

# Newport Beach

Wildfire Risk Assessment

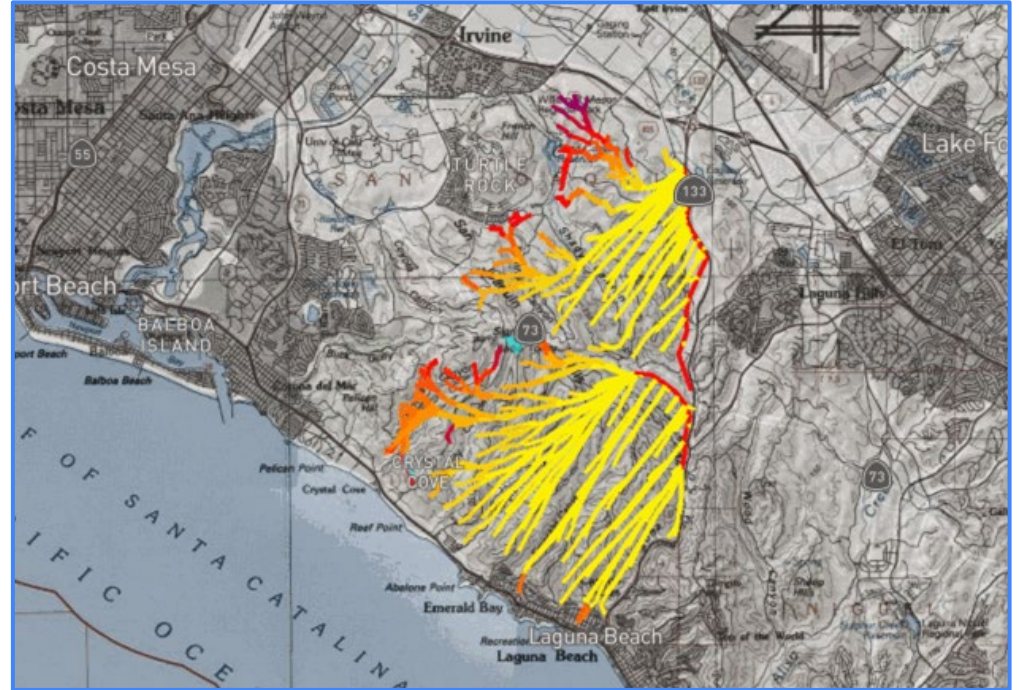
September 9, 2025



# Agenda

1. Risk Assessment Methodology
2. Fire Pathways Assessment
3. Mitigation Recommendations
4. Discussion and Q&A

**Fire Pathways** are the **routes** formed by the combination of **topography** , **weather** , and **continuous vegetative fuel** that bring **wildfire** to **values-at-risk** , including structures and critical infrastructure, during a **fast-moving** , **wind-driven fire** event

