

Climate Risk – Resilience

Andreas Muehlbauer, PhD
AVP, Sr. Lead Research Scientist
FM Global

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RIMS
OREGON CHAPTER

Outline

- **Climate Change: How are physical climate risks changing?**
- **Resilience: Practical solutions to mitigate wildfire risk**

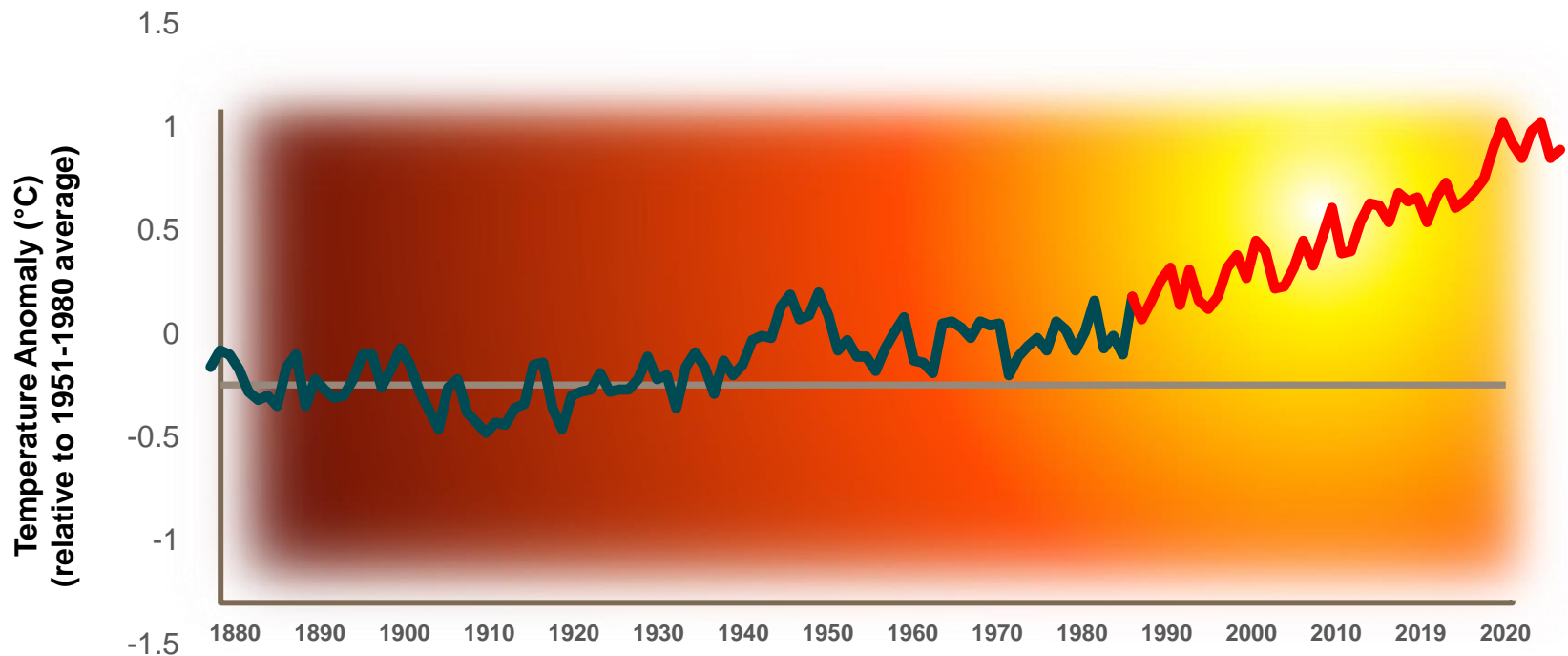
How Is Physical Climate Risk Changing?



