## Wildfires & Climate Change

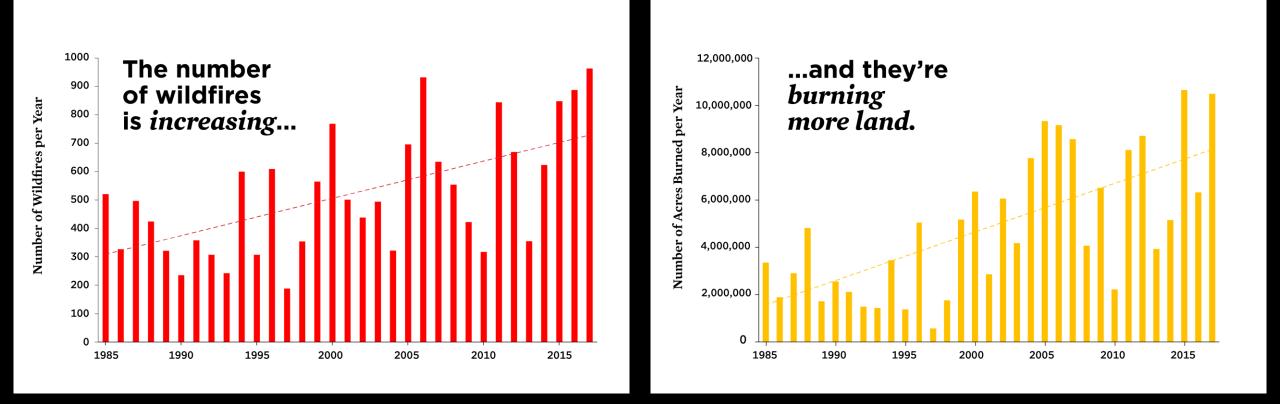
Living with Climate Change: Wildfire EESI Briefing Carly A. Phillips Union of Concerned Scientists

Image credit: nps.gov

# Science for a healthy planet and safer world.

Concerned Scientists

# Our current wildfire situation



Data from *Monitoring Trends in Burn Severity* dataset

Image credit: ucsusa.org

## A Drivers of current wildfire situation

- Loss of burning by Indigenous communities
- Widespread fire suppression
- Land management
- Human development
- Climate change

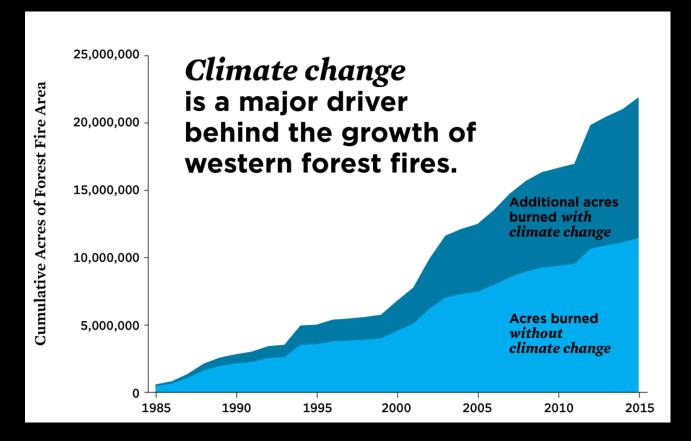


Image credit: ucsusa.org

Abatzaglou & Williams 2016, Impact of anthropogenic climate change on wildfire across western US Forests, PNAS

# Wildfires & Climate Change

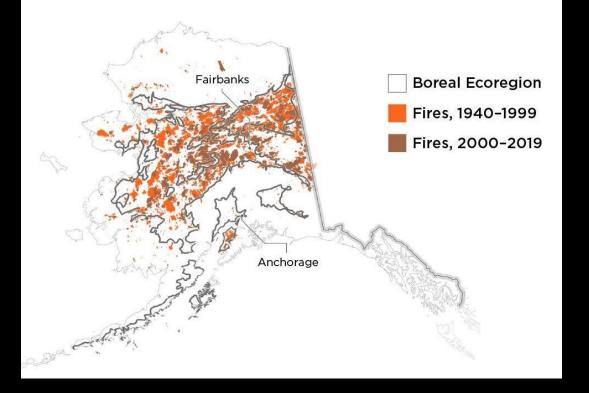
- Drought
- Higher temperatures
- Insect outbreaks
- Greater frequency of extreme fire weather
- Extension of wildfire season and shifts in seasonal dynamics





#### Carbon emissions from boreal wildfires

#### **Fire History in Interior Alaska**



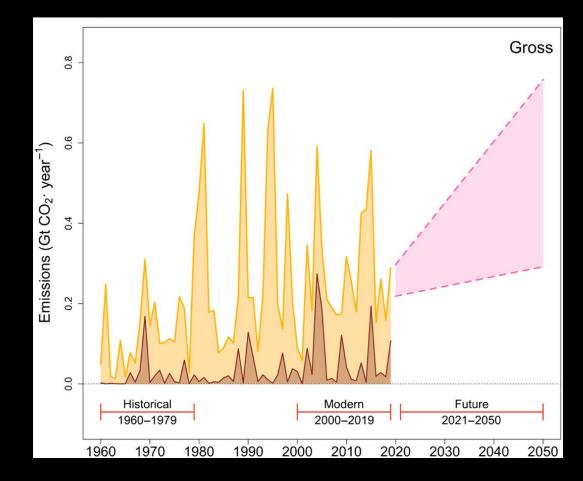


Image credit: nasa.gov Phillips et al 2022 ucsusa.org

#### Future wildfires & climate change

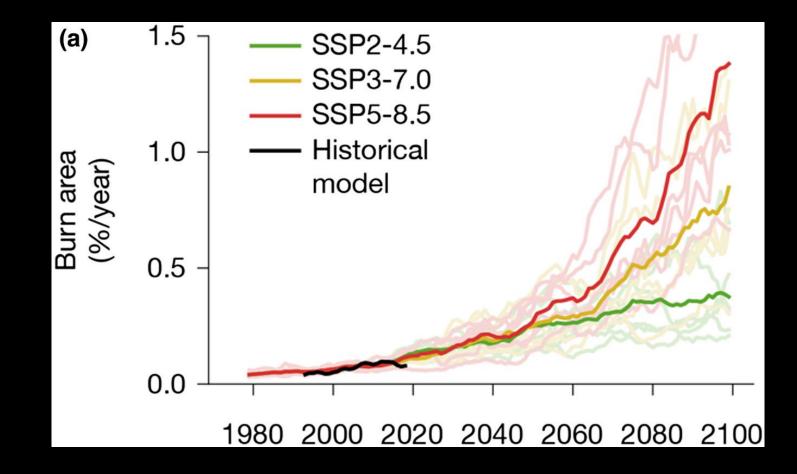


Figure from Andregg et al 2022, Future climate risks from stress, insects and fire across US forests, Ecology Letters

#### Interconnected solutions

- Reduce our production of heat-trapping emissions
- Remove excess fuel from forests and restore historical fire regimes
  - Prescribed burns
  - Managed wildfire
  - Forest thinning
- Promote Indigenous fire stewardship
- Invest in resilient infrastructure
- Provide community level support
  - Address housing challenges
  - Home hardening
  - Air filtration
  - Water resources