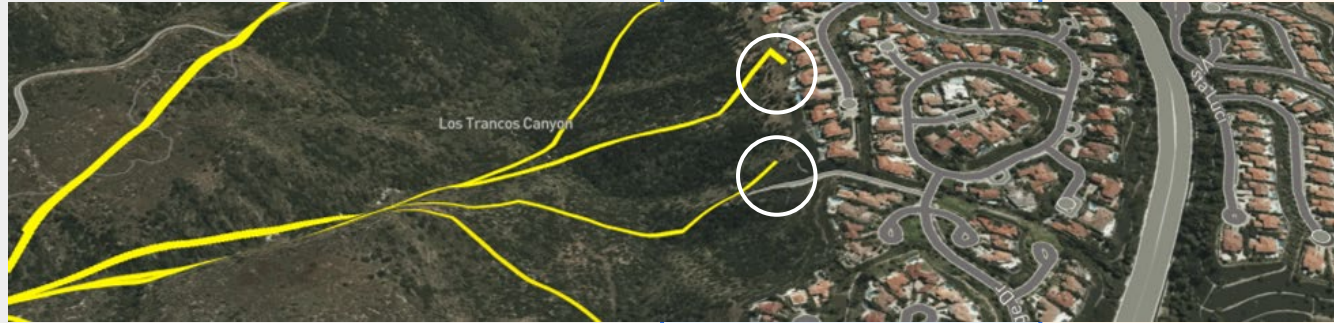


*Fire Type*

Vegetative Fire

Point of Transition

Urban Fire



*Mitigation Strategy*

Vegetation Management

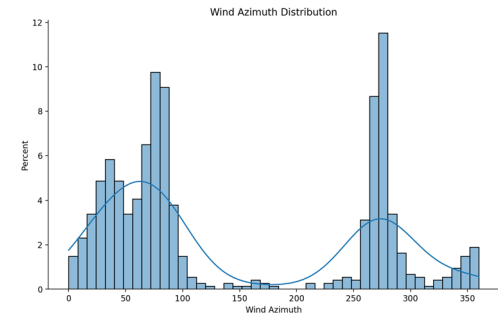
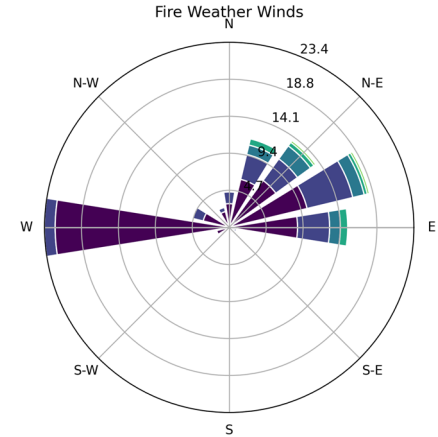
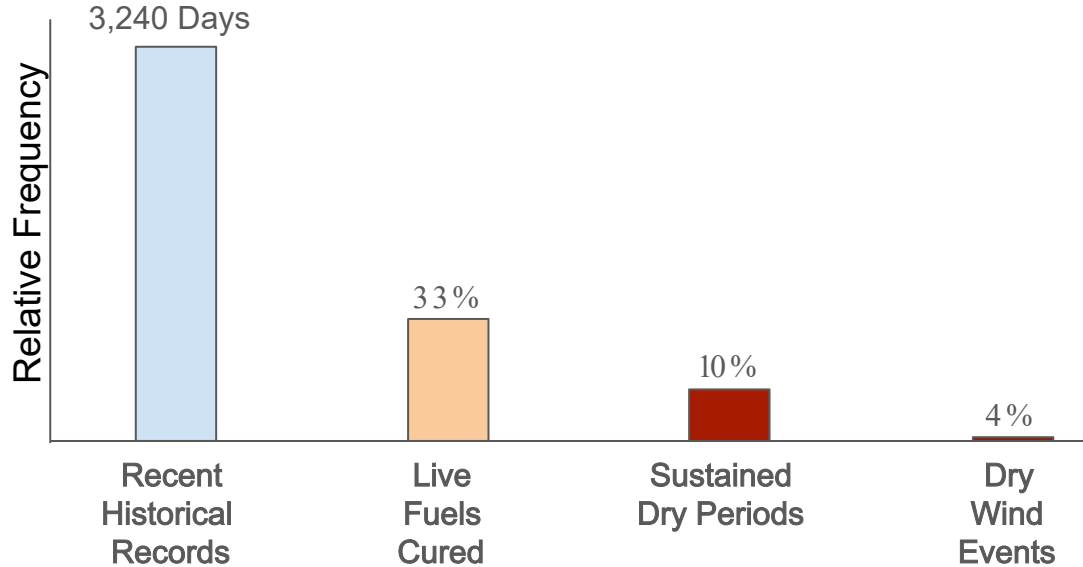
Entry Point  
Hardening/ Extended  
Defensible Space

Home Hardening,  
Breaking Up  
Contiguous Fuels

Mitigation effectiveness is measured by **structures protected** and **minutes gained** for the firefighting response

# Newport Beach Fire Pathways Assessment

Strong dry winds tend to come either from the northeast/east or from the west. Fire weather winds from the south or directly from the north are unlikely. Newport Beach experiences high - severity fire weather events about 14 days per year.



Fire history indicates fast-moving, potentially destructive fires are common in this area during late fall Santa Ana events.

Crystal Cove State Park provides the greatest fuel continuity between development and vegetated open spaces in alignment with the wind.

