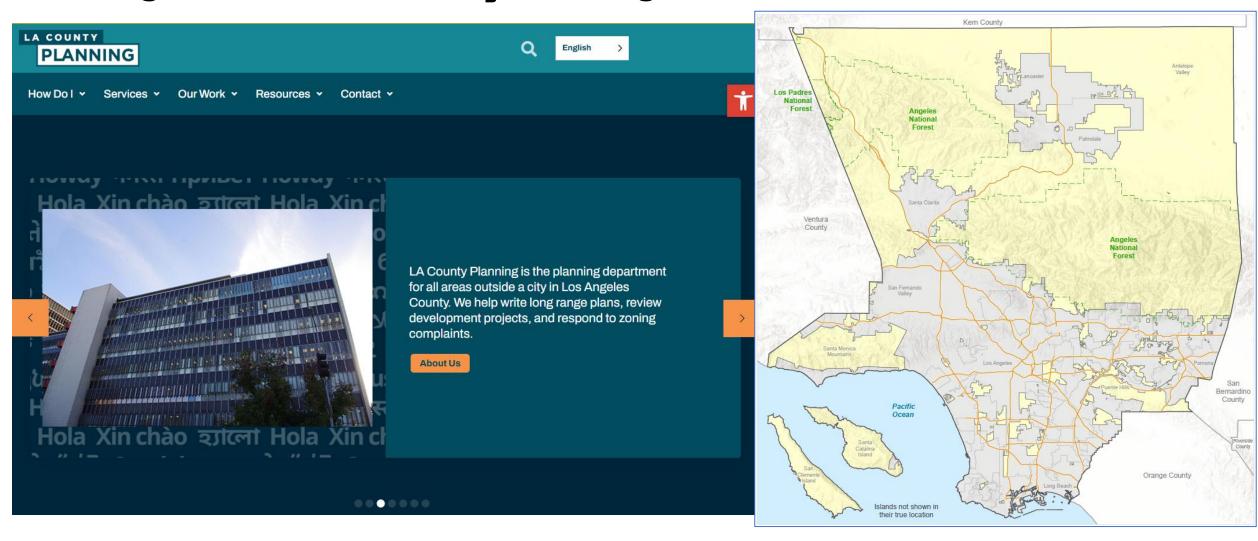
## The Map Beneath the Canopy: Discovering Trees Through the Tree Hub

For Community Planning Month – October 30, 2025 Daniel Hoffman, Principal GIS Analyst

# **Topics for Today**

- Brief Background
- LA County Tree and Oak initiatives
- Tree Hub Walk-through
- Oak Tree Monitoring

# **Our Organization - LA County Planning**



# LA County Oak and Tree related initiatives

- Community Forest Management Plan LA County's first Community Forest Management Plan (CFMP) lays out a practical, people-centered path to grow a cooler, greener, and more connected urban forest.
- LA County Oak Tree Program The Oak Tree Program balances preservation and progress—safeguarding native oaks, refining permitting, and promoting thoughtful design that protects LA County's oak heritage.
- Oak Tree Pests To defend LA County's oaks from invasive pests like the Goldspotted Oak Borer (GSOB), the County is developing stronger inspection, education, and restoration programs.
- Tree Committee This group is driving cross-department collaboration on canopy expansion, workforce pathways, oak mapping, and pest management to deliver the CFMP's vision.

# Tree Hub

"We are curating a library of tree data layers in LA County to facilitate access to current data from authoritative sources. This is a work in progress, and the site will continue to evolve as data layers and tree-related GIS resources are included and updated."

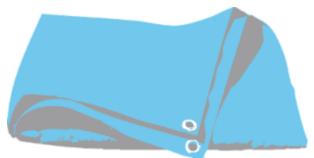
# **Tree Hub Website**





https://trees-lacounty.hub.arcgis.com/

# The Blanket and the Quilt



### The Blanket

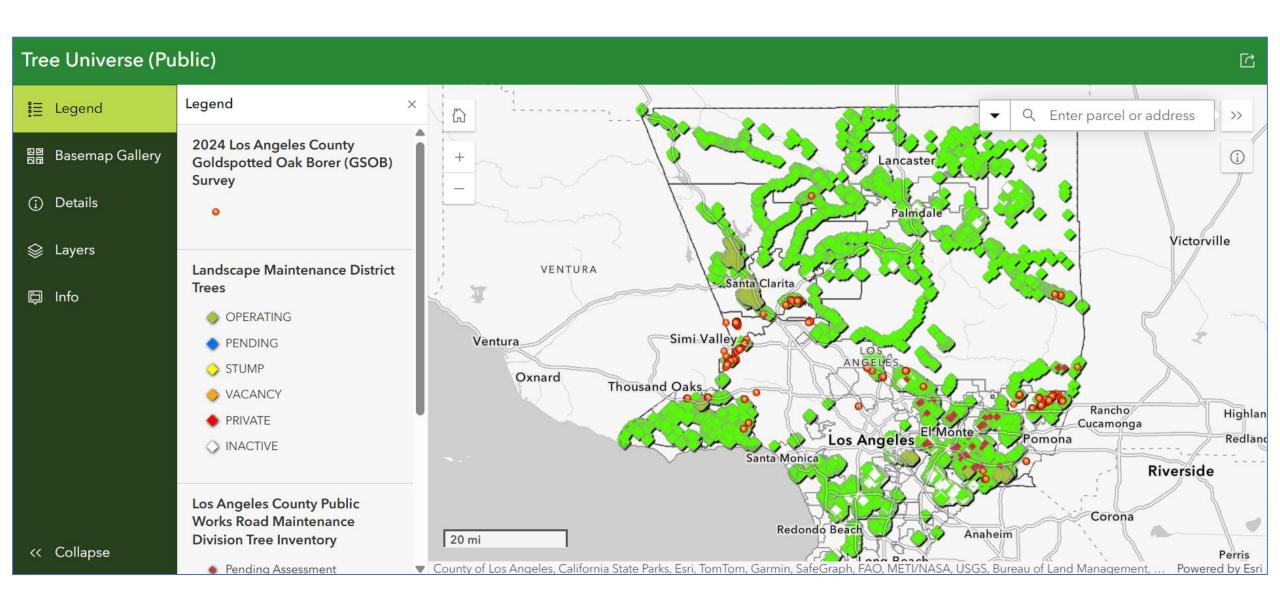
When completed, the Blanket will serve as a comprehensive tree inventory of all trees in LA County collected through remote sensing. It is developed from multi-spectral imagery, captured through the <u>LARIAC program</u>. The data will be parsed into attributes such as tree species and tree condition to provide a snapshot of County arboreal resources at a single point in time.