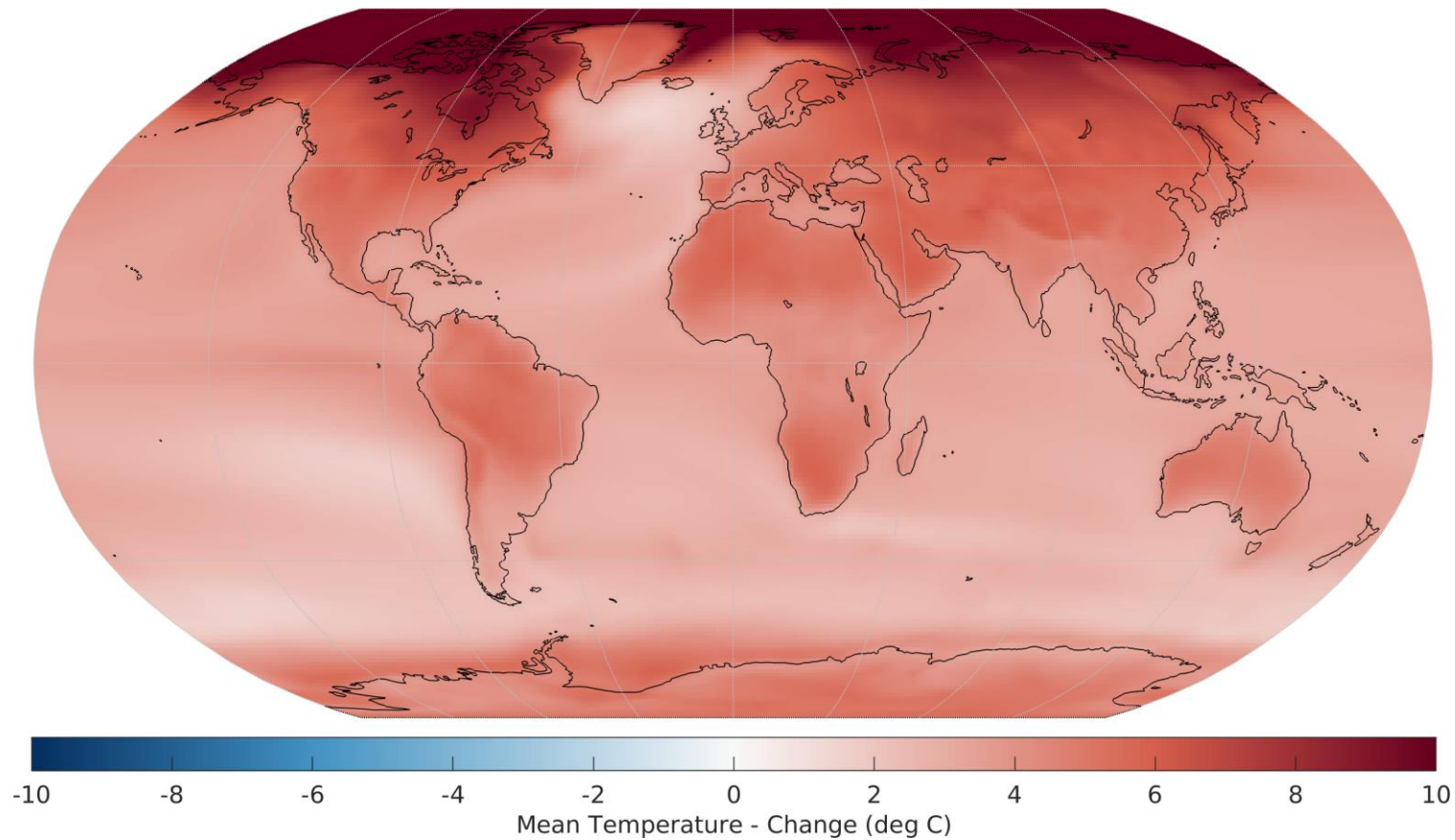
Climate Change

Heat and Cold

Temperatures Are Increasing Globally



Projected Annual Mean Temperature Change By 2100



