

**San Gabriel Valley**

**Angeles National Forest**

**Antelope Valley**



**FIRE SAFE  
FOOTHILLS**

**∞ORE**

**Lessons Learned:  
Wildfire Resilience**

**Equity**

**Resilience**

**Collaboration**

# Agenda

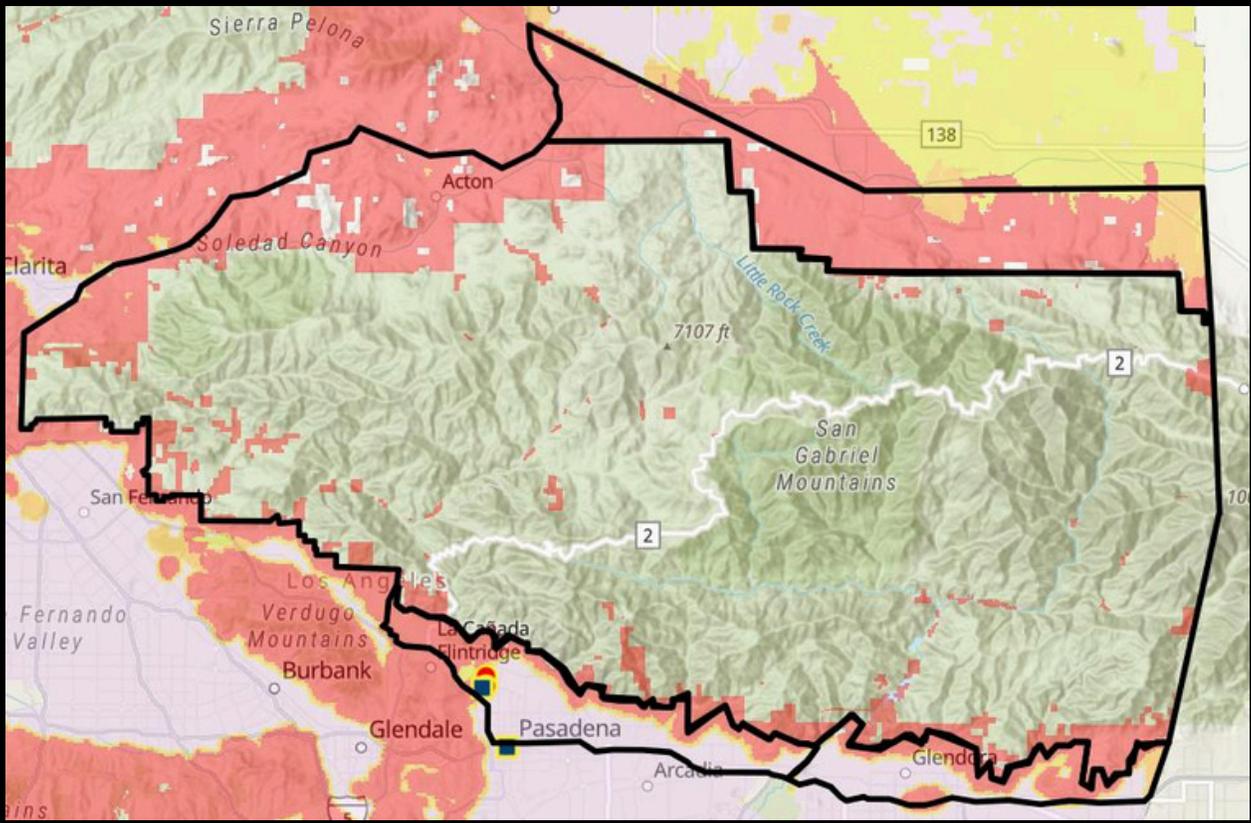
Personnel Introductions

Community Capital & Complicated Governance Landscape

Affordable Home Hardening

Case Study: Palisades Fire

# Our Team



**Kate Buckwald**  
Program Manager  
Antelope Valley &  
Angeles National  
Forest



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Program  
Manager  
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Area Manager  
Climate Resilience  
& Disaster  
Preparedness

# **Community Capital within a Complicated Governance Landscape**

# Community Capital & Artificial Scarcity

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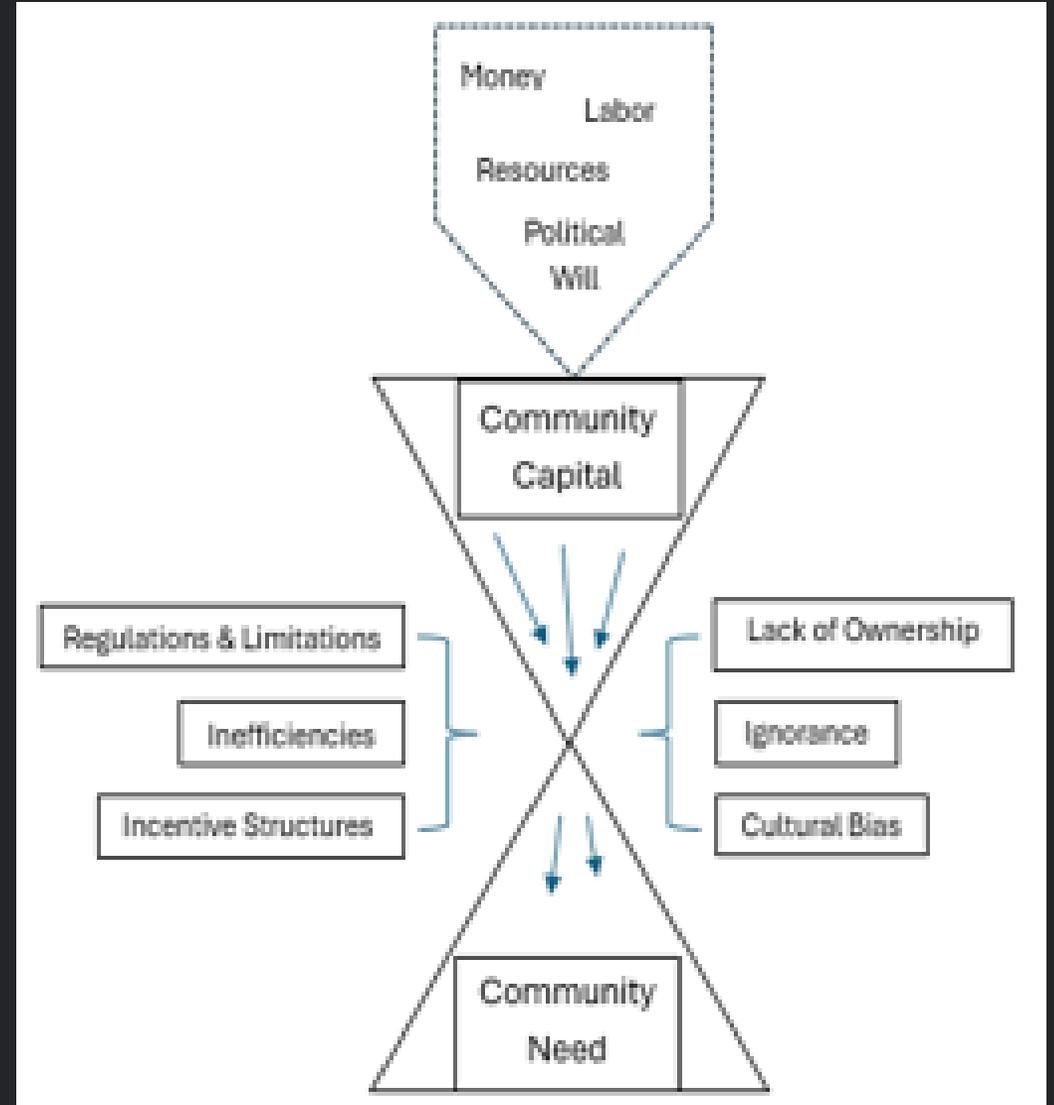


There is no real shortage of community capital (food, clothing, money, etc.) - just an inability to match need with production and distribution.

Crises exacerbate Artificial Scarcity despite the influx of increased community capital.

Therefore, what is needed is comprehensive planning & coordination.

This requires an “all of community approach” that leverages each sector’s strengths and builds a thriving civic ecosystem.”