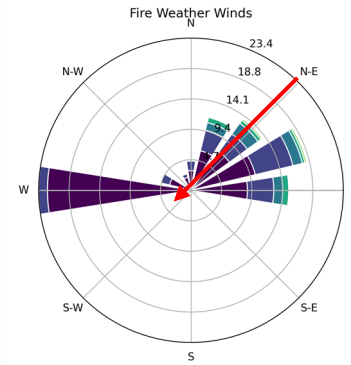
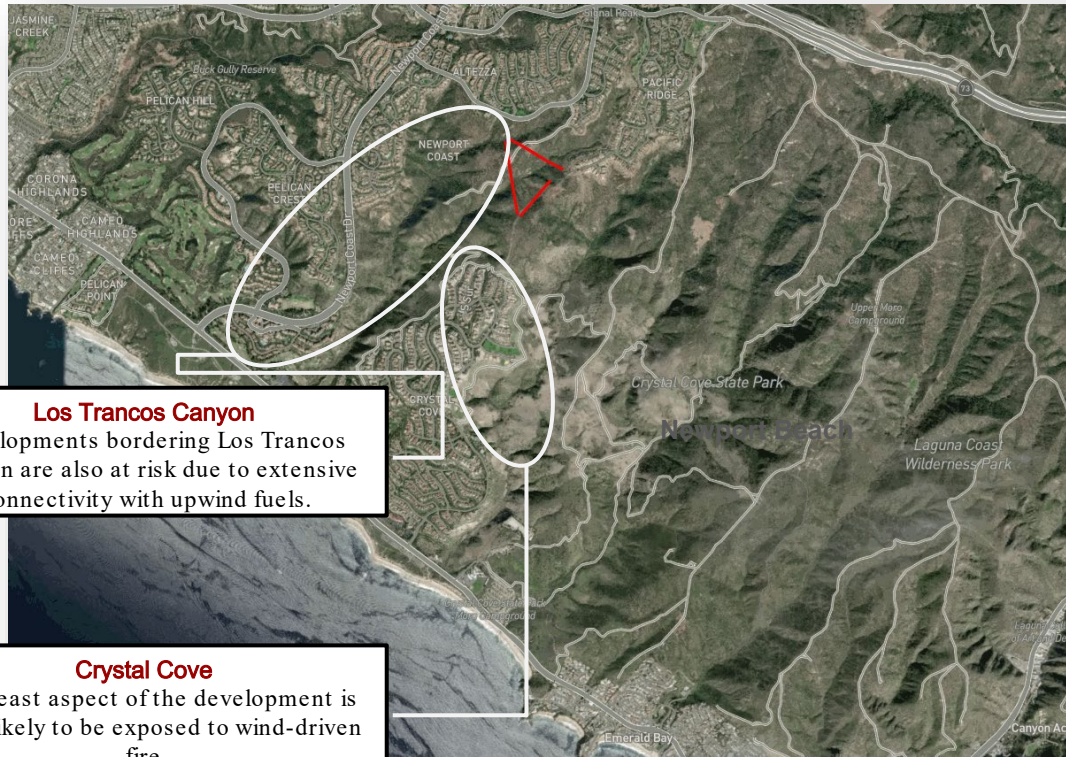