Implications of Warmer Temperatures

More Heatwaves



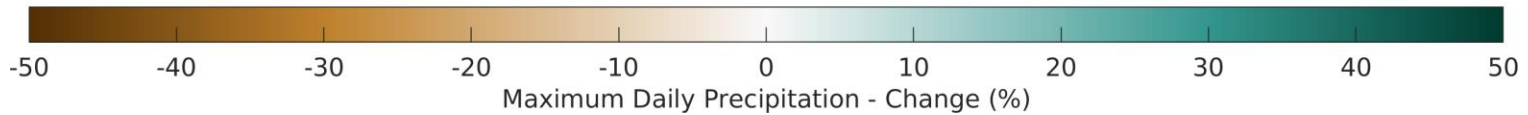
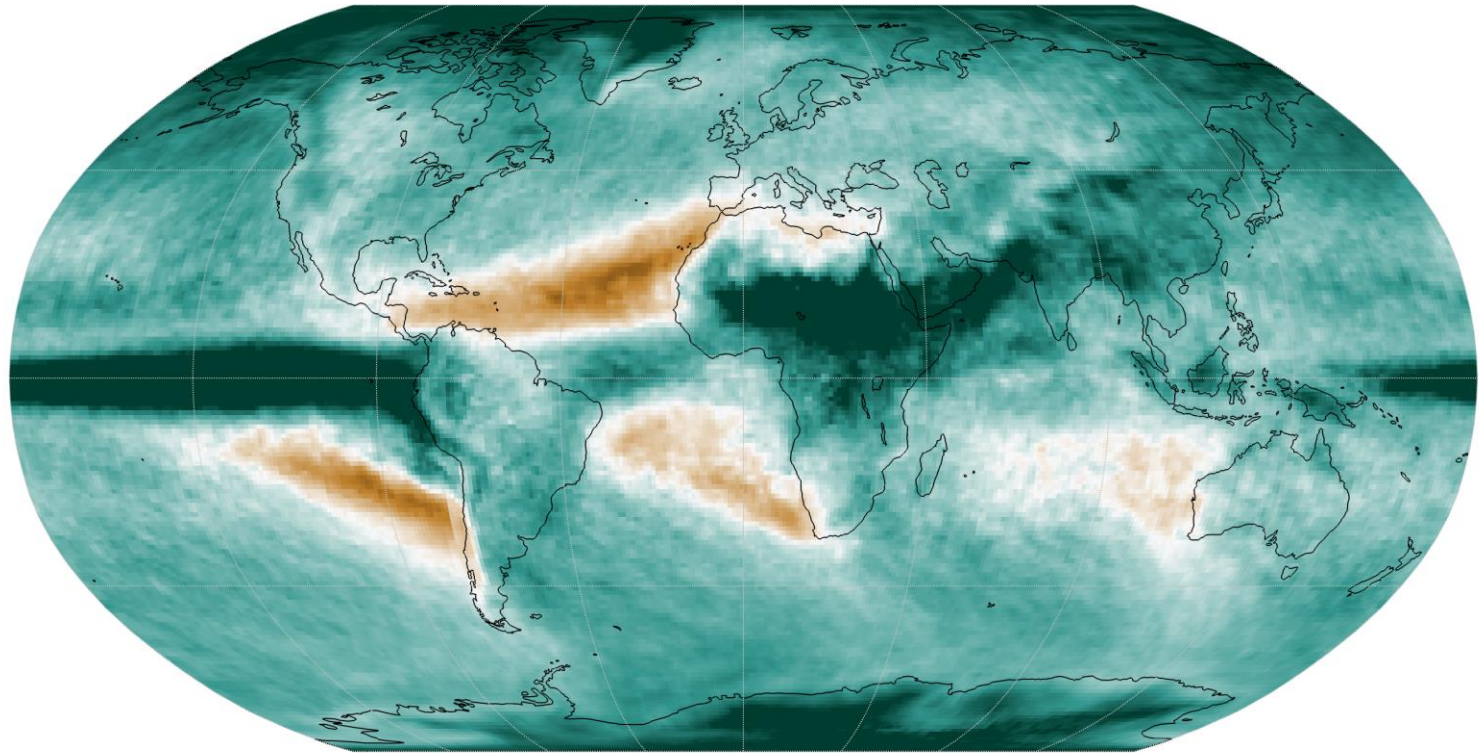
Less Cold Spells