## Executive Types

“Strong Mayor”: elected executive

Council-Manager: Council appoints a public administration professional (1/3 of all CA cities)

## Service Types

Full Service: municipality provides in-house emergency services

Contract: municipality pays for coverage from County Fire and Sheriff (Common for cities under 100,000)

## Frontline Effects

Strong Mayors operate more in tandem with public opinion, more “now focused”

Managers prioritize what their boss (the Council) think is important.

Small cities want/need to be prepared, but don’t have the capacity

## **For Non-Profit Partners**

**Leverage outreach to specific stakeholders within small cities - managers and community liaisons - with specific ways you can expand their capacity for little to no cost.**

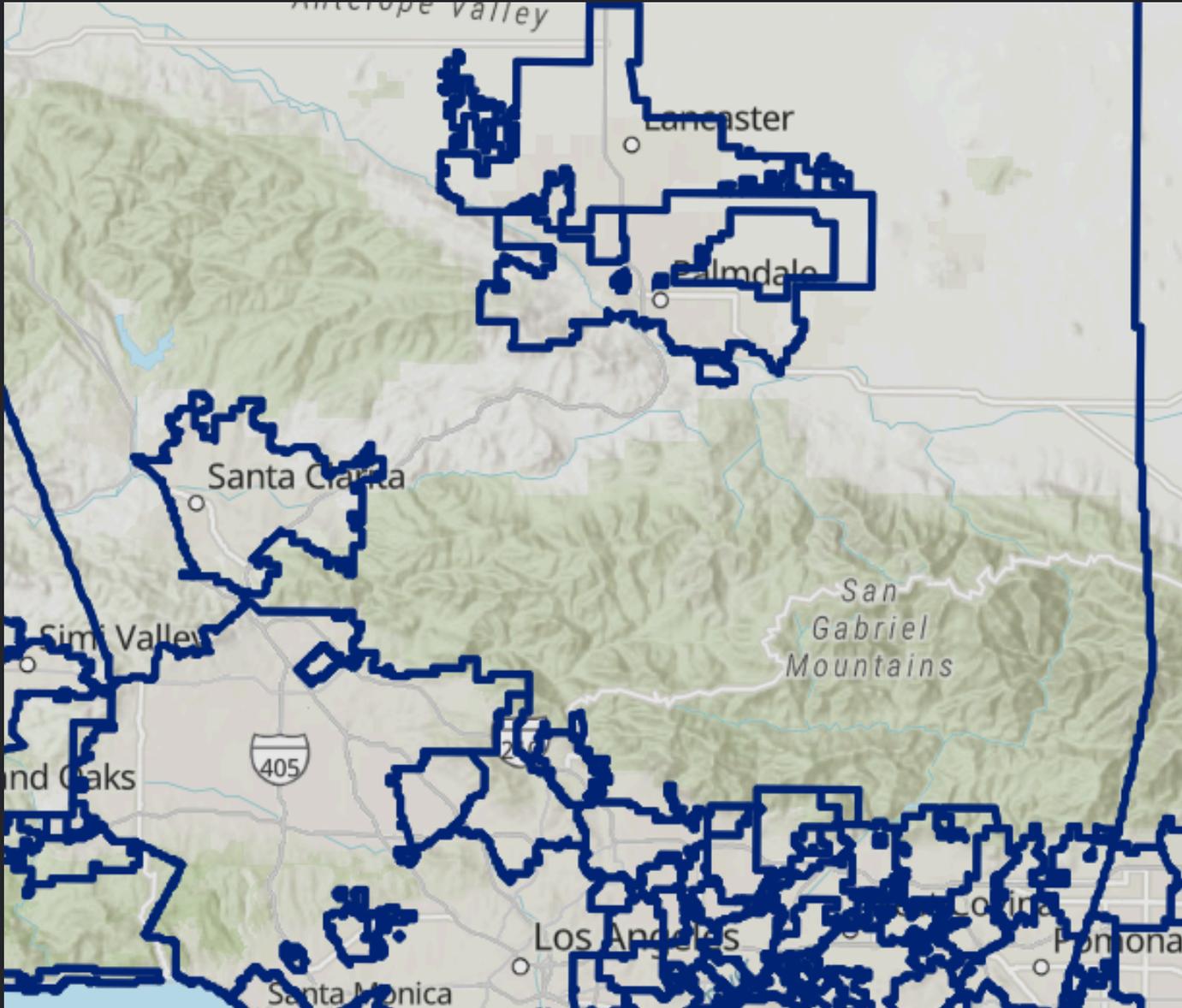