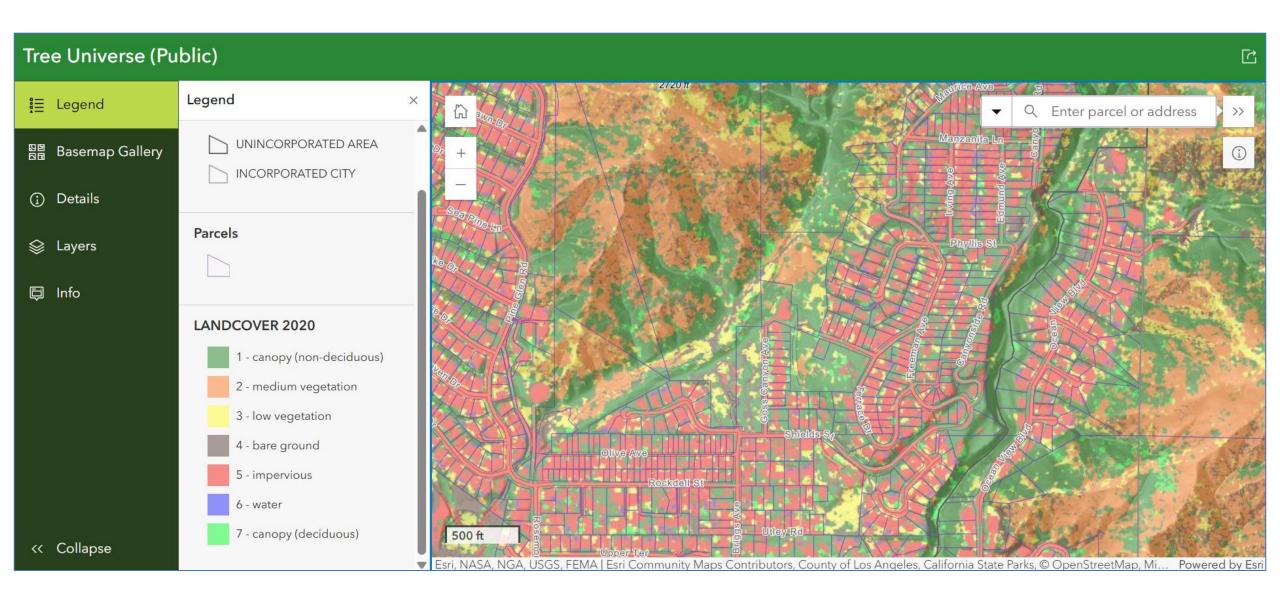
### **The Quilt**

The Quilt comprises an evolving collection of existing tree data and attributes by LA County departments in the course of managing trees. Data from the quilt are continuously updated and collected at different points in time. These data include private trees identified in the Planning permitting process, parkway trees maintained by Public Works, and park trees planted and maintained using the Oak Forests Special Fund. We also refer to the Quilt as the County's "Tree Universe."

# **Tree Universe**



# **Tree Universe**



# Oak Trees



Los Angeles County Tree Hub

Home

Oak Trees

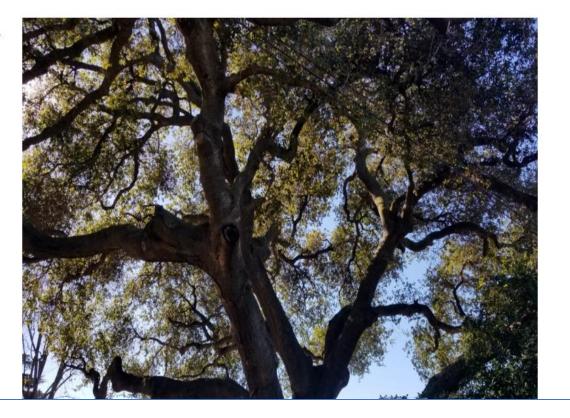
Data

**Tools & Resources** 

### Why Oak Trees?

Oaks provide an outsized contribution to the ecosystems where they grow. They provide food and shelter to thousands of species of plants, wildlife, and insects. They improve the air we breathe and the quality of water we drink. They hold water in our watersheds to keep the soil from drying out, recharge groundwater, help to stabilize soil and prevent erosion, lower the air and soil temperature, and provide cooling shade, while enhancing views and property values. Additionally, some species of oak have fire-resistant qualities and when maintained following guidelines from Los Angeles County Fire and Planning and may help to block embers from igniting structures.

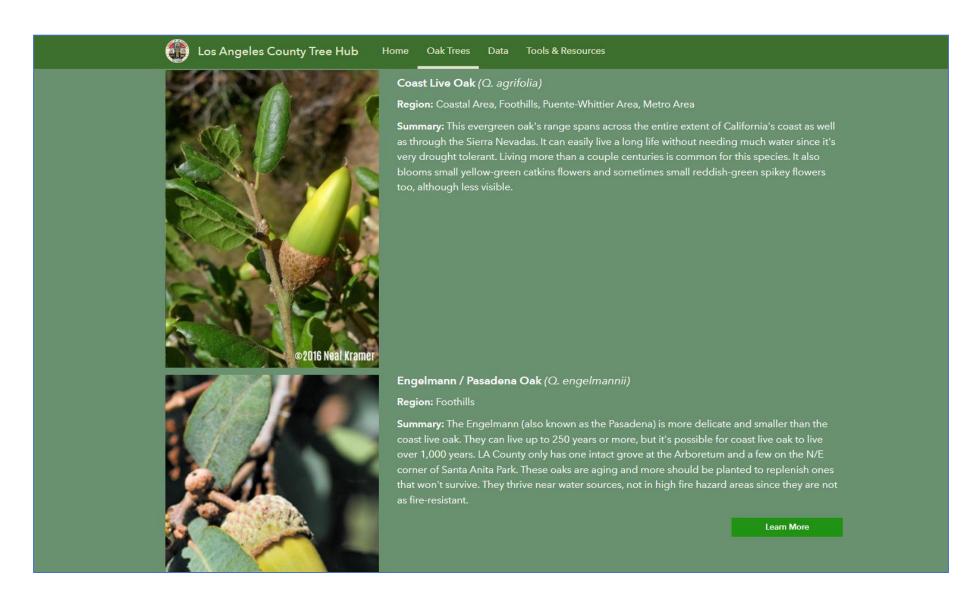
Oak trees are culturally significant for local Native American Tribes, including as a food source. LA County recognizes the importance of protecting California's oaks and other native trees, especially amid the threats of climate change, invasive pests, and development.