Climate Change

Extreme Precipitation and Flooding

Projected Change in Extreme Precipitation By 2100



When It Rains It Pours... and Floods

1°C of warming = 7% more moisture

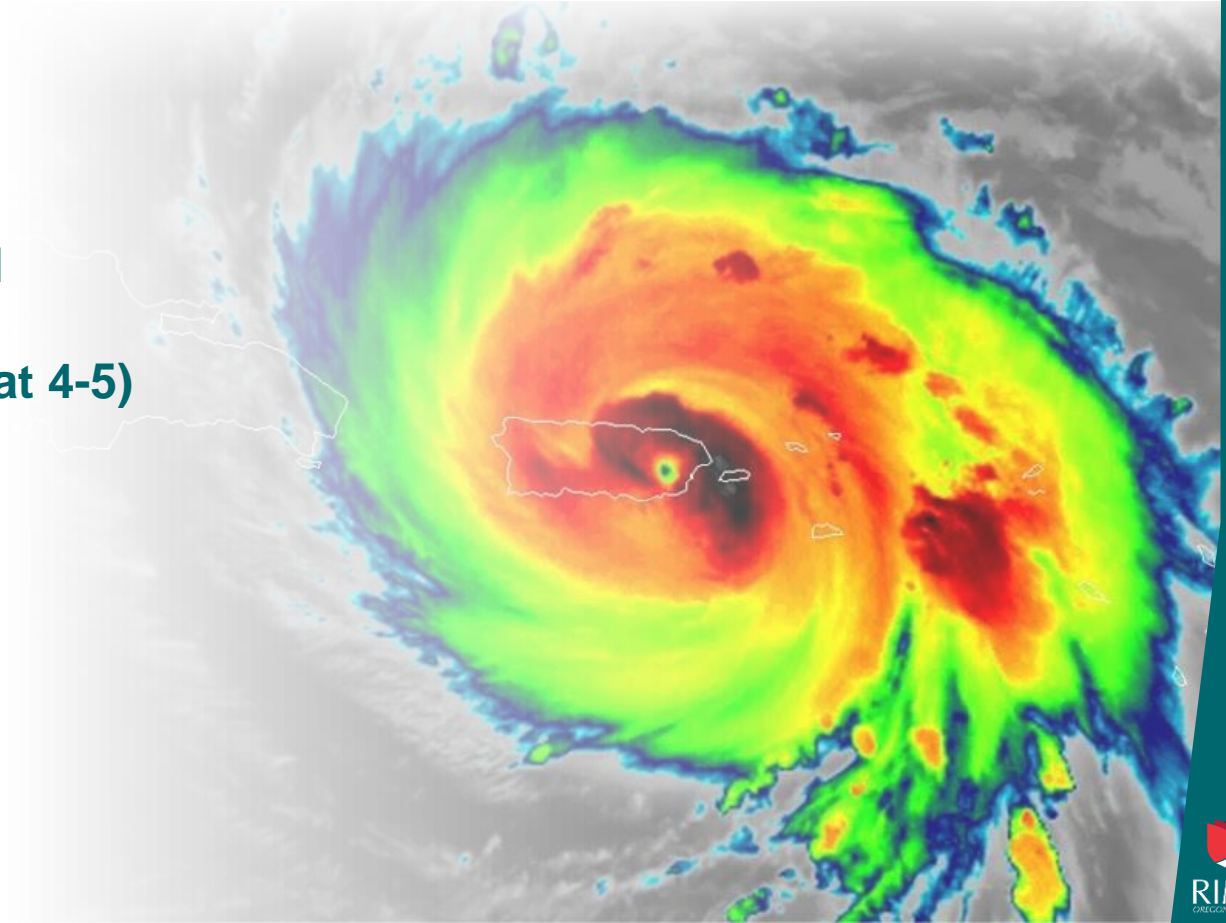


Climate Change

Wind and Coastal Flooding

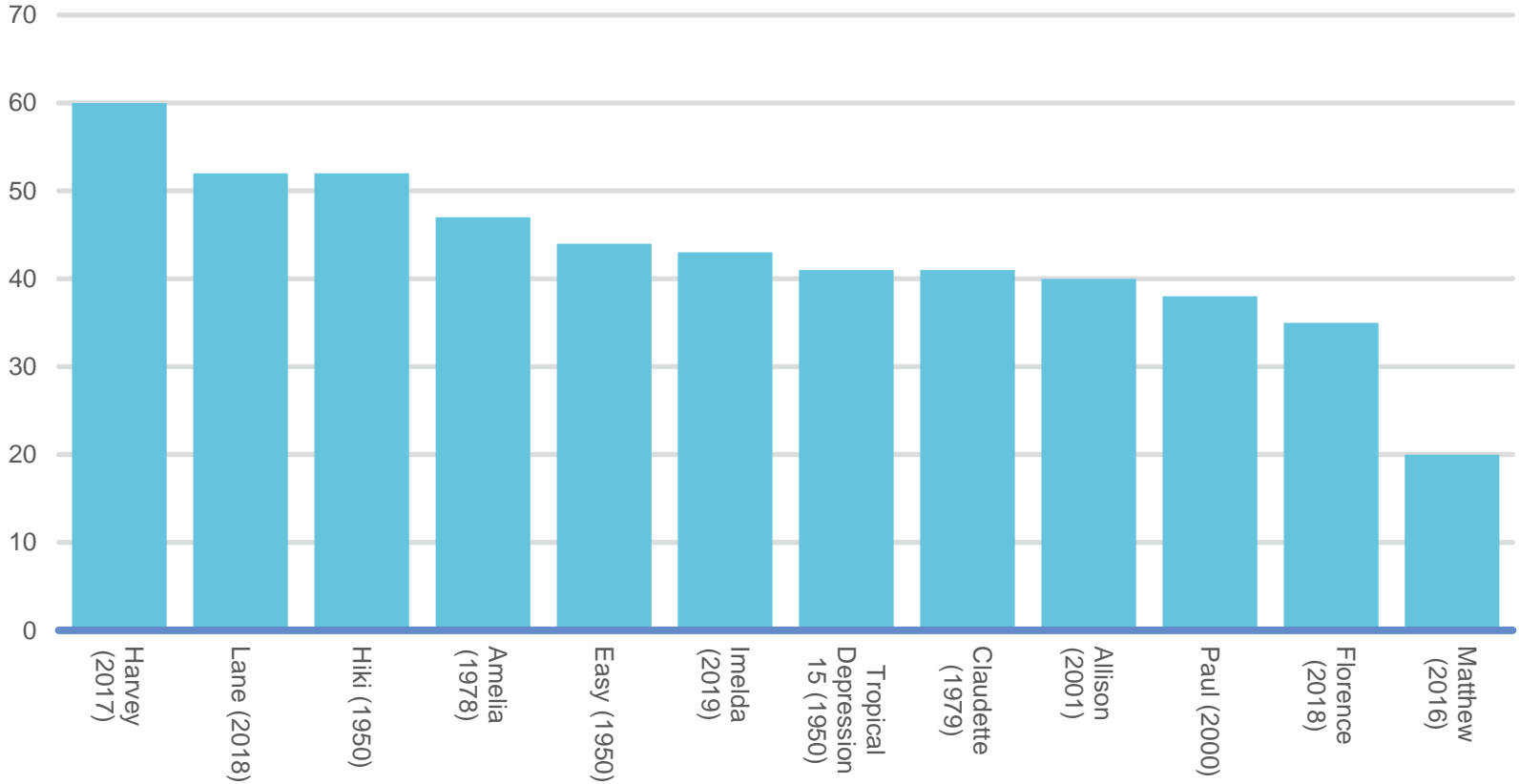
More Intense Tropical Cyclones (Hurricanes)

- ❑ **Less storms overall**
- ❑ **Stronger storms (Cat 4-5)**
- ❑ **More rainfall**

