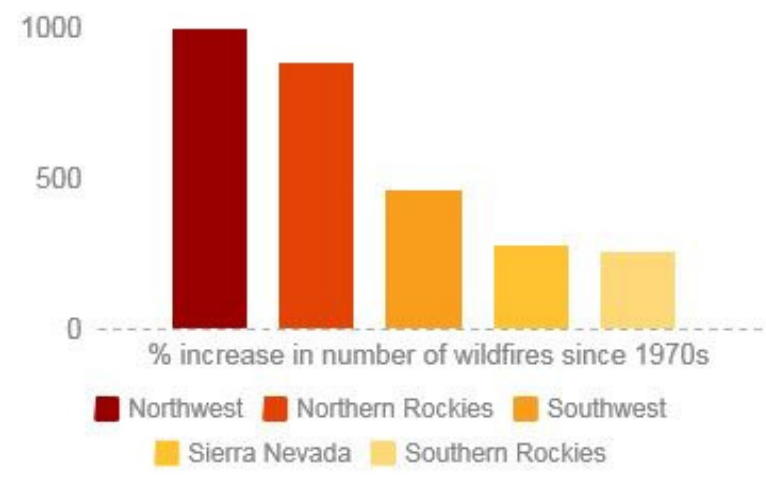
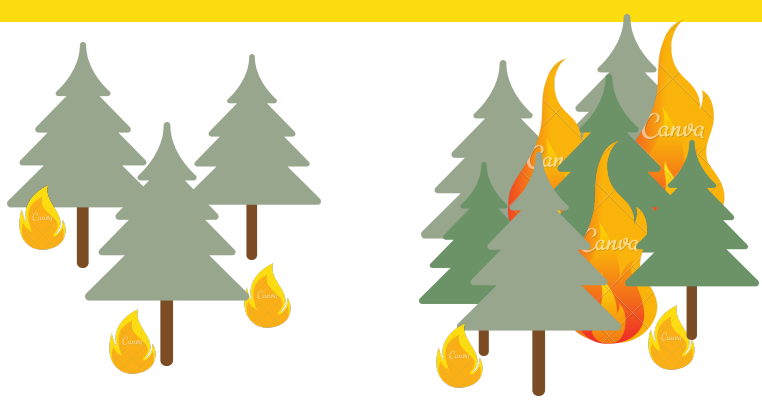
ADAPTING TO WILDFIRE

Wildfire costs and risks in the West are ever increasing with climate change: **How do we cope?**

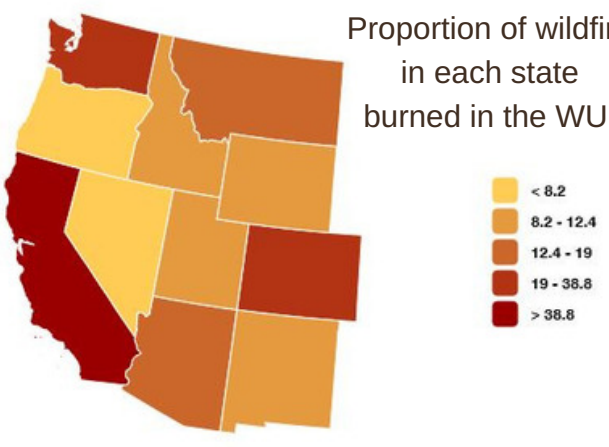
Climate change (warmer, drier and longer fire seasons) has led to more large wildfires in the West.

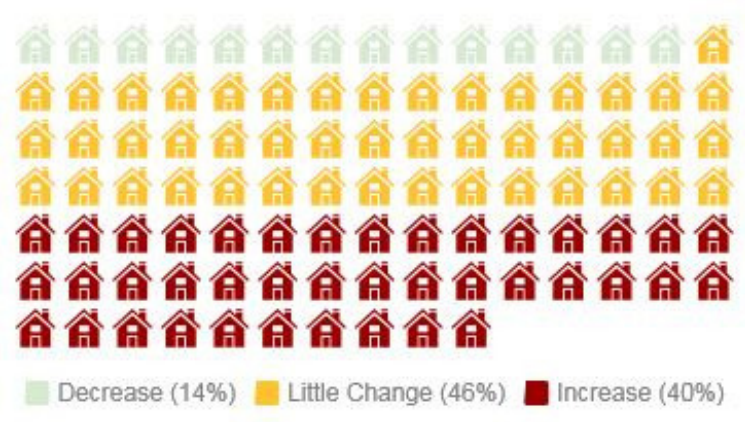


Build-up of fuels in dry forests due to fire suppression has increased chances of atypically severe wildfire.