# Oak Trees



# Oak Trees



3

Los Angeles County Tree Hub

Home

Oak Trees

Data

**Tools & Resources** 

### Threats to Oaks

### Climate Change

Weather changes can add unexpected stress to trees.



Destruction from fires is a big issue, and the challenges for surviving trees post-fire

### Tree Removal

Even if still living, trees can be removed due to obstruction.

### ♠ Hazardous Waste

Hazards entering the environment post-fire presents challenges.

### Drought

Although oaks are very drought-resistant, extreme bouts of drought can be problematic.

### ♠ Development

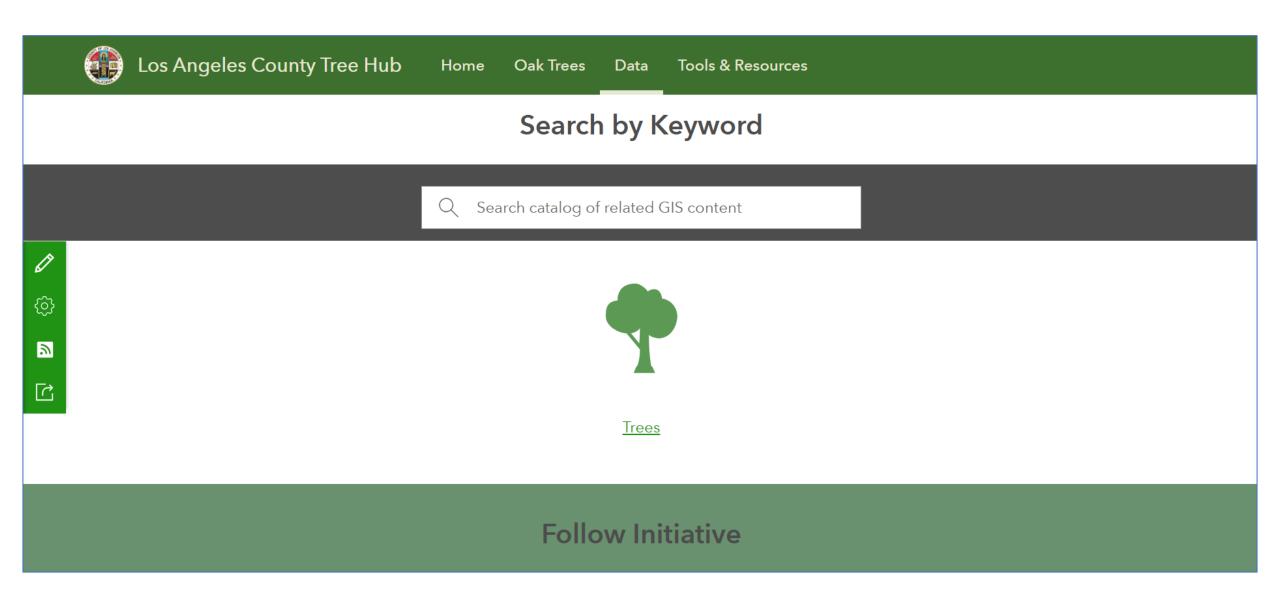
Arguably the most detrimental threat, development has been the main cause of oak destruction historically in Los Angeles County and could also be in the future.