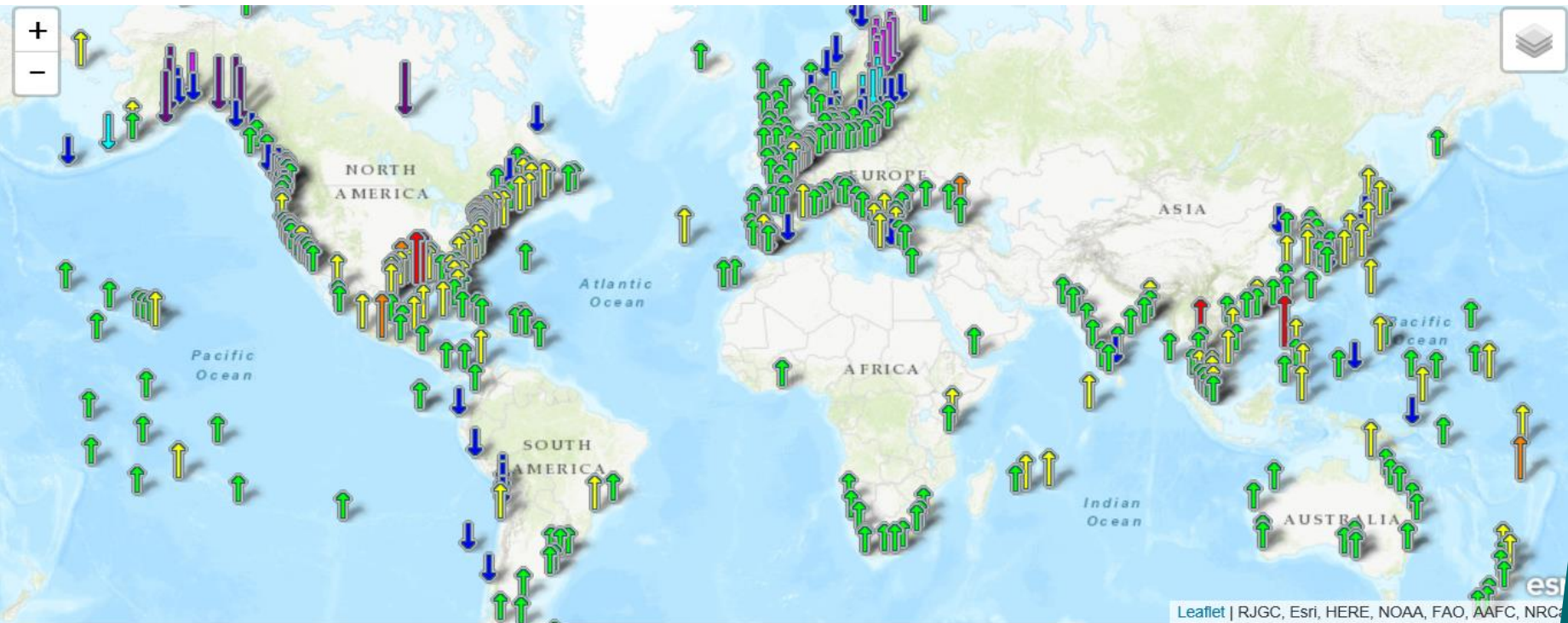


Hurricanes Are Often Flood Events

Extreme Rainfall Events in the US (inches)



Sea Levels Are Changing Around the World



The map above illustrates relative sea level trends, with arrows representing the direction and magnitude of change. Click on an arrow to access additional information about that station.



Increased Risk of Coastal Flooding

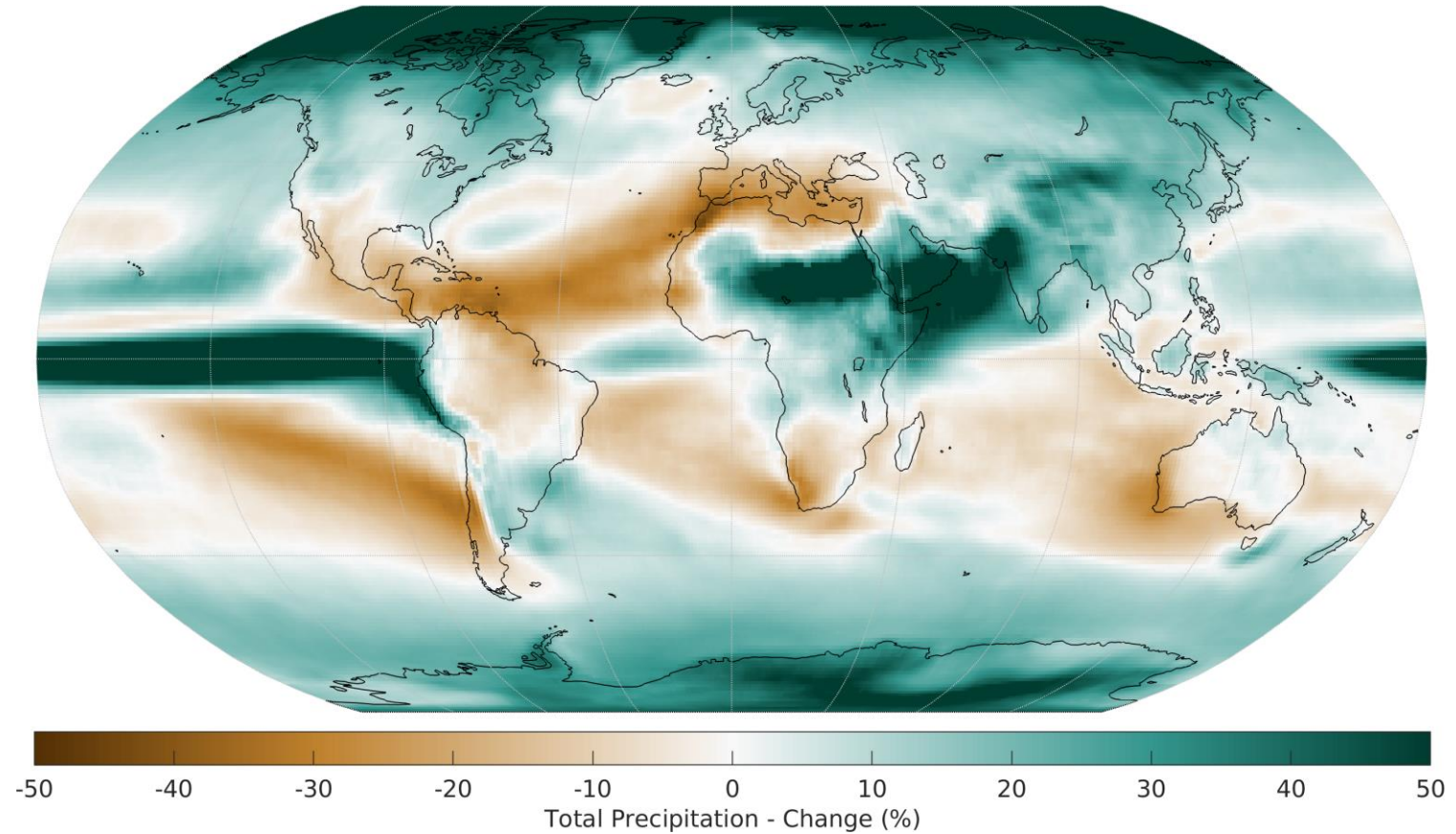
- ❑ Higher storm surge
- ❑ Increased risk of coastal flooding