Coastal Fire, May 2022

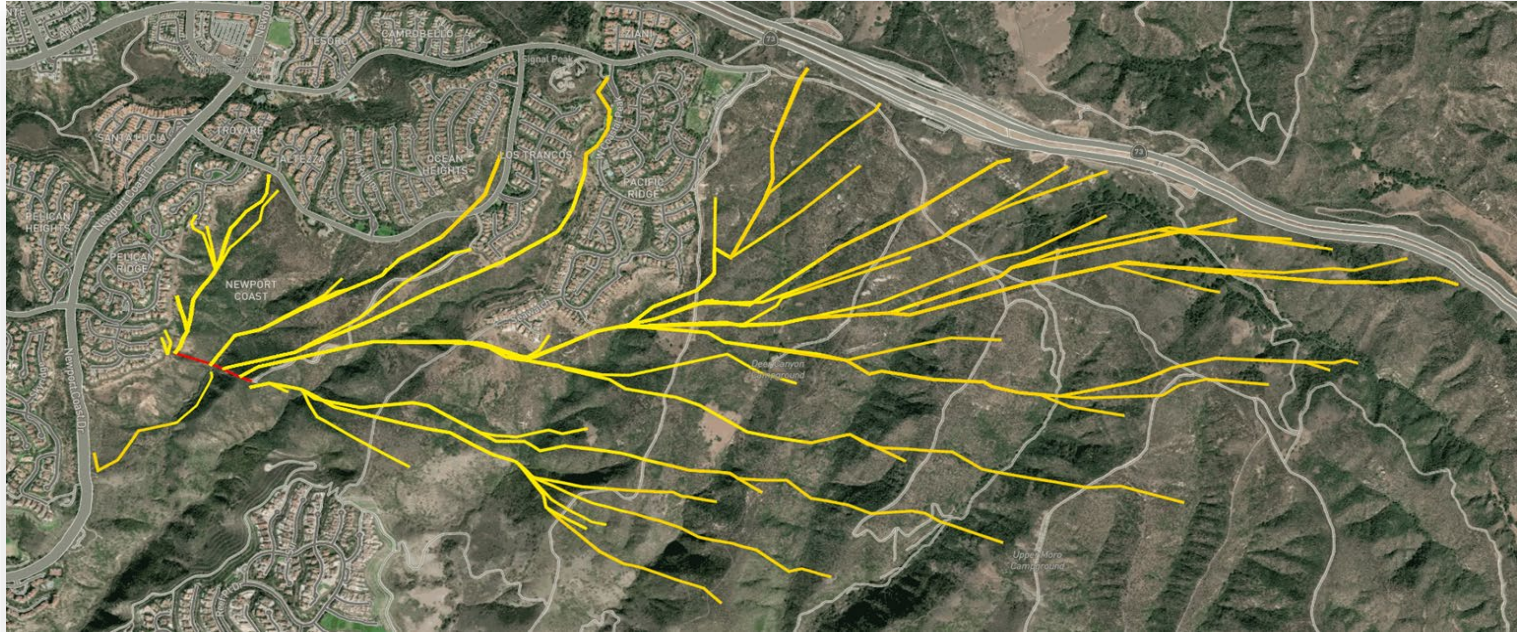


Laguna Fire, October 1993  
4.4 miles per hour rate of spread



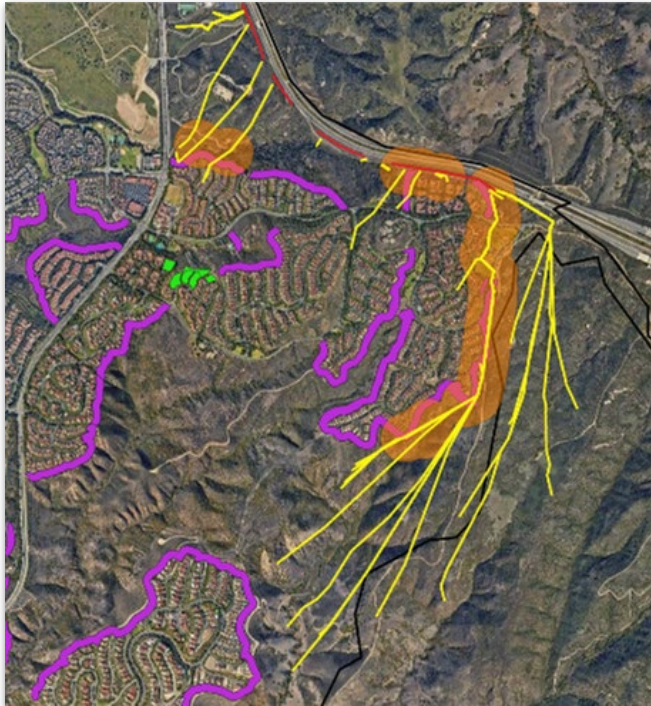


Greatest threat is a fire burning during a Santa Ana wind event through Crystal Cove state park or connected open space. North wind events tend to be drier, stronger, and longer duration events than west winds.

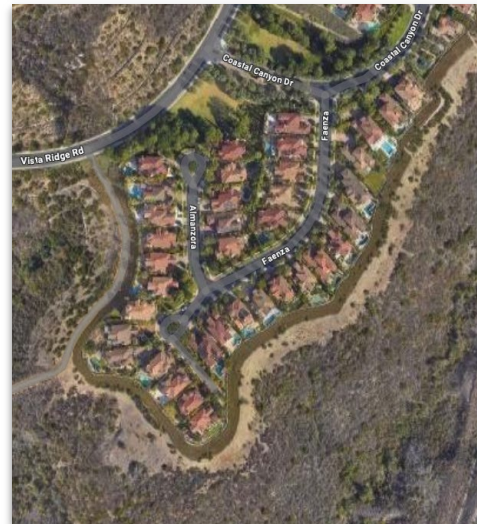


West winds can drive significant rapid fire growth into the Vista Ridge and Coastal Peak neighborhoods. Upper Crystal Cove is also likely to be affected by high severity west winds.