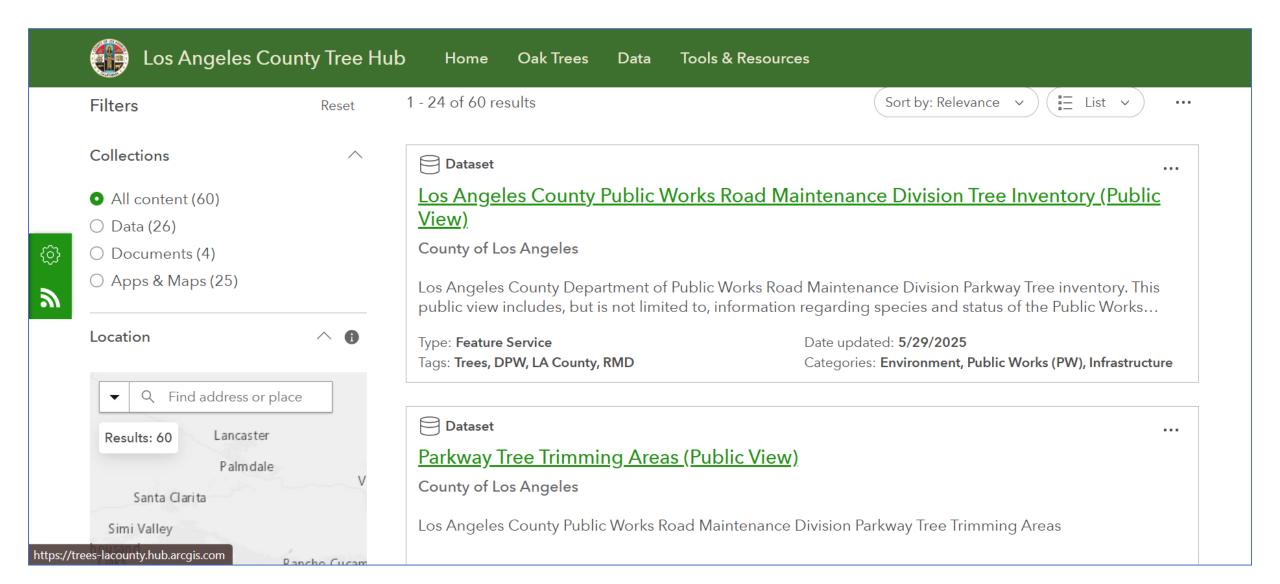
### **1** Invasive Pests

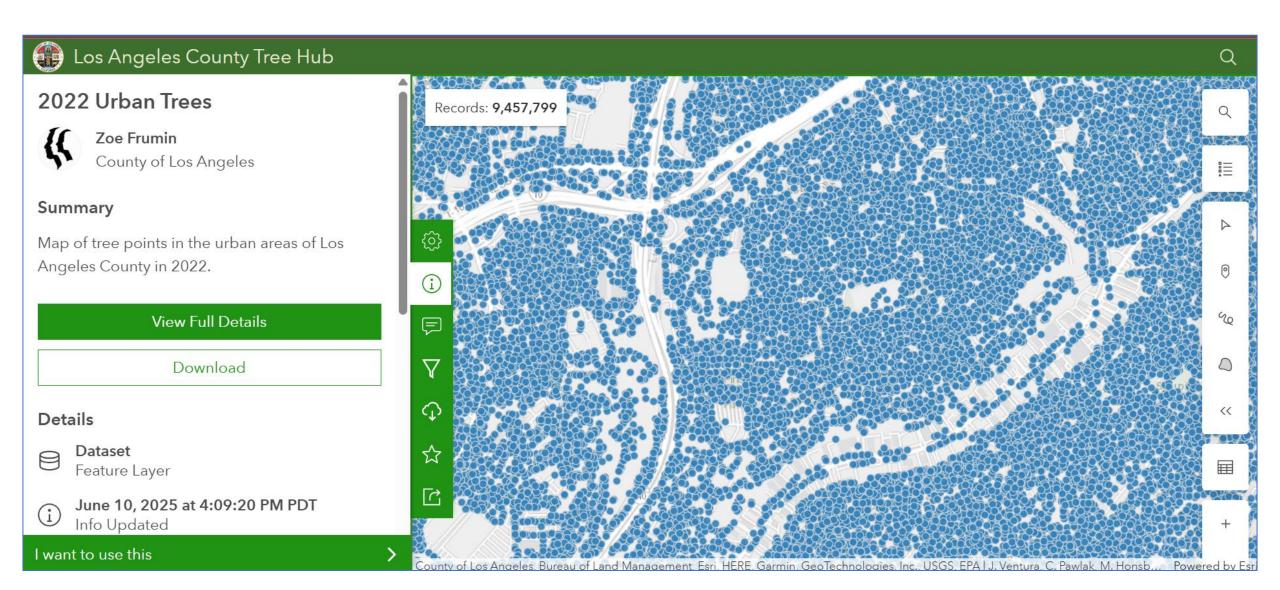
Non-native beetles such as the goldspotted oak borer and the shothole borer pose great new challenges in addition to existing native pests like moths.

Learn More











Los Angeles County Tree Hub

Home

Oak Trees

Data

**Tools & Resources** 

### 2022 Urban Trees

7oe Frumin

### Summary

Map of tree points in the urban areas of Los Angeles County in 2022.

This dataset of tree points in urban areas of Los Angeles County was created using imagery from 2022 by a team of researchers at the Urban Forest Ecosystems Institute at Cal Poly (UFEI). This map is based on NAIP imagery from 2022, processed by a convolutional neural network (CNN) which learned to detect trees from a collection of hand-annotated samples. The CNN takes NAIP imagery as input and outputs a confidence map indicating the locations of trees. The individual tree locations are found by local peak finding.

- Find more information about how these points were populated here: https://www.sciencedirect.com/science/article/pii/S1569843224002024
- Find more information about UFEI here: https://ufei.calpoly.edu/

This project was funded by CAL FIRE (award number: <u>8GB18415</u>) the US Forest Service (award number: <u>21-CS-11052021-201</u>)

J. Ventura, C. Pawlak, M. Honsberger, C. Gonsalves, J. Rice, N.L.R. Love, S. Han, V. Nguyen, K. Sugano, J. Doremus, G.A. Fricker, J. Yost, and M. Ritter, "Individual Tree Detection in Large-Scale

### Details



- June 10, 2025 at 4:09:20 PM PDT Info Updated
- June 9, 2025 at 3:34:32 PM PDT
  Data Updated
- June 9, 2025 at 3:18:57 PM PDT
  Published Date
- Records: 9,457,799
  View data table
- Public
  Anyone can see this content
- Custom License

  View license details













# **Tools and Resources**



Los Angeles County Tree Hub

California

Map

**Climate Trees** 

Home

Oak Trees

Data

Tools & Resources

4 of 20, Arranged Alphabetically

### **GIS Map Applications**









<u>California Climate Trees</u> <u>Map</u>

Highlights newly planted trees funded by California Climate...