Expansion of the wildland urban interface (WUI) by 2 million homes since 1990. By 2040, 40% of the WUI could expect increased chance of burning.

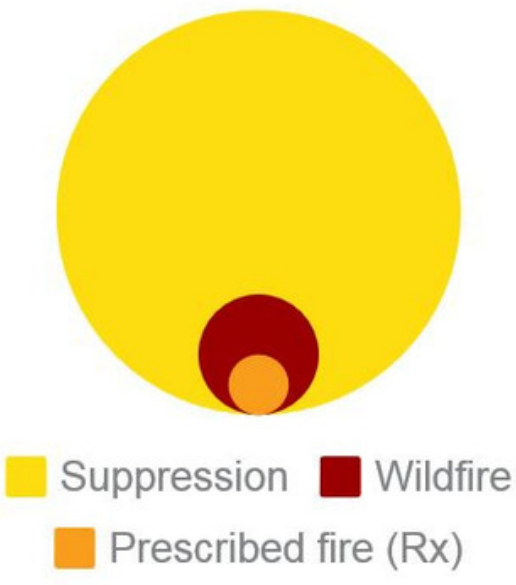




NEW ADAPTIVE APPROACHES ARE NEEDED TO MANAGE INCREASING WILDFIRE RISK AND COSTS.

Managing Wildfire

Currently, 95% of wildfires are suppressed at a cost of $13B FY 2006-2015.

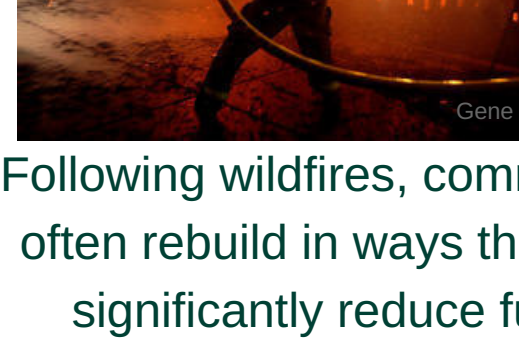


New approach: Manage more wild and prescribed fires to benefit ecosystems away from communities.

Fires today help reduce future fire risk, and create opportunities for ecosystems to adapt to future climate conditions.

Managing Fuels

US Federal fire-risk mitigation treatments sum to 17M acres and cost over $3B since 2001.



Only ~ 1% of forest treatments burn each year.

We can't rely on fuel treatments to slow regional wildfire trends

New approach: target treatments in dry forests with fuel build-up, which are more likely to burn.

Treat more private land in the WUI to better protect communities.

Promoting adaptive capacity

Protecting vulnerable communities is costly and dangerous.

Following wildfires, communities often rebuild in ways that don't significantly reduce future vulnerability.

New Approach: Promote fire-adapted planning and land-use.

Penalize decisions that increase wildfire risk, reward decisions that reduce risk to communities.

Some forested areas will not persist with changing wildfire and climate.

New Approach: Foster post-fire transitions to ecosystems more adapted to new climate.

ADAPTING TO WILDFIRES NOW HELPS COMMUNITIES AND ECOSYSTEMS REDUCE VULNERABILITY TO FURTHER CLIMATE CHANGE.

Adapt to more wildfire in western North America as climate changes. 2017. T. Schoennagel, JK Balch, H Brenkert-Smith, P Dennison, BJ Harvey, MA Krawchuk, N Mietkiewicz, P Morgan, MA Moritz, R Rasker, MG Turner, C Whitlock. ***Proceedings of the National Academy of Sciences.***

Infographic by Tania Schoennagel, University of Colorado-Boulder