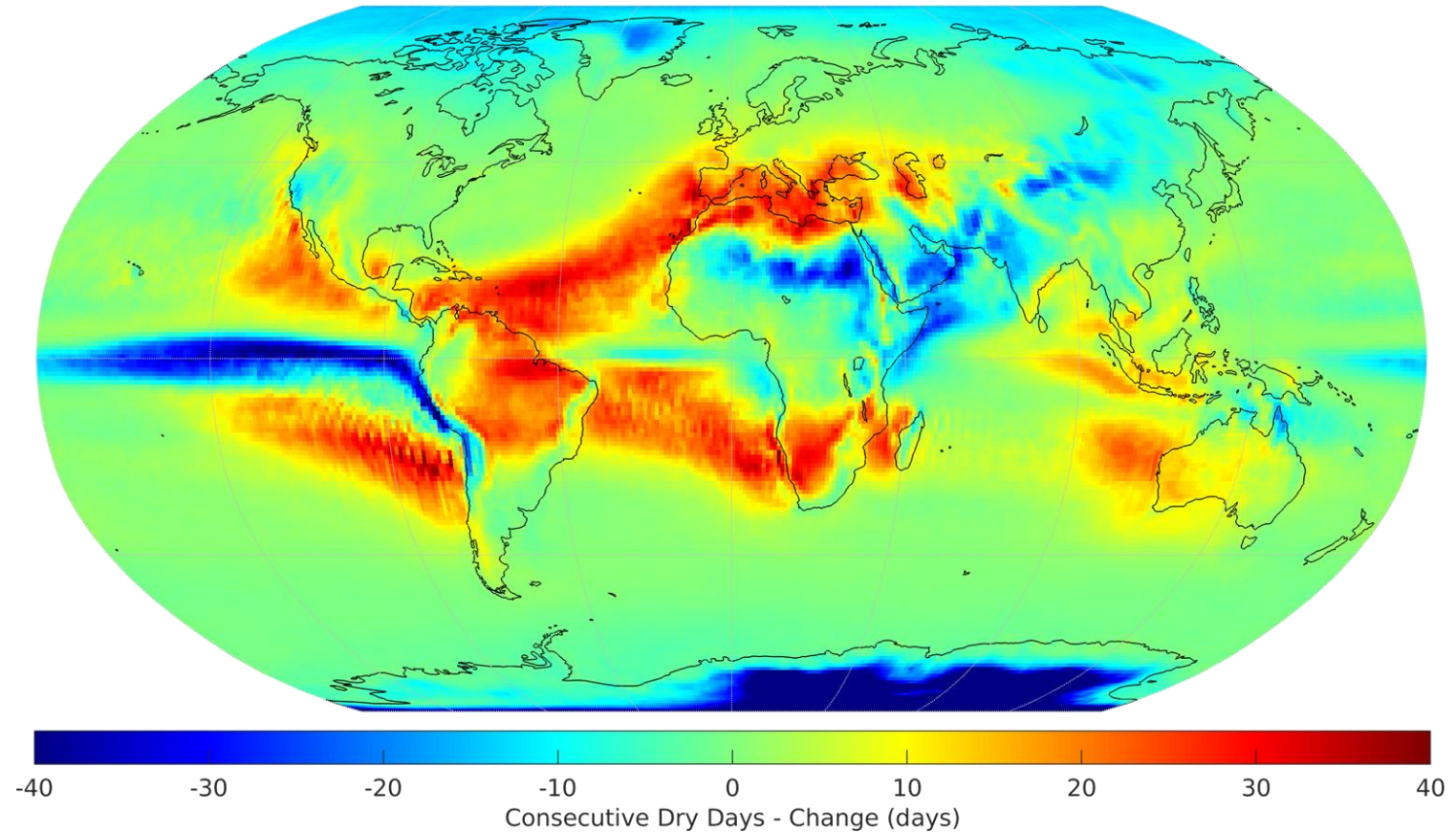
Climate Change

Drought and Wildfire

Projected Changes in Precipitation Patterns By 2100



Projected Changes in Drought By 2100



Less Rainfall in Some Areas Increases Wildfire Risk