Explore





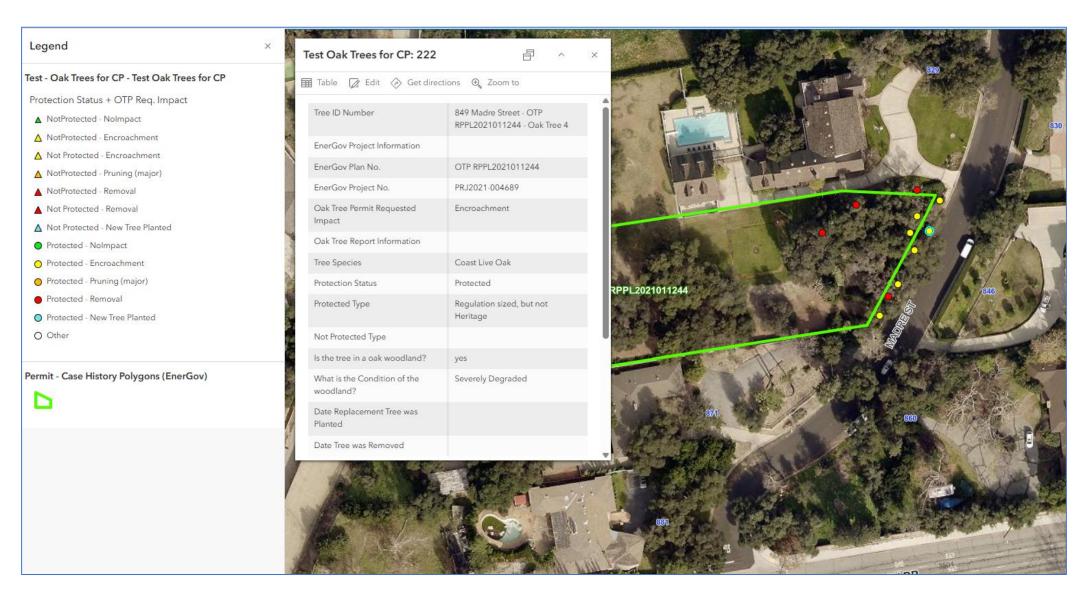


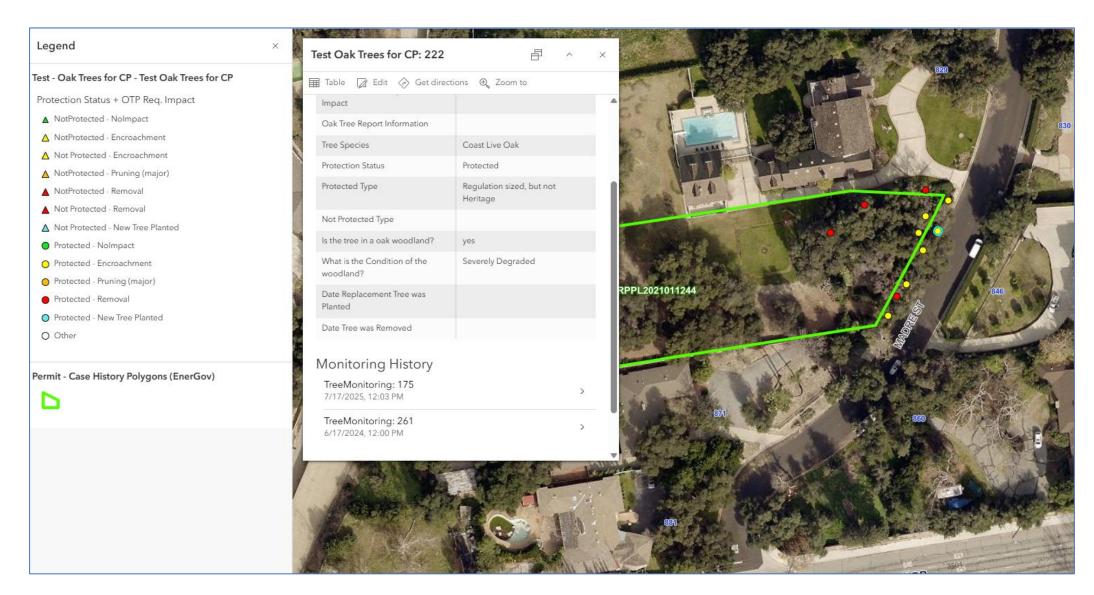
# **Collaborate with us!**

- Survey form embedded at the bottom of the Home page
- Let us know about any good data or GIS applications to put in here!

Collaborate with us!
Your input helps us make our resources even better. Do you have a suggestion for an important data set or application we should feature? Please share your ideas with us below.
Name*
Email*
Comments:
1000 %
Submit







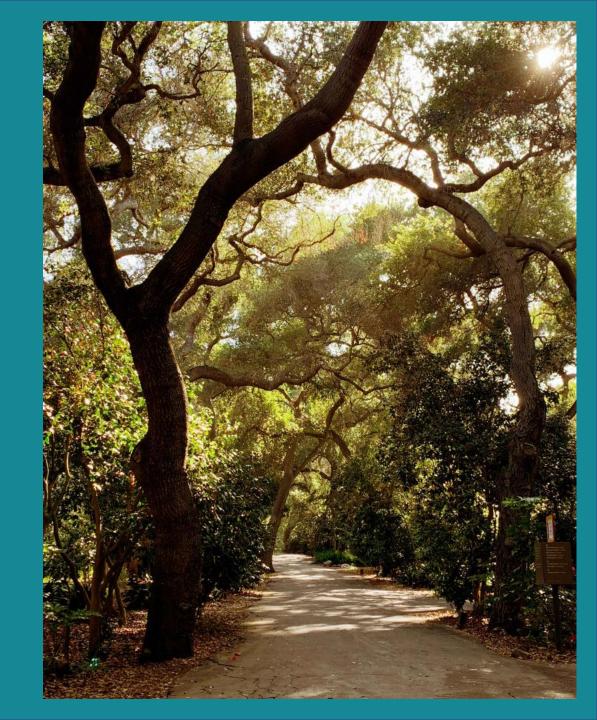




# Thank you!

Dan Hoffman, GISP
Principal GIS Analyst, L.A. County Planning
<a href="mailto:dhoffman@planning.lacounty.gov">dhoffman@planning.lacounty.gov</a>

https://trees-lacounty.hub.arcgis.com/



# RosiDagit Principal Conservation Biologist RCD SMM



# THANKS TO











- LA County Forestry
- LA County Dept of Regional Planning
- Supervisor Sheila Kuehl
- UC Cooperative Extension
- NPS and CA State Parks
- CalFire
- RCD of the Santa Monica Mountains
- Local Arborists
- Community Volunteers





### NASA DEVELOP Projects

January – March, 2017 September - December 2017

Santa Monica Mountains Ecological Forecasting I and II

Los Angeles
County Native
Tree Priority
Planting Plan
(2019)

Trees offer us the solution to nearly every problem facing humanity today.

They do so even when we can't or won't hear them.

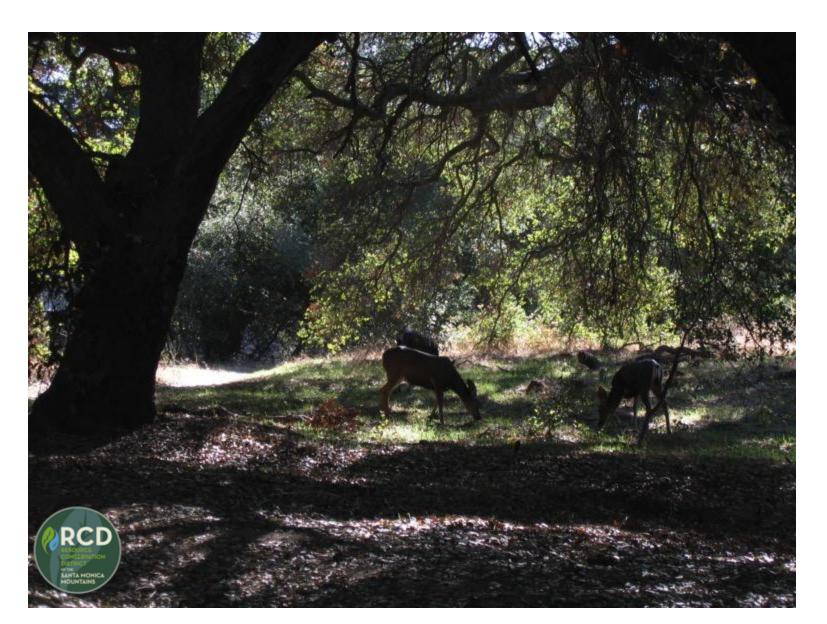
We once knew how to listen.

It is a skill we must remember.

If we strengthen those connections by planting trees, interacting with our forests and protecting our natural spaces, we can pause climate change long enough to have a fighting chance to mend our destructive ways.