WHILE

Large cities can be overwhelmed with constituent needs despite their scale

# Complicated Planning & Governance

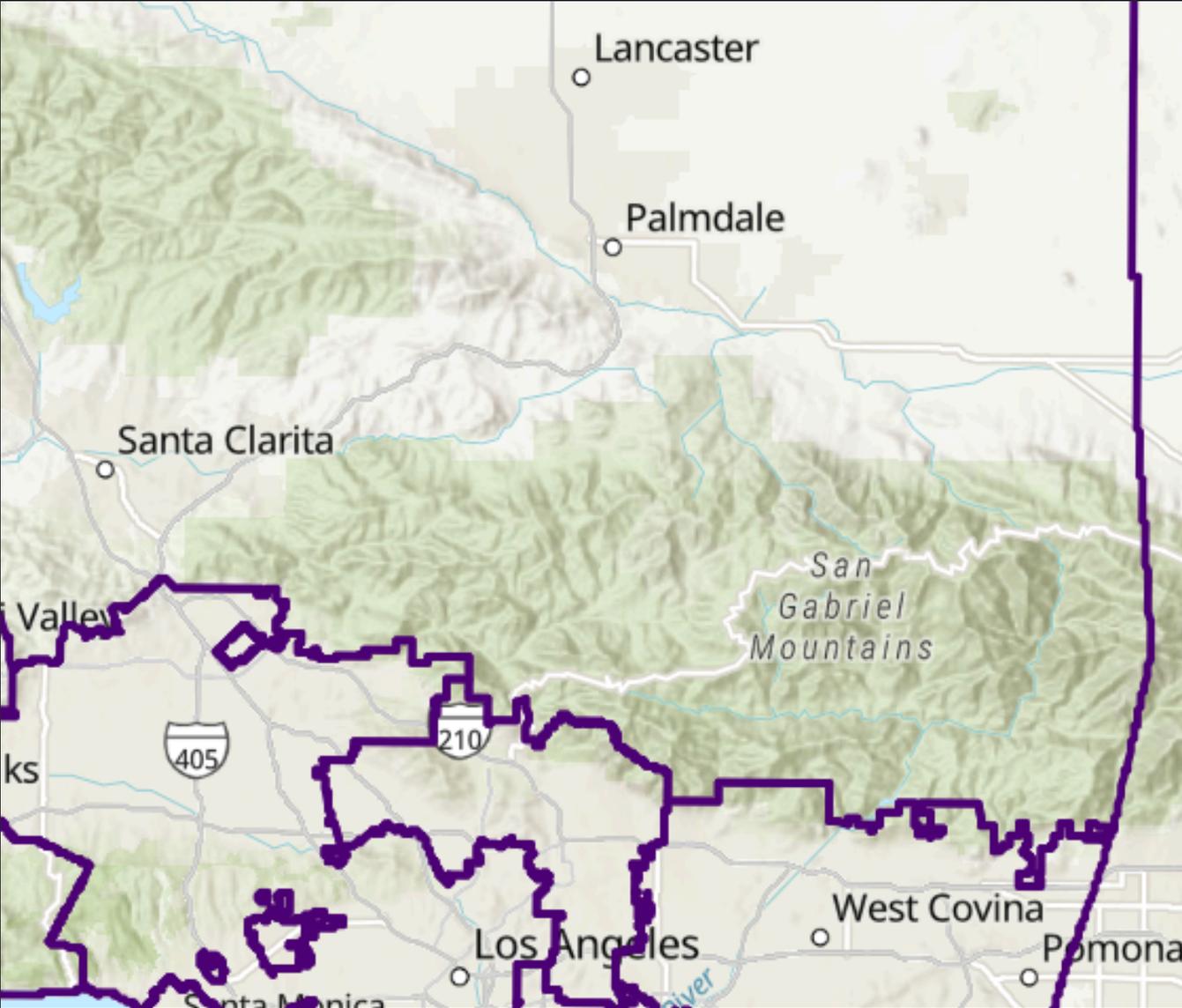
Why Stakeholder Analysis is Important

# LA County City Boundaries



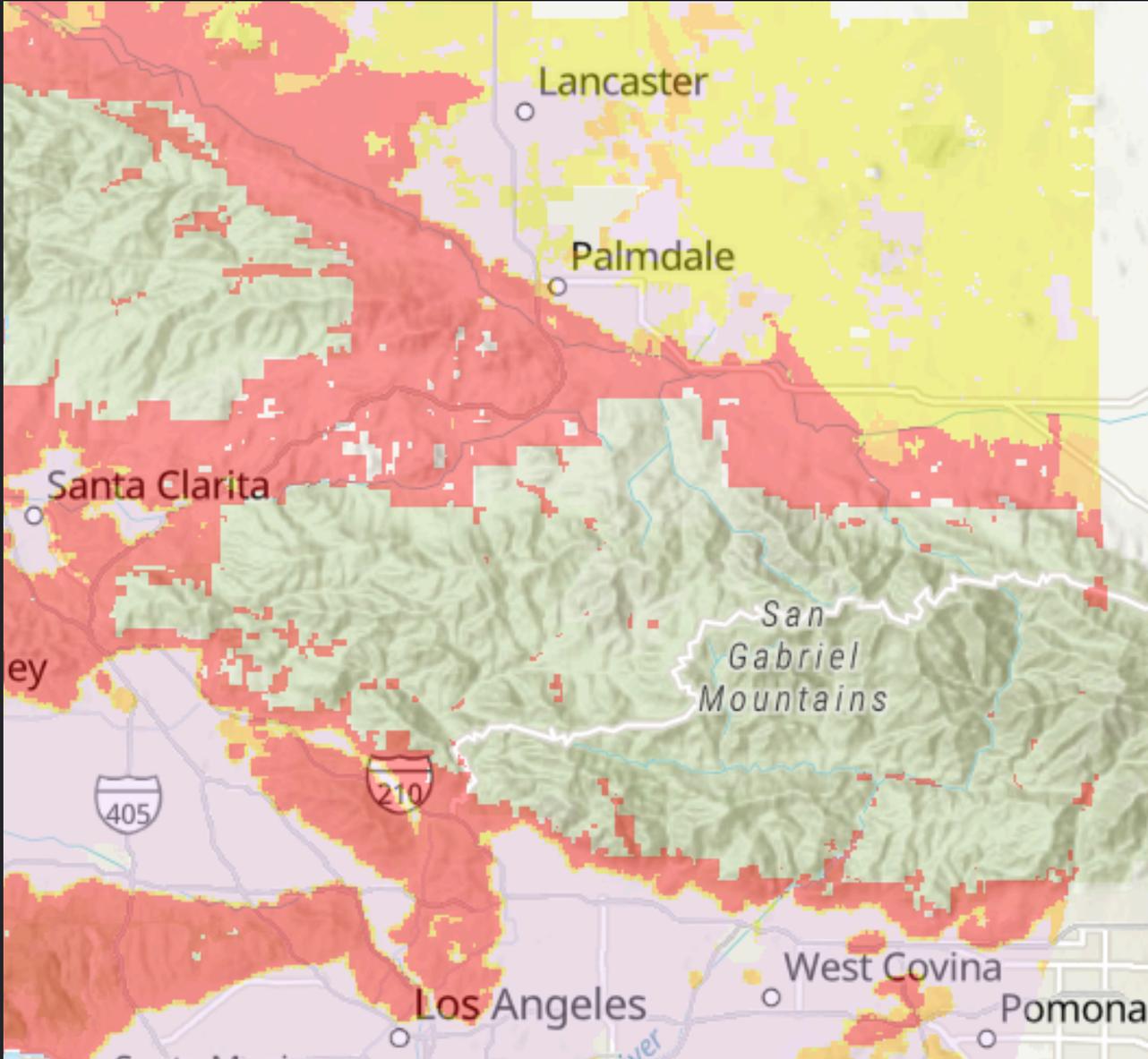
Do these boundaries enable unified response to a shared threat?

# Disaster Management Areas



How can organizations support Disaster Management Area Coordinators?

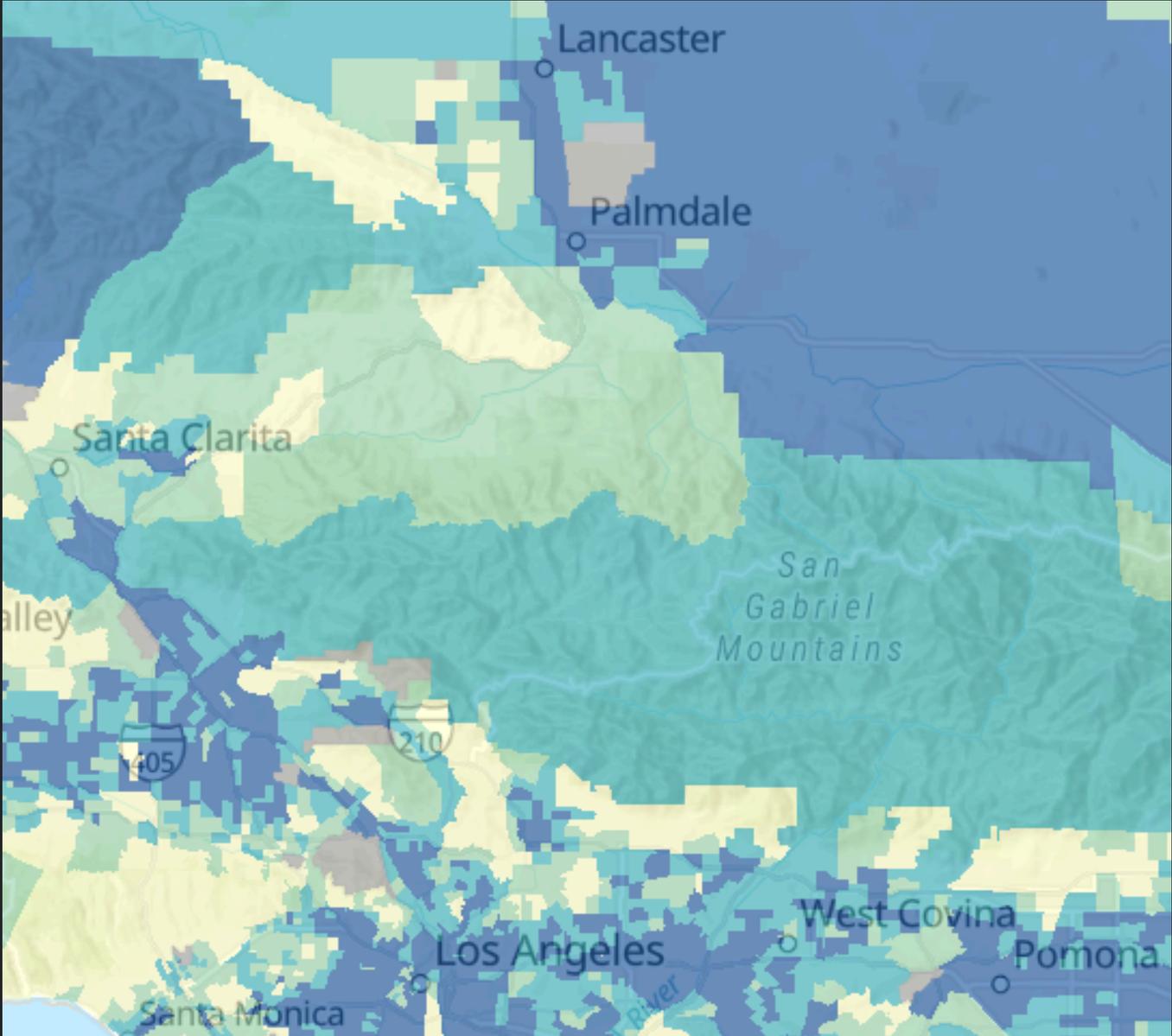
# CalFire Fire Hazard Severity Zone Map



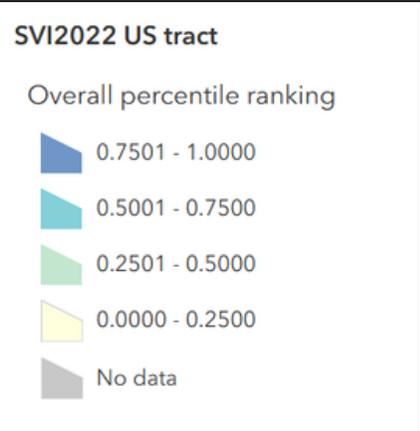
If we are entering an era of extreme AND persistent risk, how should that be reflected in non-profit and governmental programming?