# Newport Beach Wildfire Risk Reduction Mitigations



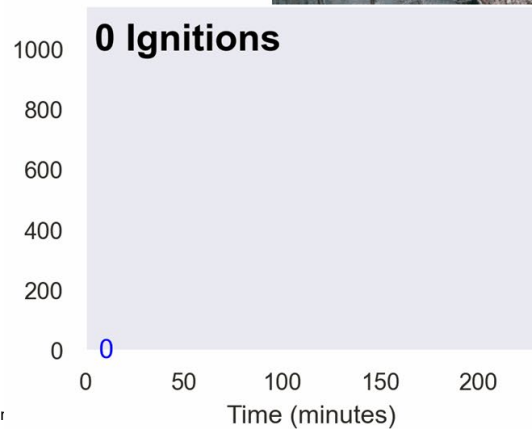
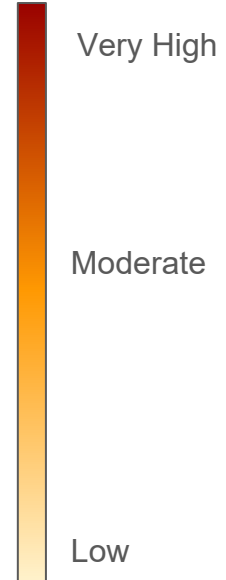
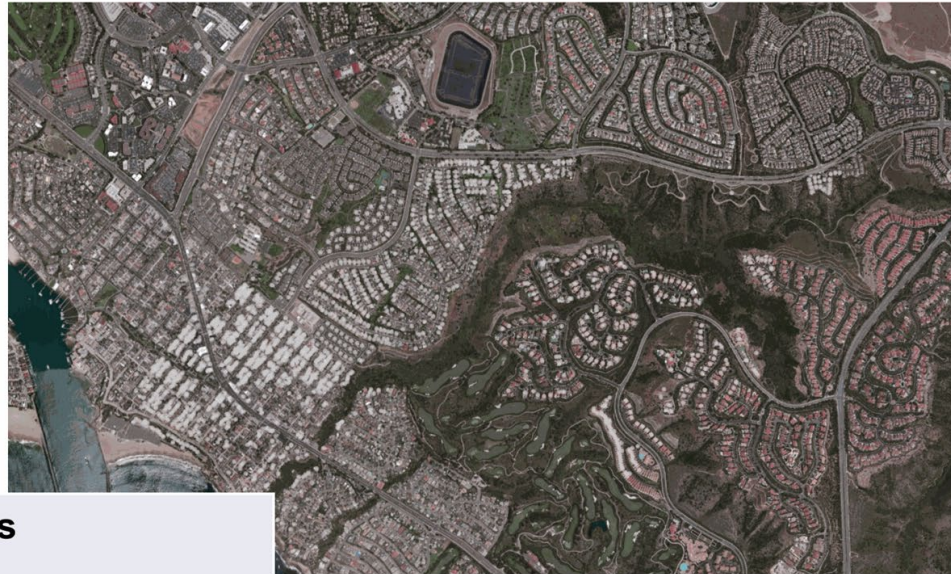
Existing vegetation management efforts are well located to interrupt fire at the points of entry.



Consider prioritizing home hardening and defensible space along the edges of the Crystal Cove neighborhood to strengthen the risk reduction of the FMZ. Coastal shrub with >11' flame lengths may produce moderate distance ember travel.

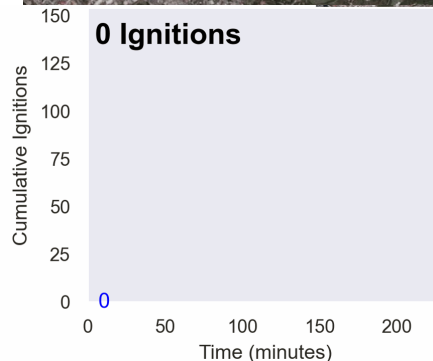
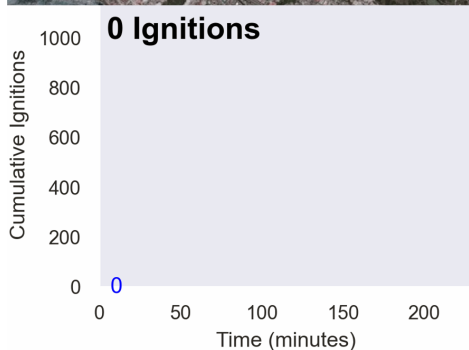
Extended defensible space and home hardening along the exposed edges is projected to be highly effective at reducing structure ignition risk.

# Urban Fire Spread Analysis- Buck Gully





# Potential Risk Reduction with Targeted Mitigations



Targeted mitigations are projected to reduce consequences of fire in Buck Gully by about 83% after 4 hours.

**Initial Ignitions: 420**  
**Mitigated Ignitions: 74**  
**Avoided Ignitions:  $\Delta$  -349**

**Hardened Parcels: 132**

**Return on Investment: 2.6**

# Newport Beach

Wildfire Risk Assessment

July, 2025