Diana Beresford-Kroeger

# What can oak trees teach us?

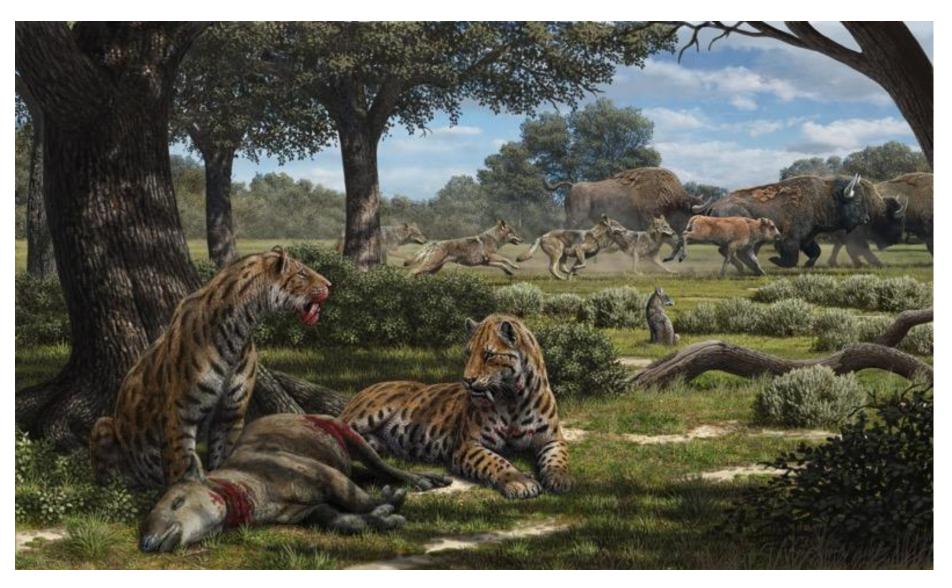


# Sense of Place



Photo thanks to John Luker

## Oaks define the southern CA landscape



Mural from La Brea Tar Pits

# Oak woodlands play a major role in mitigating effects of fire, flood, erosion, air pollution

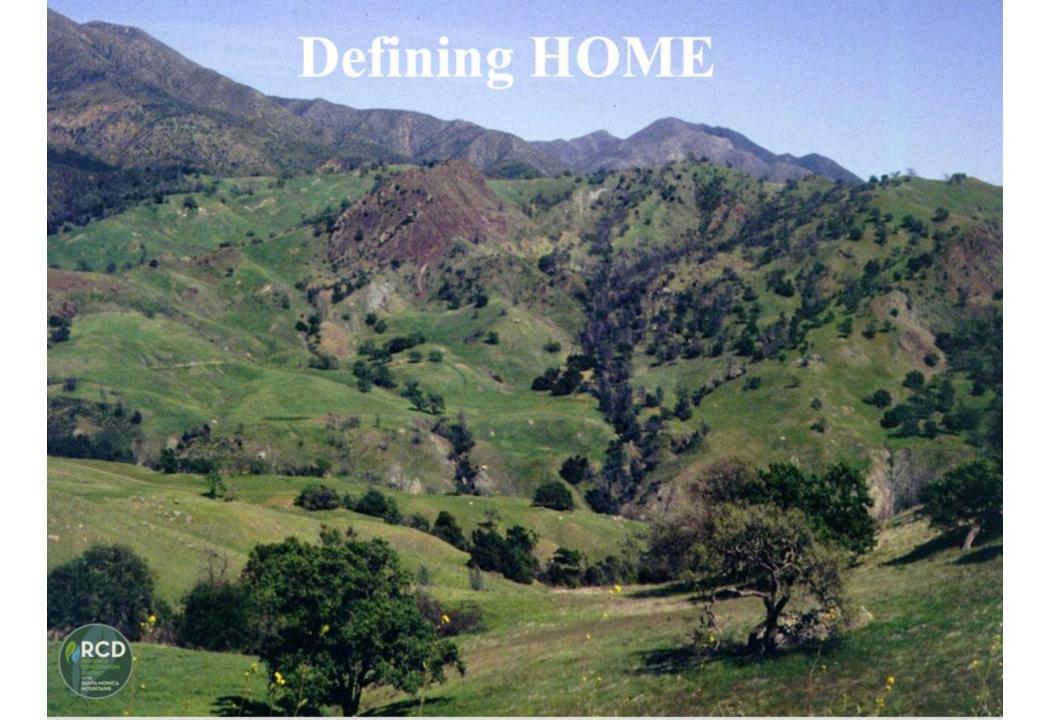




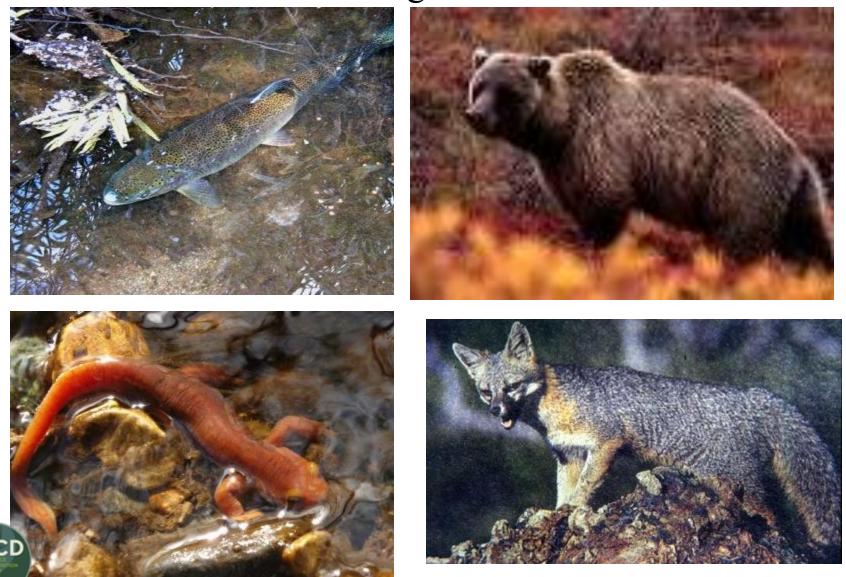




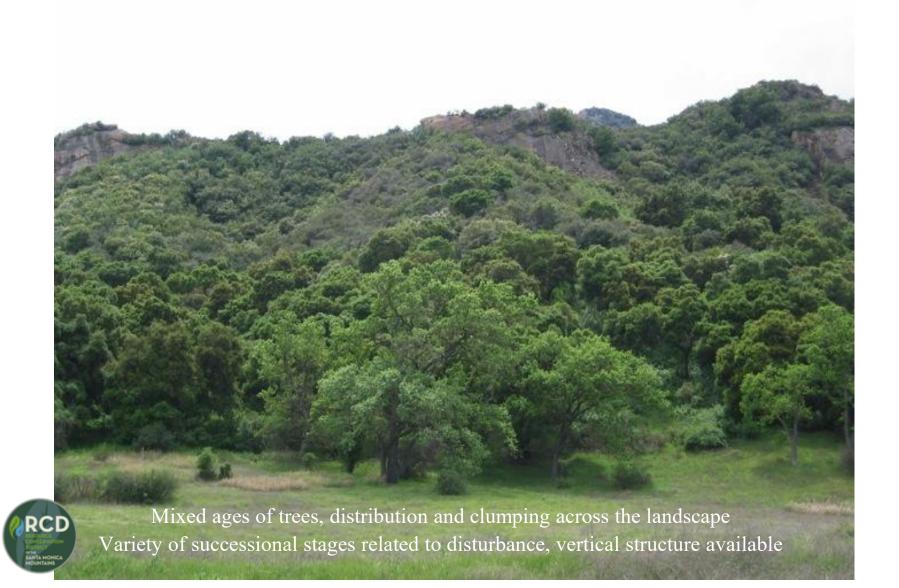




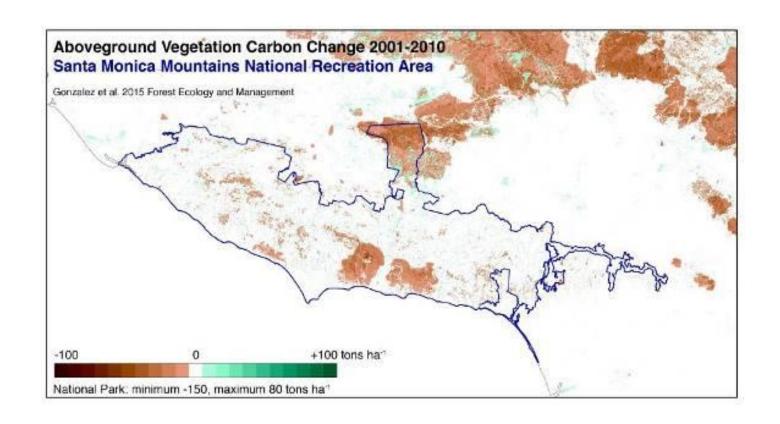
# Complex ecosystem with many species, including humans



# Oak woodlands provide many kinds of habitats Community and Collaboration



### Carbon Sequestration and Storage Values



# Persistence in spite of development



# Extreme Heat Days and Drought





Fried leaves 6-7 July 2018, 5-7 Sept 2020, 2-5 Sept 2024

# BAD BEETLES!!!!



Invasive shothole borer (ISHB)



Gold spotted oak borer (GSOB)



# Why plant oaks?

- Need to plant in the face of uncertain future climate, drought, wildfire, extreme temperatures, etc.
- Threats from bad beetles shouldn't restrict planting
- Oaks recruit in pulses demographics show that they are not keeping up
- We need not only trees, but specifically oaks

# LOS ANGELES COUNTY NATIVE TREE PRIORITY PLANTING PLAN (2019)

https://www.rcdsmm.org/wp-content/uploads/2019/12/Los-Angles-County-SMMNRA-FINAL-Native-Tree-Priority-Planting-Plan-12.13.19.pdf