**Increasing
Evapotranspiration**

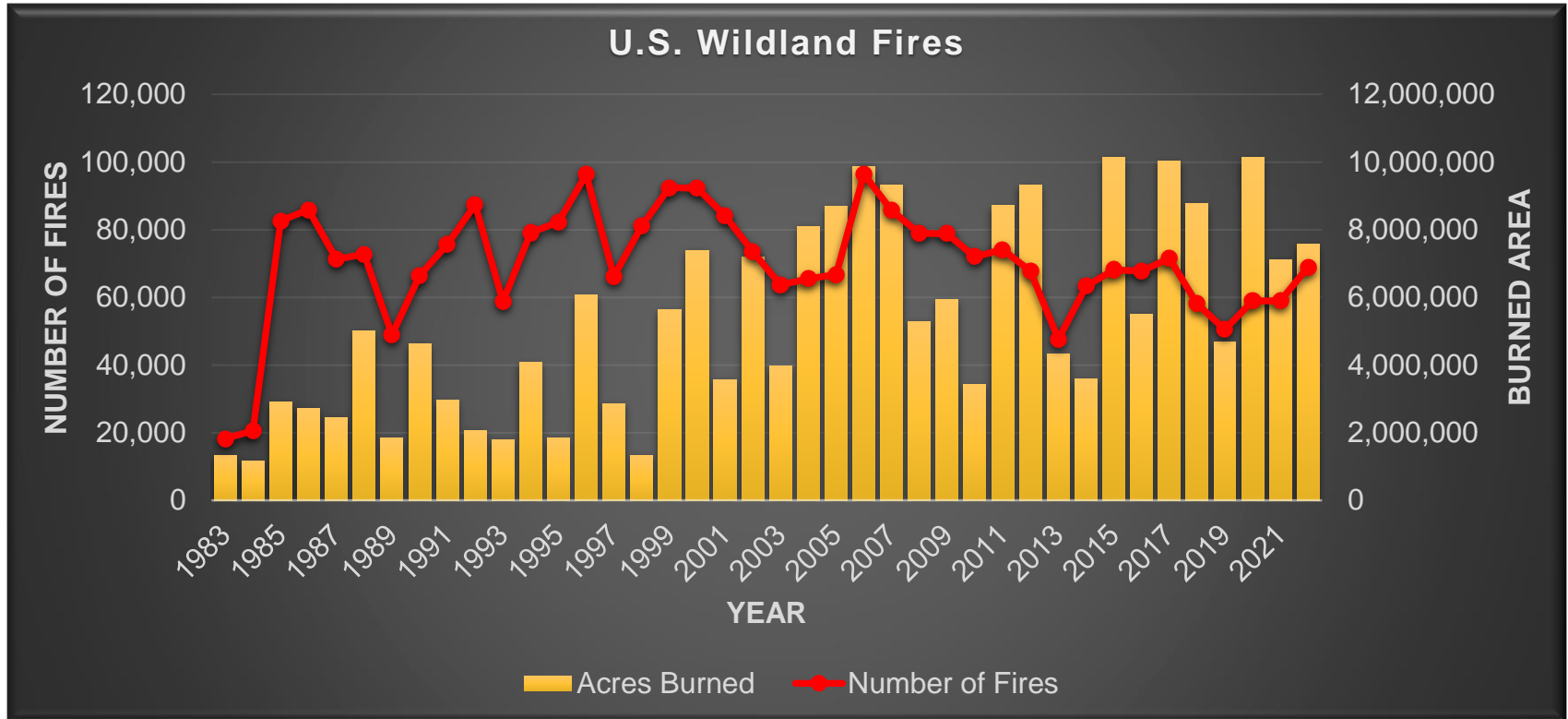


Drier Vegetation



More Severe Wildfires

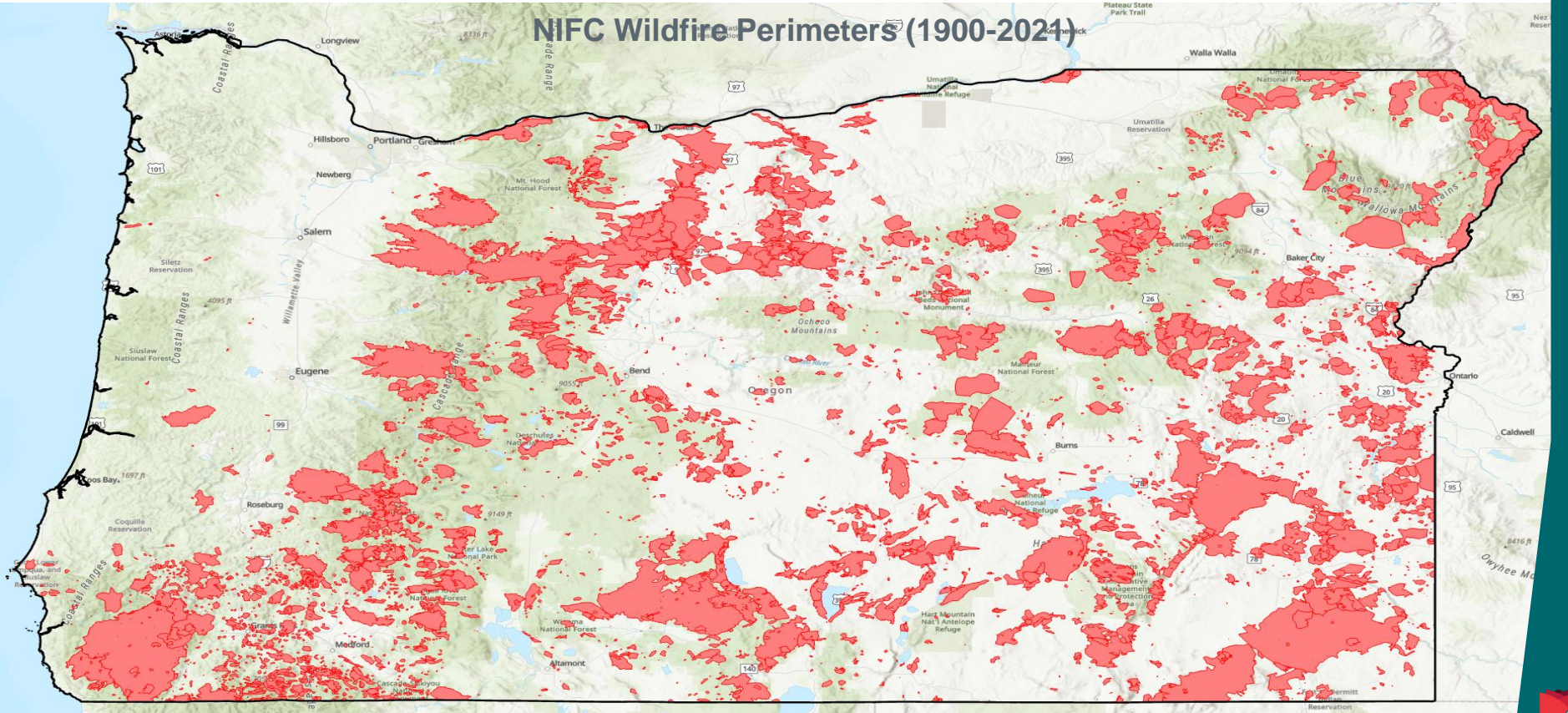
Risk for Catastrophic Wildfires Is Rising