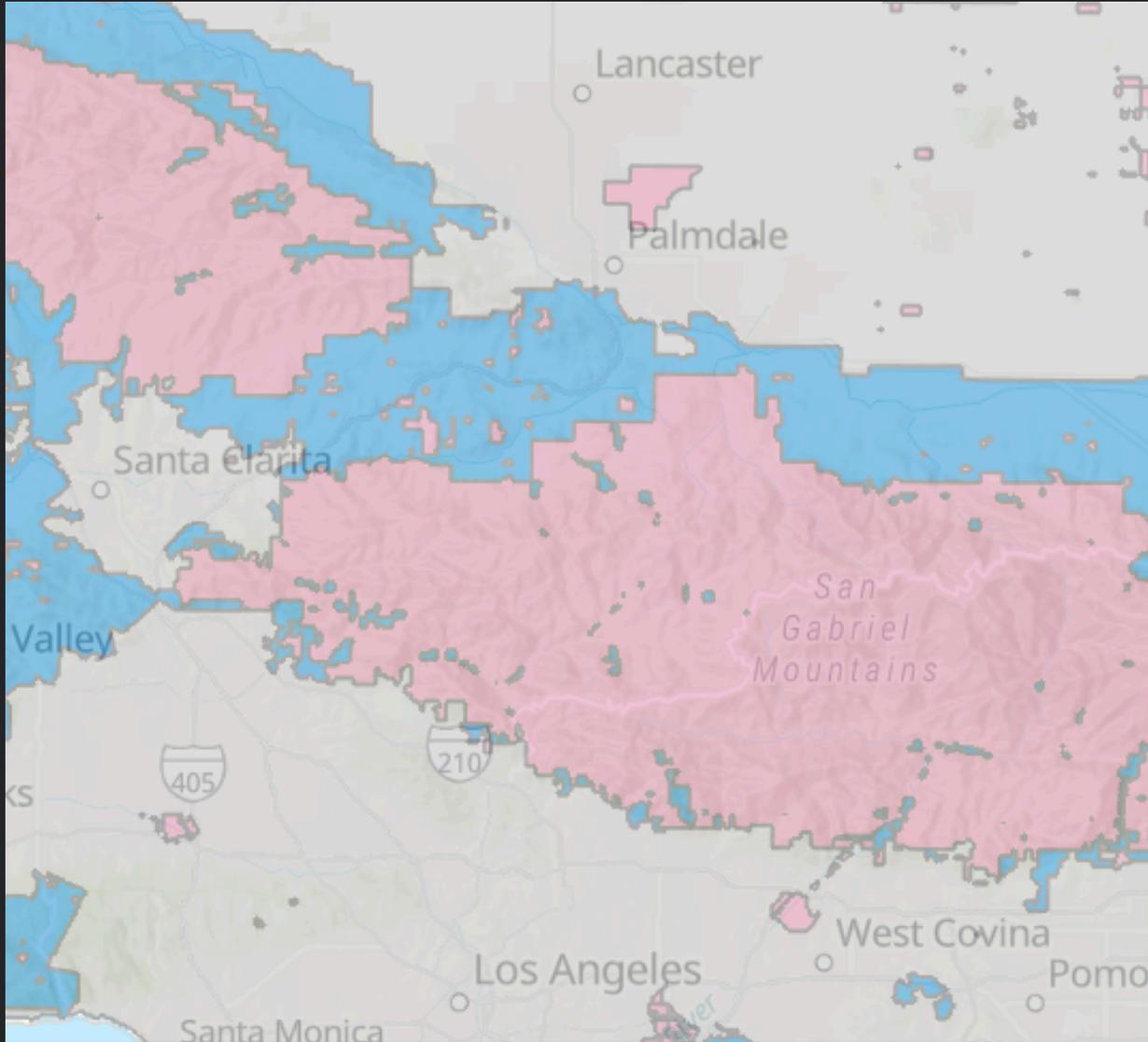
# Social Vulnerability Index 2022



Do the previous jurisdictional boundaries support equitable preparedness?



# Fire Responsibility Area

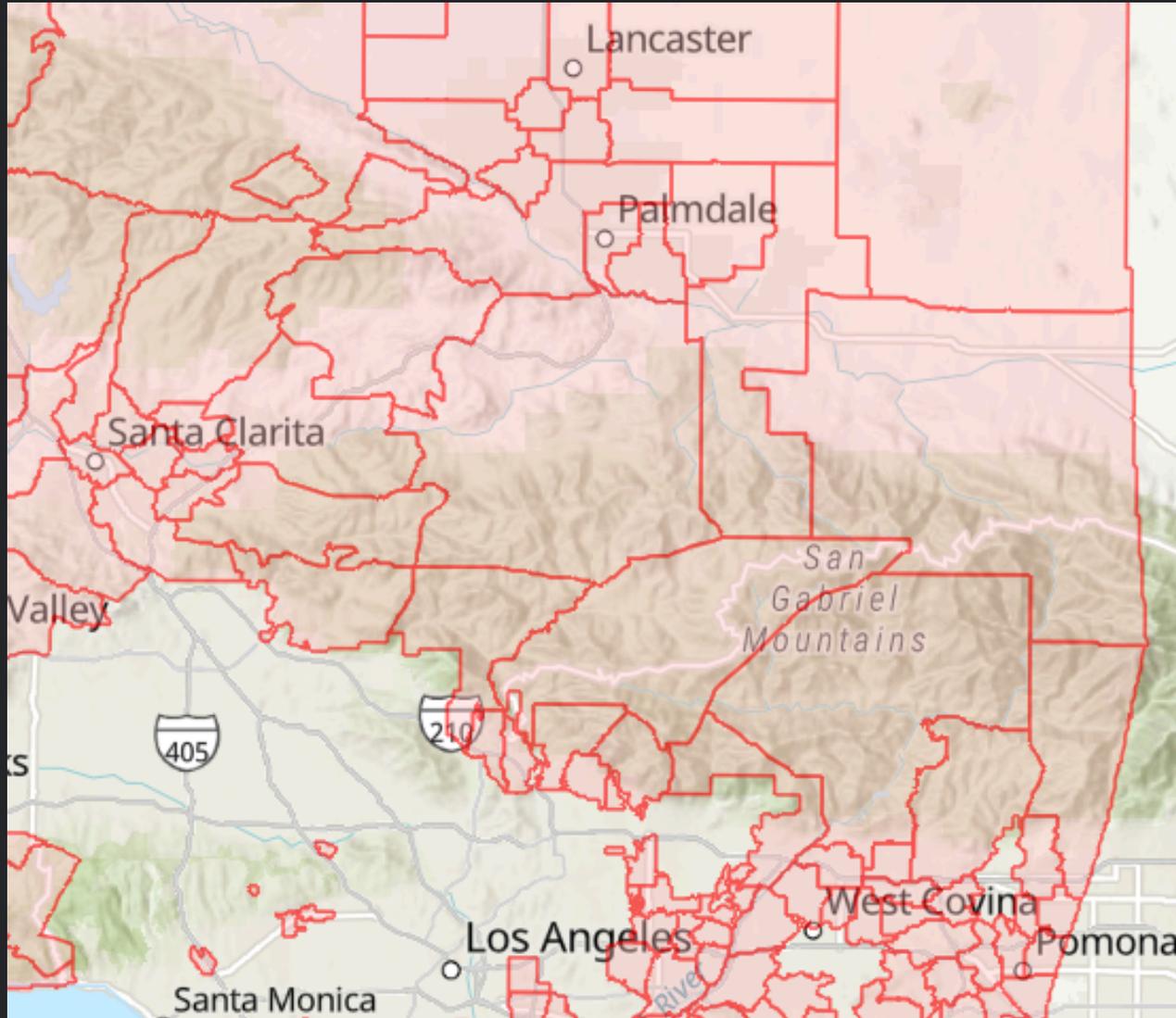


What methods or mechanisms can governments use to unify response? And how can non-profits support that “connective tissue”?