Developed a conceptual framework to guide prioritizing where and what to plant in order to ensure that native trees persist into the future.

Acknowledges need for flexible, adaptive management and monitoring.

### Los Angeles County - Santa Monica Mountains Oak Woodland Areas



# Used remote sensing imagery and modeling to answer ecological questions Two methods: UAVSAR and AVIRIS

- UAVSAR is useful for sensing physical properties, and can be used to detect vegetation; it is available for 2010-2015
- AVIRIS is useful for spectral-based analysis of an image, but is only available for 2013-2016



AVIRIS on ER-2



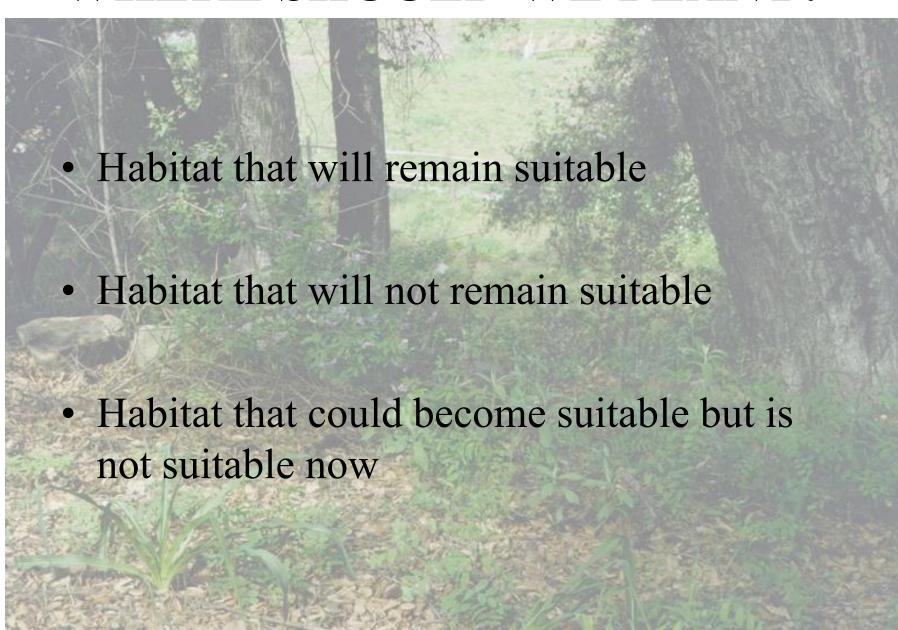
**UAVSAR** on Gulfstream III

# Decision Analysis Guiding Site Selection

General guidelines for decision-making are to:

- Increase redundancy and buffers to spread risk;
- Manage for asynchrony and use establishment phase to reset succession (i.e. disturbances can be triggers for planting new species);
- Use disturbances and diebacks due to drought, beetles, or fire to promote diverse age classes, species mixes and genetic diversity;
- Promote connected landscapes to promote dispersal and migration.

### WHERE SHOULD WE PLANT?



# WHERE SHOULD WE PLANT?

- Current distribution based on establishment conditions from up to 100 years ago!
- How do we ensure that trees we plant survive 100 years into the future?
- What environmental constraints should we be using to guide our planting location selection?
- How might assisted migration be safely implemented?