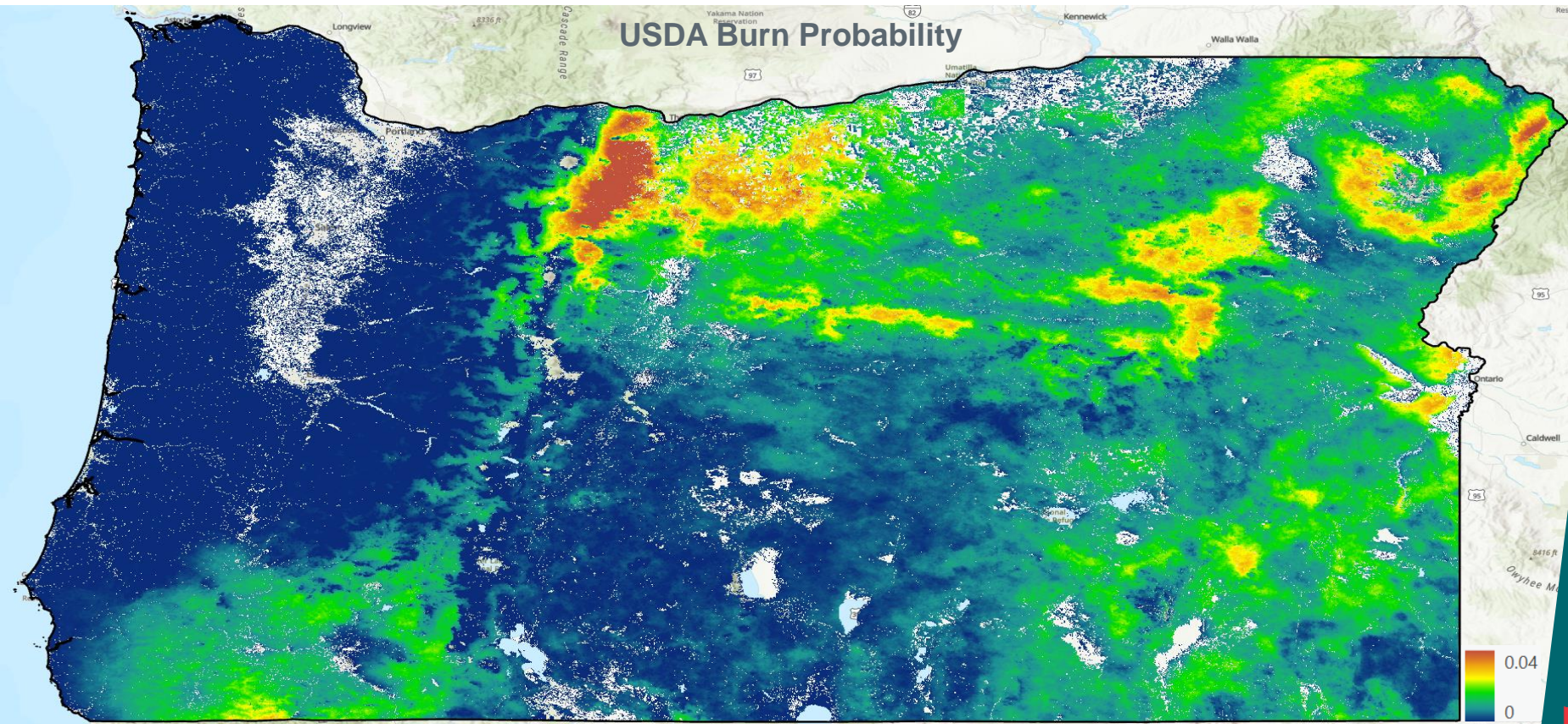
Climate Resilience

Wildfire

Understand Your Risk: A Historic Perspective



Understand Your Risk: A Modeling Perspective



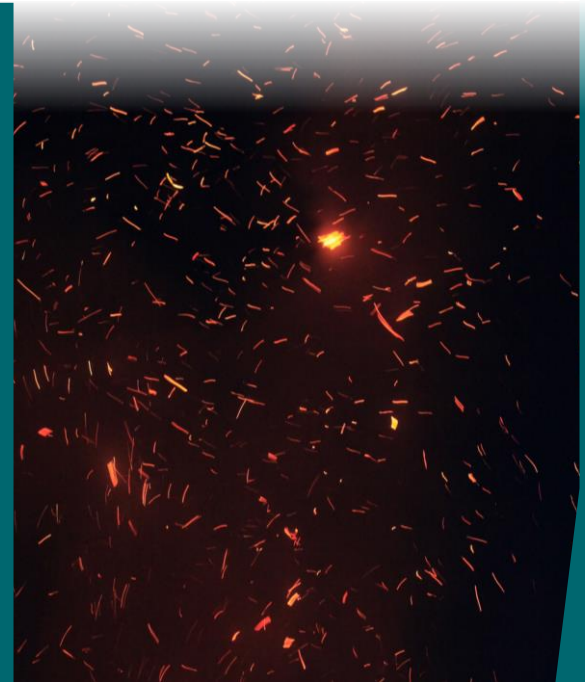
How Are Wildfires Spreading?



Direct Flame Contact



Radiant Heat



Flying Embers

Solutions to Protect Your Property



**Non-Combustible
Construction**



Vegetation Clearance



Building Envelope



**Thank
you.**