## Fire Responsibility Area

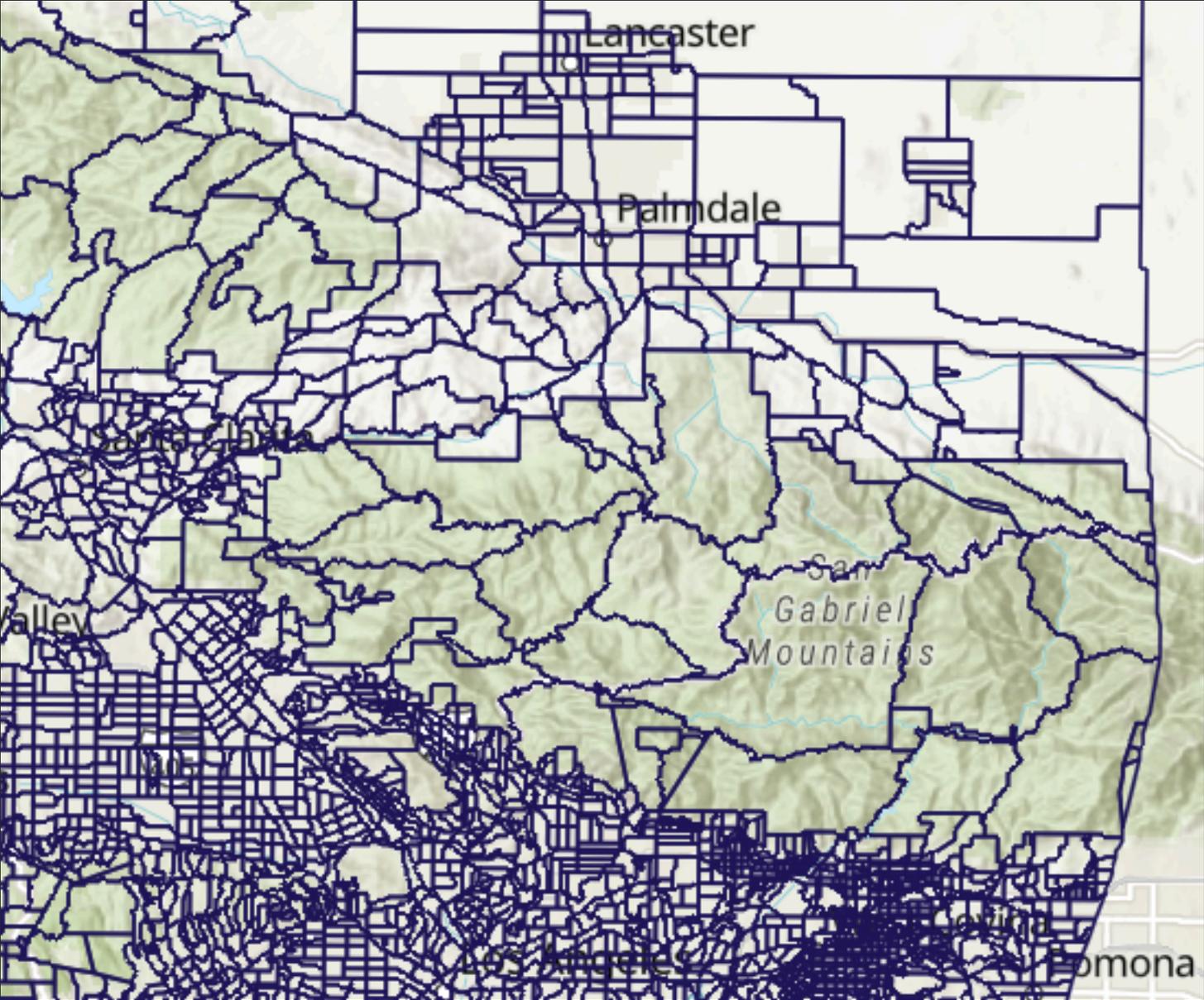
-  Federal Responsibility Area (FRA)
-  State Responsibility Area (SRA)
-  Local Responsibility Area (LRA)

# LACoFD Fire Station Boundaries



What are some challenges facing County emergency services support for unincorporated areas? How can non-profits fill the gap?

# Genasys Alert Warning Areas



How can alert systems be improved for future crises?

# Complicated Communication Systems

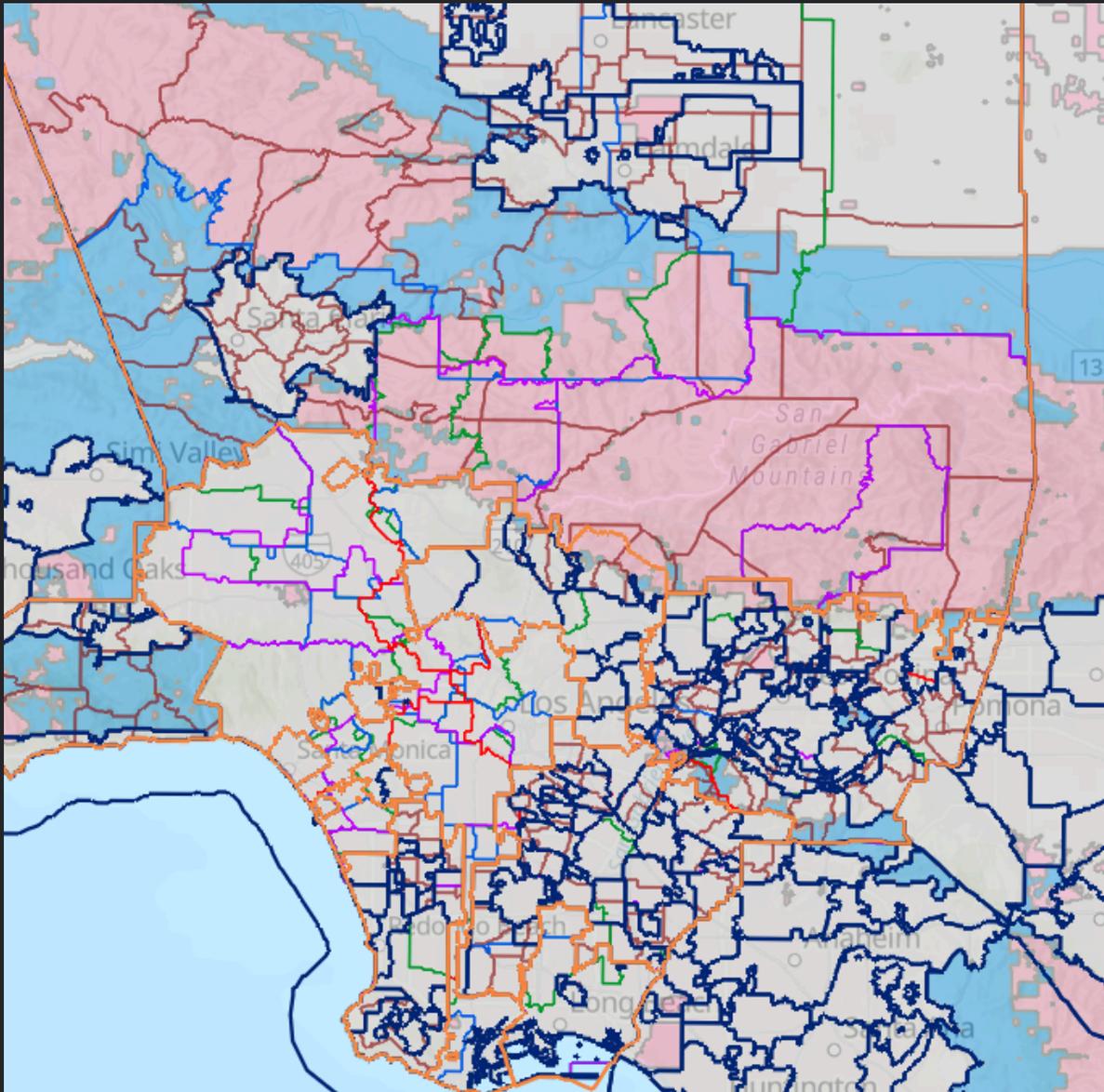
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Name	City/ Region	Name	City/ Region
<a href="#"><u>Alert LCF</u></a>	La Canada Flintridge	<a href="#"><u>Rave Mobile Safety-City of Glendora</u></a>	Glendora
<a href="#"><u>Alert LA County</u></a>	Altadena	<a href="#"><u>Rave Mobile Alerts</u></a>	San Dimas
<a href="#"><u>PLEAS</u></a>	Pasadena	<a href="#"><u>Nixle.com</u></a>	La Verne
<a href="#"><u>Nixle.com</u></a>	Sierra Madre	<a href="#"><u>Alert LA County</u></a>	LA County
<a href="#"><u>Alert Arcadia</u></a>	Arcadia		
<a href="#"><u>Nixle.com</u></a>	Monrovia	<a href="#"><u>Watcduty</u></a>	National
<a href="#"><u>Everbridge</u></a>	Bradbury		
<a href="#"><u>Nixle.com</u></a>	Duarte	<a href="#"><u>Myshake</u></a>	California, Oregon, and Washington
<a href="#"><u>Notify Me</u></a>	Azusa	<a href="#"><u>Genasys PROTECT</u></a>	Website and App' Map views, warnings and alerts