## More Considerations.....

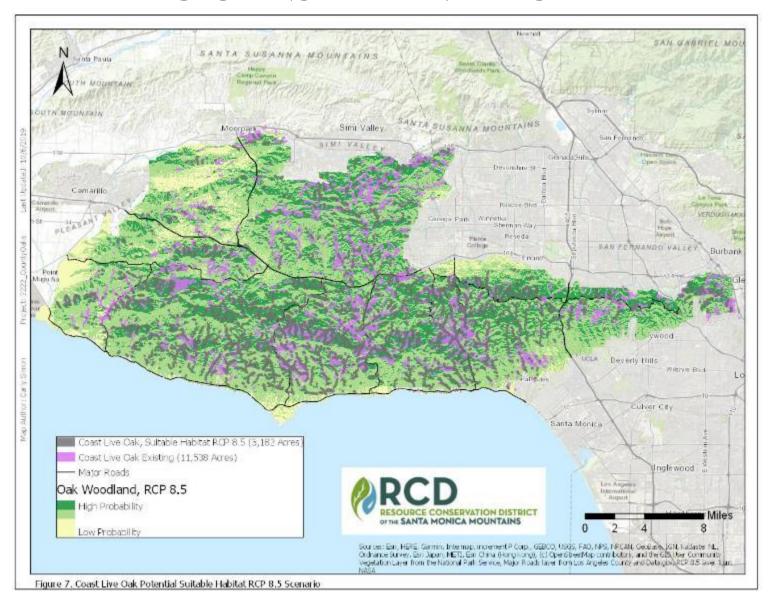
### • Prioritize sites:

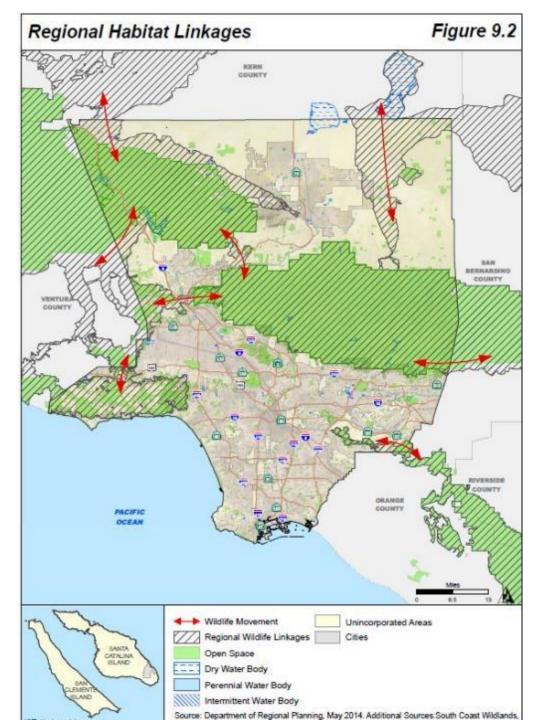
- that have been impacted by disturbance (ex: fire, pests, drought)
- that have been identified in other models as no longer suitable to the existing vegetation type
- based on connectivity
- identify sites that are more buffered against disturbance

### Treatments mimic, assist or enable ongoing adaptive processes:

- seed dispersal and migration
- changes in species dominance and community composition
- changing disturbance regimes.
- Encourage gradual adaptation and transition; mimic succession

# COAST LIVE OAK





Support restoration of Wildlife linkages

**THINK BIG!** 



# Wildfire recovery and safety planting

• Restore areas burned in the Woolsey Fire (2018), Palisades and Eaton Fires (2025)

• Identify areas where planting could reduce ember transfer

• Replace flammable trees with less flammable natives along the wildland/urban interface

# How you can help!





# Plant for the Future!





# Early Detection Visual Surveys



- Help us be eyes on the ground, report problems!

For more information:

www.pshb.org

www.gsob.org

http://ucanr.edu/sites/socalo
akpests/



### FIREWOOD SPREADS PESTS



- Know where your firewood comes from
  - Keep it local
  - Educate others

# Working together

- Local Native Plant Society Chapters
- Firewise Landscaping groups
- Master Gardener groups
- National, State and Regional Park agencies
- · NGO's

RCI

• Global Conservation Consortium for Oak led by Morton Arboretum



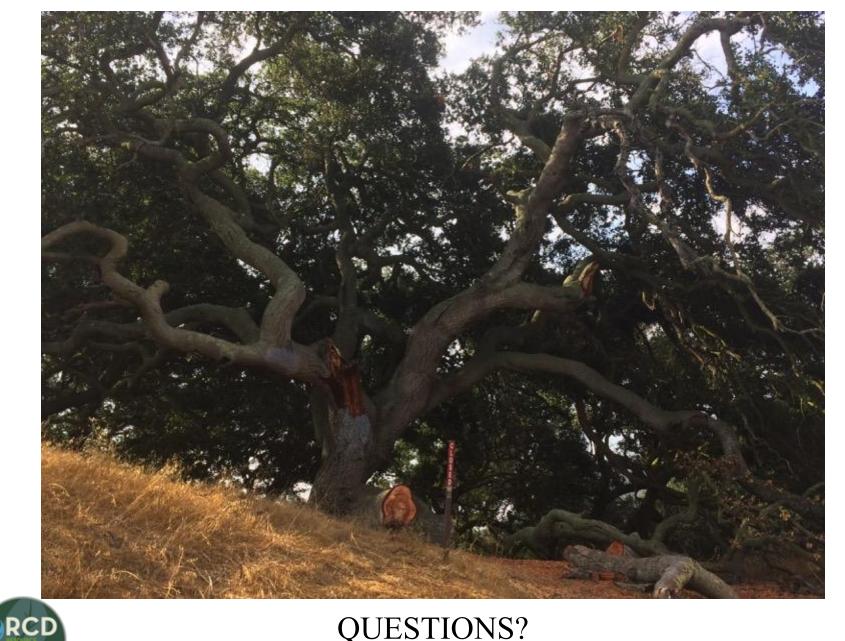


People create landscapes that reflect their morality, humanity and culture, and these landscapes then in turn, determine our fate.

Sam Broder 1991

# **Growing HOPE**





QUESTIONS? Contact rdagit@rcdsmm.org

# Mark Herwick, AlcP Supervising Planner

# The Planning Perspective

- Guiding development with multiple objectives and viewpoints to consider and reconcile.
- Natural processes: ecological services, mitigation of climate change, wildlife-urban interface, weather and storms.
- Social forces: community character and history, cultural and aesthetic values, acceleration of climate change, and politics.
- Balance between societal development needs and the benefits provided by the natural environment.
- Living among oaks rather than at odds with oaks.



# Discussion and Q&A Submit your questions in the Chat or Q&A



# **CM** credit instructions

Log your CM here:

https://www.planning.org/events/eventsingle/9315051/

Links will be emailed to all participants.