Types	Functions
Wireless Emergency Alerts (WEAs)	Text like messages
Social Media	County, city, and government entity posts
Public Broadcasting Service Warning, Alert, and Response Network (PBS WARN)	Can be used by FEMA to deliver messages to public television stations
Tactical Methods	LACoFD and LASD vehicle sirens, door knock

# Integrated Governance and Fire Response Overlay



- Supervisory District (Red)
- State Senate District (Purple)
- State Assembly District (Blue)
- US Congressional District (Green)
- LACoFD Fire Station Boundaries (Maroon)
- LA County City Boundaries (Dark blue)
- Disaster Management Areas (Orange)

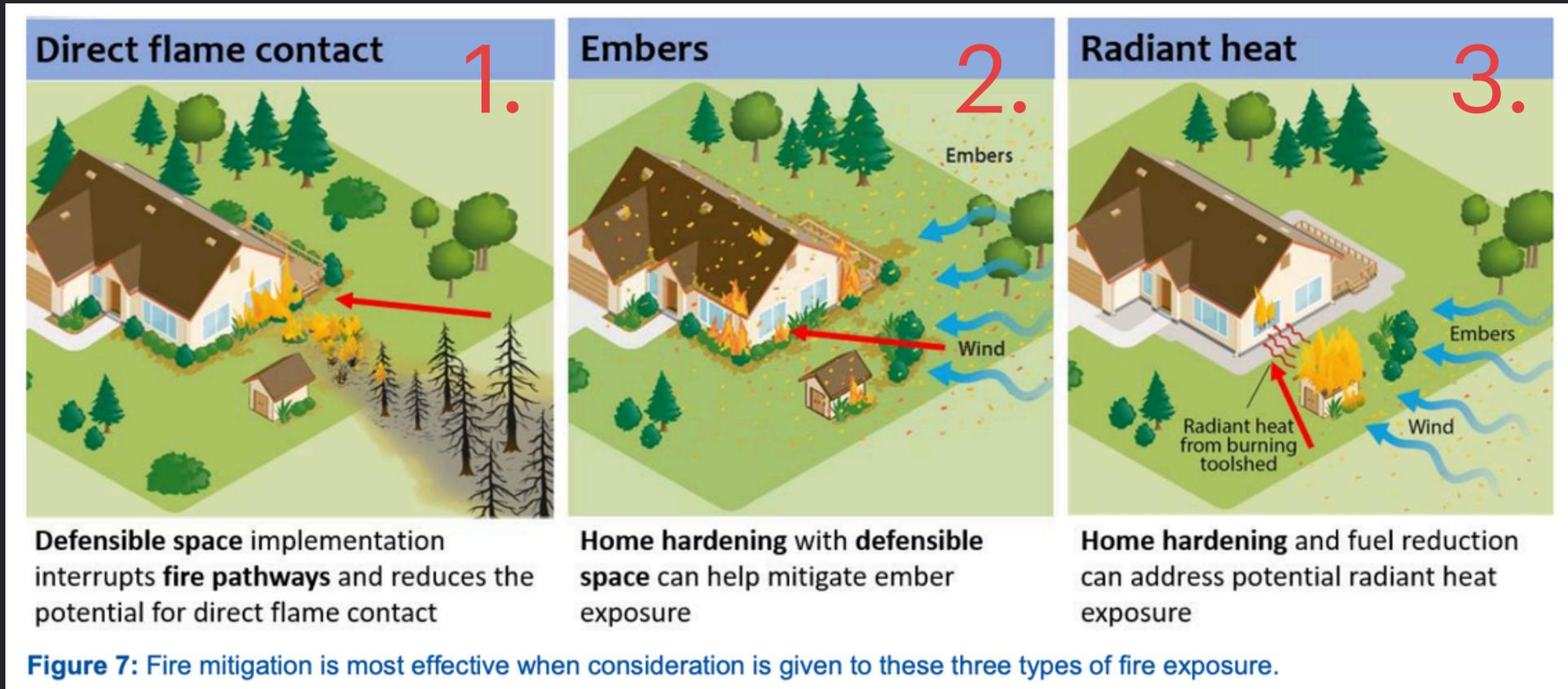


1. What local municipalities have you seen be proactive in emergency management? How were they successful?
2. What is one way your non-profit has supported local government? Or how has your government incorporated non-profits?
3. Does your organization have its own continuity plan? Does it have SOPs for how to quickly transition to disaster response / "Gray Sky" operations as part of a larger community response? Does it rehearse this SOP with partners?

# Home Hardening

# Structure Vulnerabilities During Wildfires

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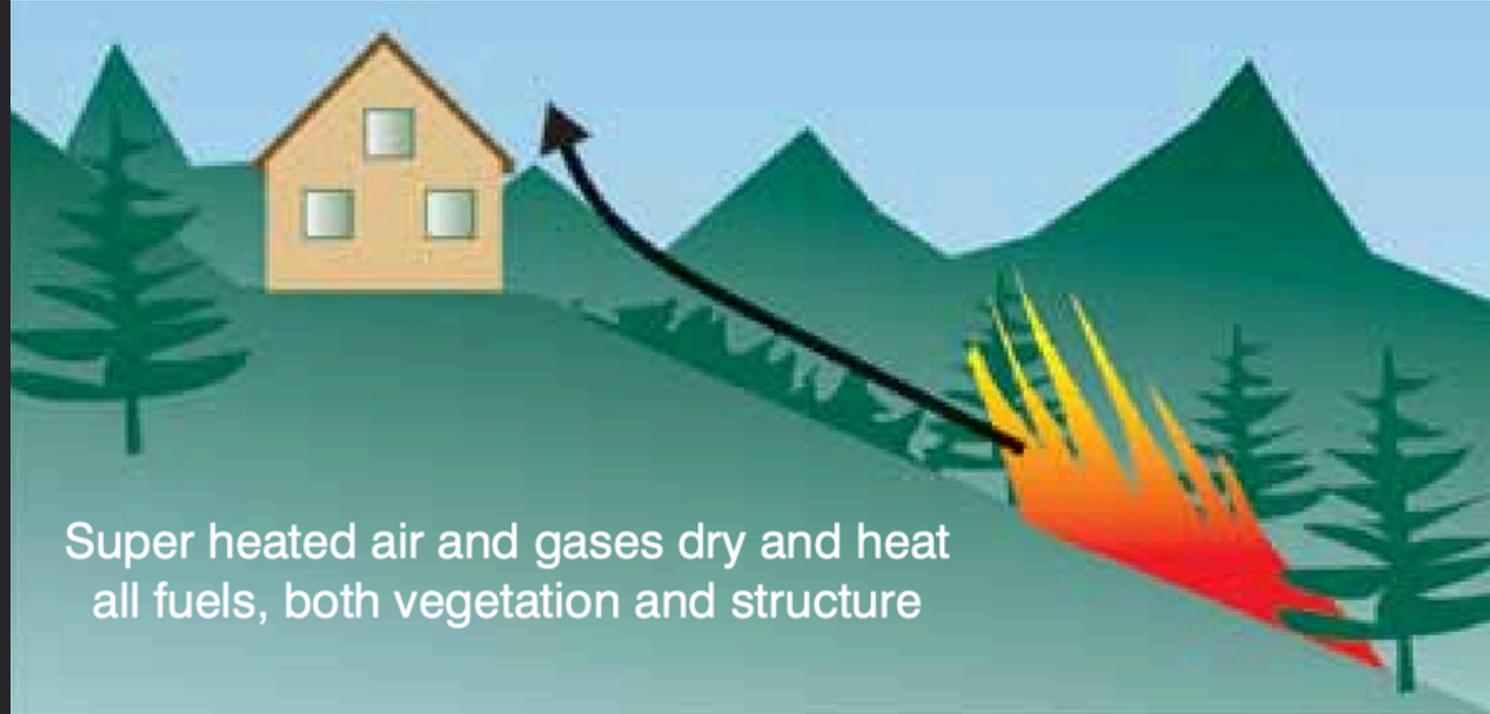


[UC ANR Fire Network - "Lessons From the 2025 LA Wildfires"](#)

Which element of wildfire exposure has the highest probability of leading to structure loss?

# Structure Vulnerabilities During Wildfires

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Colorado State Forest Service - Fire Wise Construction 2009

- 60-90% of structure loss in wildfires is due to EMBER CAST.
- Radiant heat can pre-heat structures and accelerate the process.
  - Particularly a factor in LA's WUI areas where fire spread is heavily influenced by topography.

# Home Hardening

Wildfire test structure in the IBHS Research Center's large lab.

The structure is designed to demonstrate vulnerabilities of a typical home.

# Home Hardening Discussion

1. What areas of the test home appeared to ignite most quickly?  
Where did embers appear to get trapped?
2. What areas do you think might be most easily be addressed by able-bodied homeowners even if budget constrained?
3. What materials were mentioned in the video (or that you have prior familiarity with) that may reduce the risk of ignition from wildfire?

# Sample Low-Cost Home Hardening

## Defensible Space

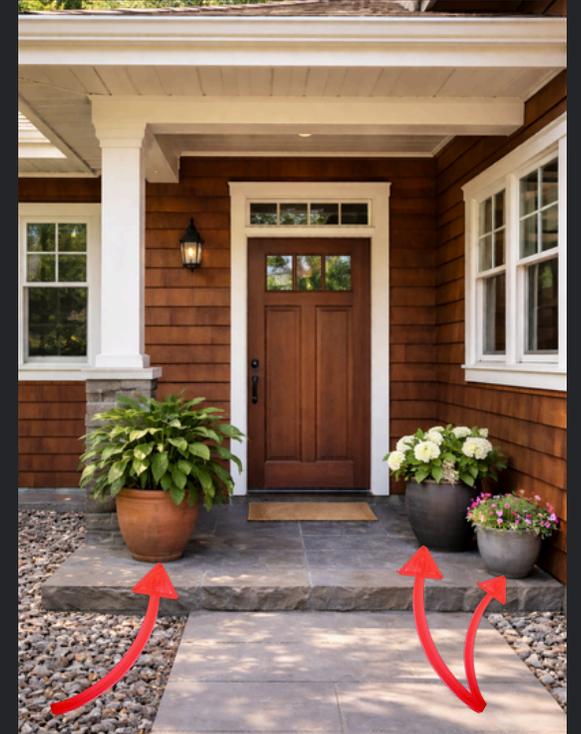
- A non-combustible Zone 0 is the gold standard for a reason
- Vegetation & Combustible Material Reduction In Zone 0
  - Significantly reduces impact from all three fire exposures that are often inevitable in WUI areas:
    1. Ember Cast
    2. Radiant Heat
    3. Direct Flame Impingement



[Rancho Santa Fe, CA](#)

- Ditch the wood mulch!
- Create fuel breaks!

ALL vegetation is combustible... particularly when humidity is low and it has been pre-heated by nearby fire



Can you move it on your own when it's time to evacuate?

Will you have time?

# Sample Low-Cost Home Hardening

## Roofs & Eaves

### • Gutters

#### ◦ Replace Vinyl With Aluminum

- Vinyl melts; creates a low flame ignition point against home
- Rough price differential:
  - Vinyl gutters - around \$5-\$8/linear foot installed
  - Aluminum gutters: around \$6-\$12/linear foot installed
  - For 150 linear feet, could be a difference of \$150-\$600 more but could save your home.
- Clean gutters! Remove the debris, don't just blow it off the roof onto ground.
- Gutter Guards - Has Pros & Cons For The Low Cost/DIYer



### • Vents

#### ◦ 1/8" - 1/16" steel mesh over all vents (including roof vents) if unable to afford replacement cost of all new "ember proof" vents

- May not prevent ALL ember intrusion but will reduce size and quantity. Use 1/16" when possible to do so without impairing vent function.
- All mesh should seal tightly - creating a frame around vent may be best option
- Don't forget DWV vents - especially if pipes are exposed PVC
  - If possible, transition to metal pipe where DWV surfaces above roofline
  - Brands like Vulcan Vent make \$20-ish vent caps/terminal ends which may be an affordable option for DWV vents only (subject to quantity and overall hardening budget)

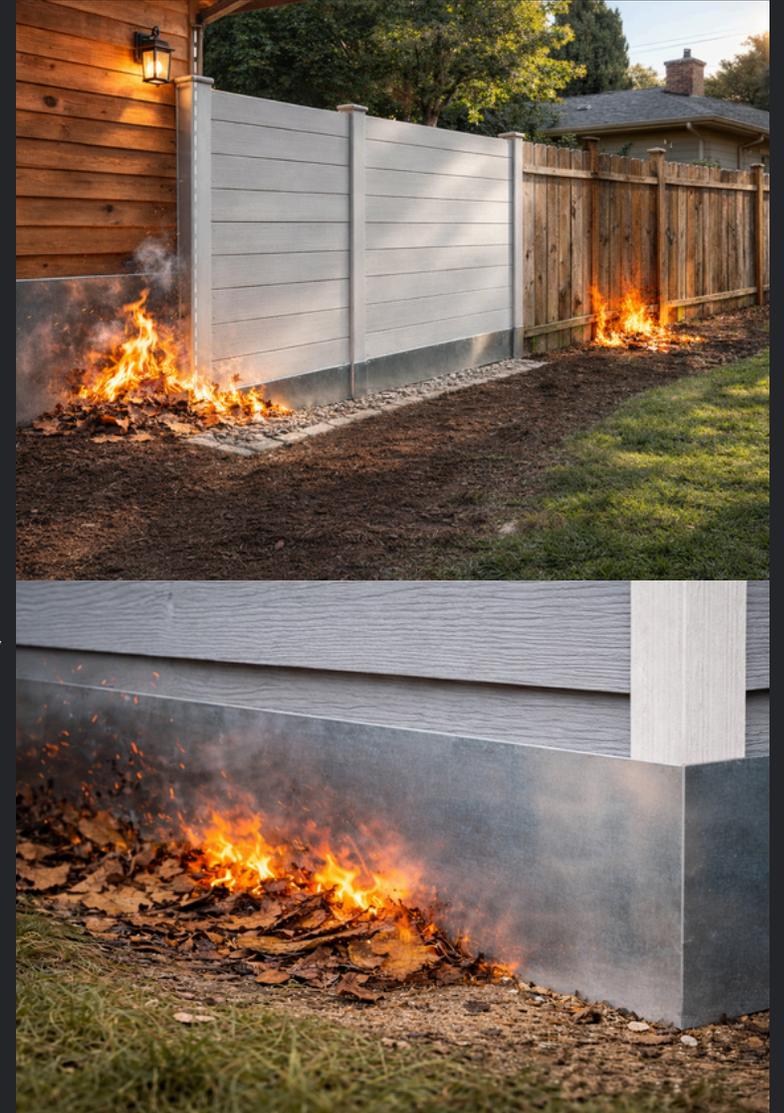


# Sample Low-Cost Home Hardening

Reduce Ability For Heat + Flame To Travel Between Surfaces  
→ Reduce Likelihood Of Fire Engulfing A Structure

## “Creating Fuel Breaks” Cont.

- When Full Siding, Fencing, Window Pane, And/Or Deck Replacement Aren't Financially Feasible:
  - Adding non-combustible flashing or trim board in vulnerable areas can create a buffer and reduce capability of heat and flame transfer from burning materials nearby
    - ONLY effective if used in combination with fuel reduction in key defensible spaces (i.e. Zone 0)
    - NOT a replacement for use of tempered glass or dual pane in windows and doors as first priority, but can reduce risk of entryway failure
    - Potential areas for flashing and/or trim:
      - At ground level of home
      - Where eave soffit meets siding or frieze board
      - Between wooden decks and siding
      - Around or underneath windows
      - Between wooden fences and siding
  - Two Cost Effective Options:
    - Metal Flashing
    - Fiber Cement Board/“Hardie Board”



# Case Study: Palisades Fire Evacuation

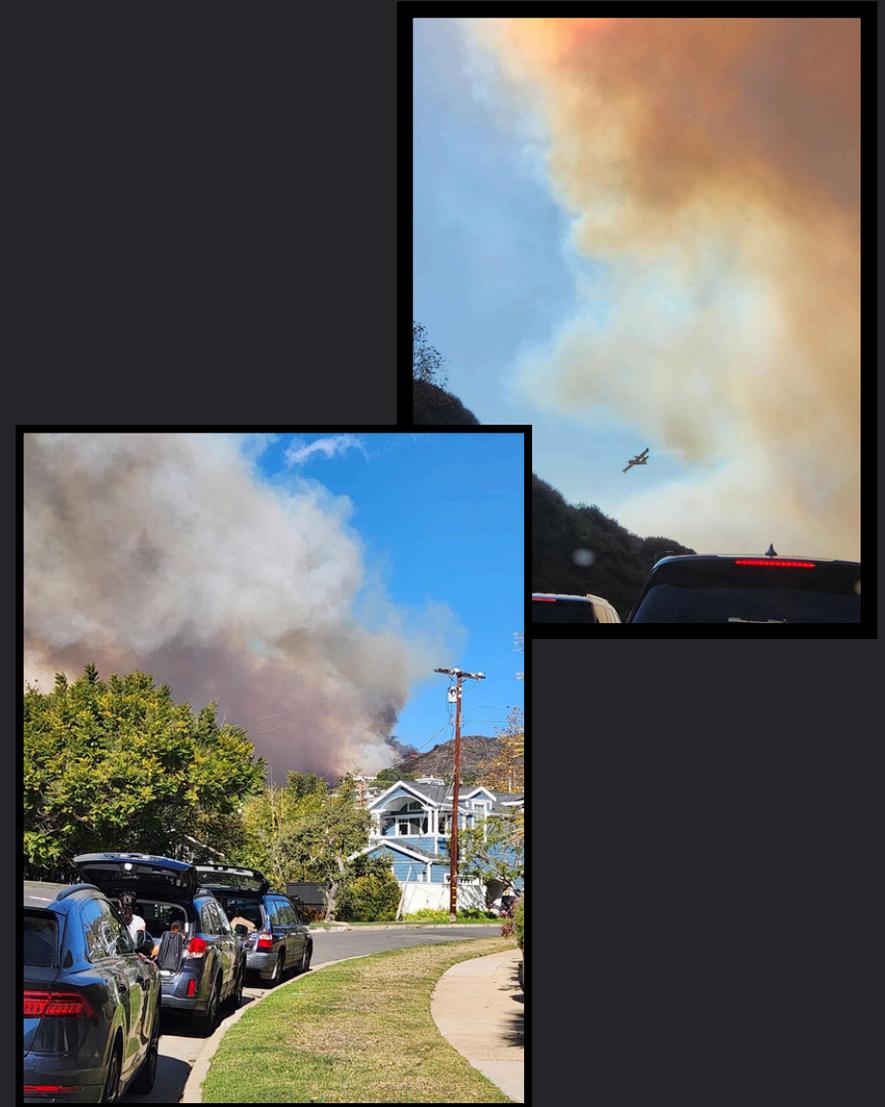
# Introduction: Nina Knierim

# Palisades Fire Experience

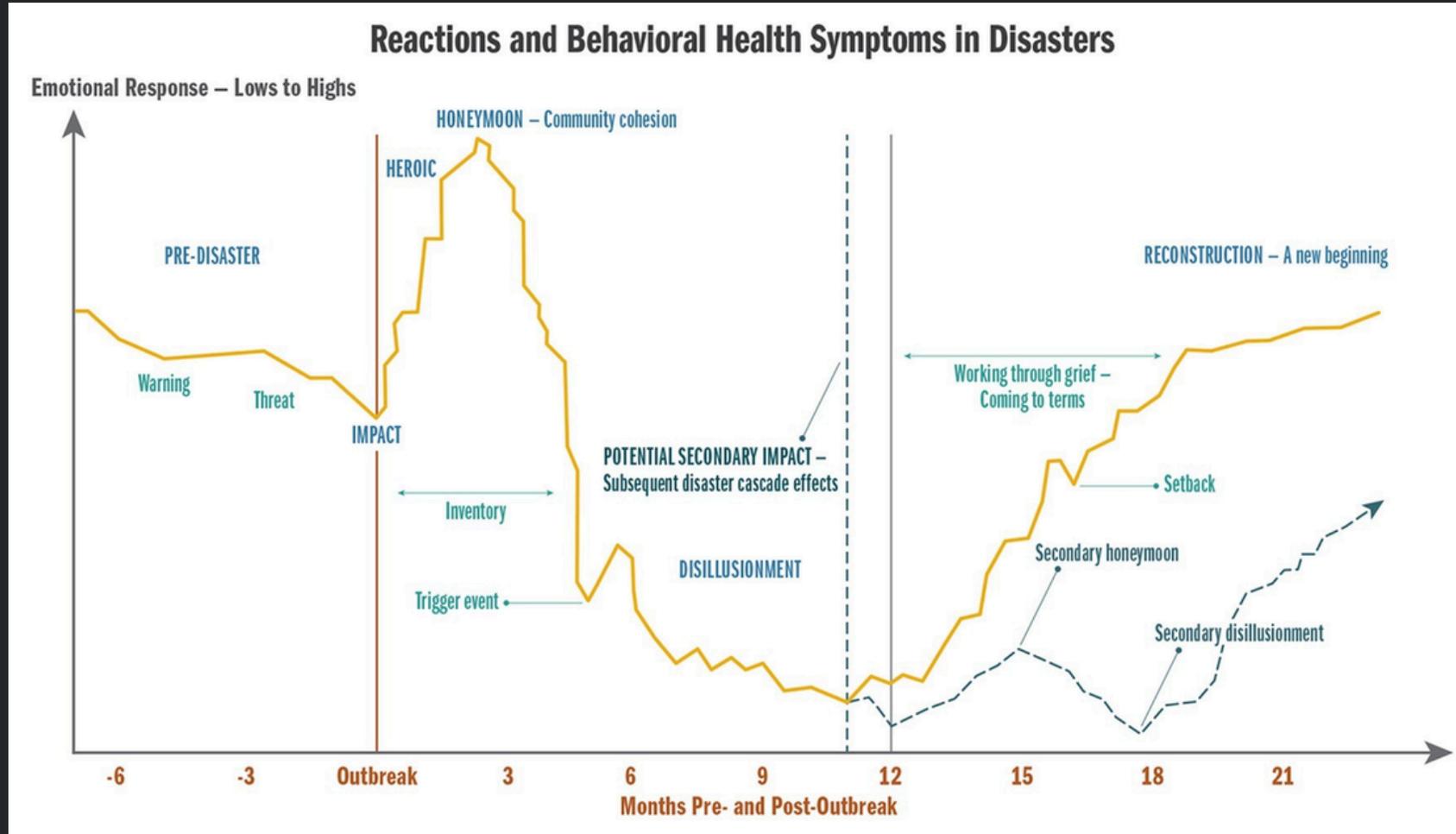
What level of government did you hear from first?

How much warning did you have?

What local entities published emergency information before the fires? Plans, evac routes, etc.



# Palisades Fire Experience



What has been your experience post-fire?

What do most people not understand about being a fire survivor?

# Palisades Fire Experience



# Discussion: Palisades Fire Experience

# Thank you

## Website



[corerresponse.org/fire-safe-foothills](https://corerresponse.org/fire-safe-foothills)

## Event Feedback Survey



[bit.ly/eventsfiresafe](https://bit.ly/eventsfiresafe)