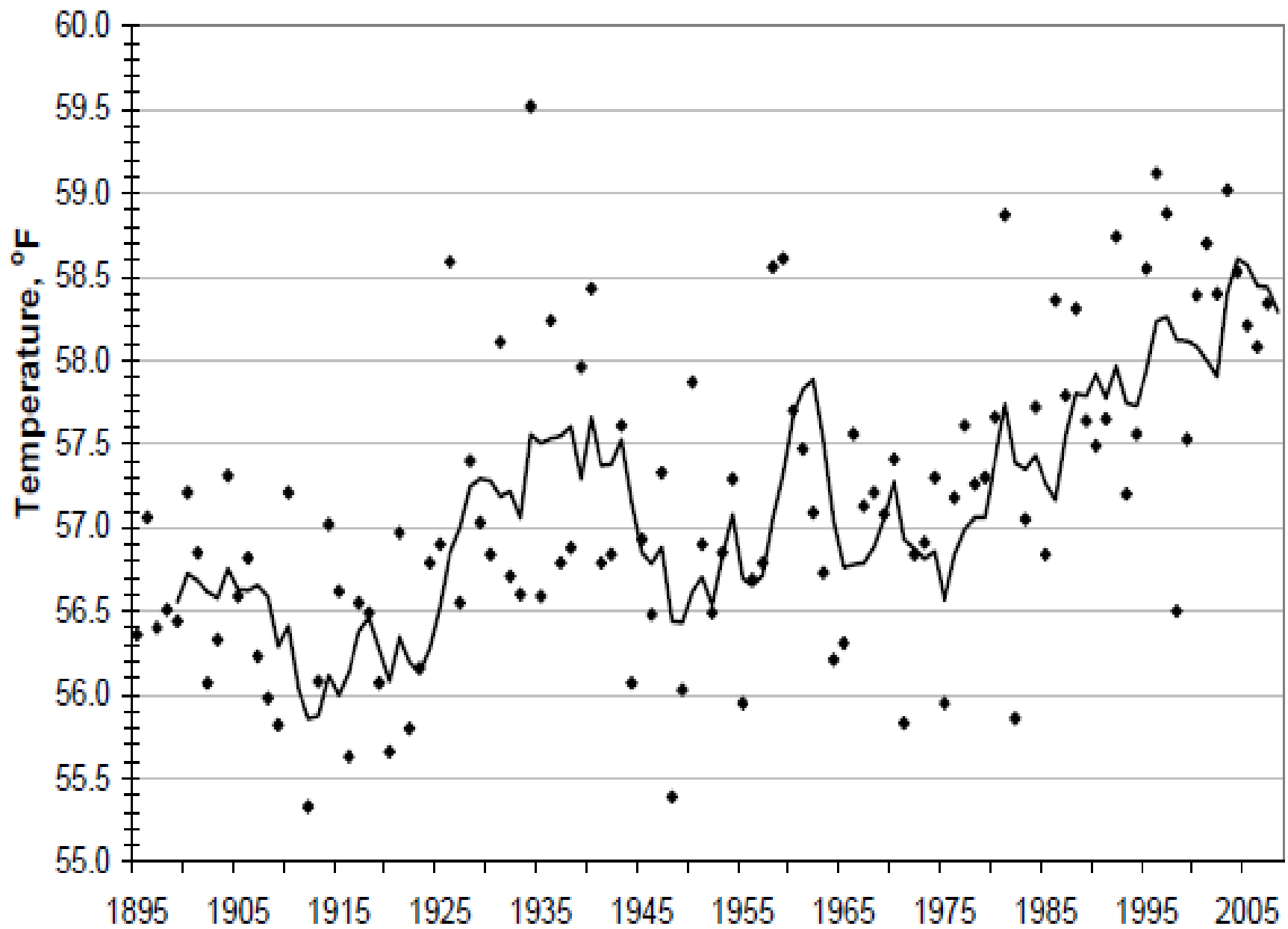


Natural Climate Solutions: towards resilient biodiversity

Louis Blumberg
JPAC – CEC
September, 8, 2016





Source: DRI, 2008

California annual average temperatures. Bold line is the 5-year running average.

Current Observed and Measured Impacts

- Species movement and decline
- Increase in growing season length
- Increase in fire frequency and severity
- Change in vegetation structure and composition
- Sea level rise

Moritz et. al 2008; Rubidge et al. 2012; Kelly and Goulden 2008; Westerling 2008;
Cayan et al. 2008; McIntyre et al. 2015

Significant Impacts by 2100 even with Lower Emission Projections

Governor Brown's target
80% below 1990 levels by 2050

- 30 – 60% loss of snow pack
- 6-14 inches sea level rise
- 2 to 2.5 times more high heat days

Natural Climate Solutions

Reducing
Emissions

Restoring
Carbon



Enhancee
Resilience

Multiple Benefit Strategies to Combat Climate Change

A photograph of a dense, green forested mountain. The sun is positioned behind the peak, creating a dramatic lens flare effect with multiple rays of light extending across the sky. The sky is filled with soft, white clouds. The overall scene conveys a sense of natural beauty and environmental health.

NATURE HOLDS A POWERFUL SOLUTION

NATURE CAN
MITIGATE AT LEAST
20% OF HUMAN
CARBON EMISSIONS

Responses Needed...

Reduce GHG emissions



Reform land management



Increased carbon storage



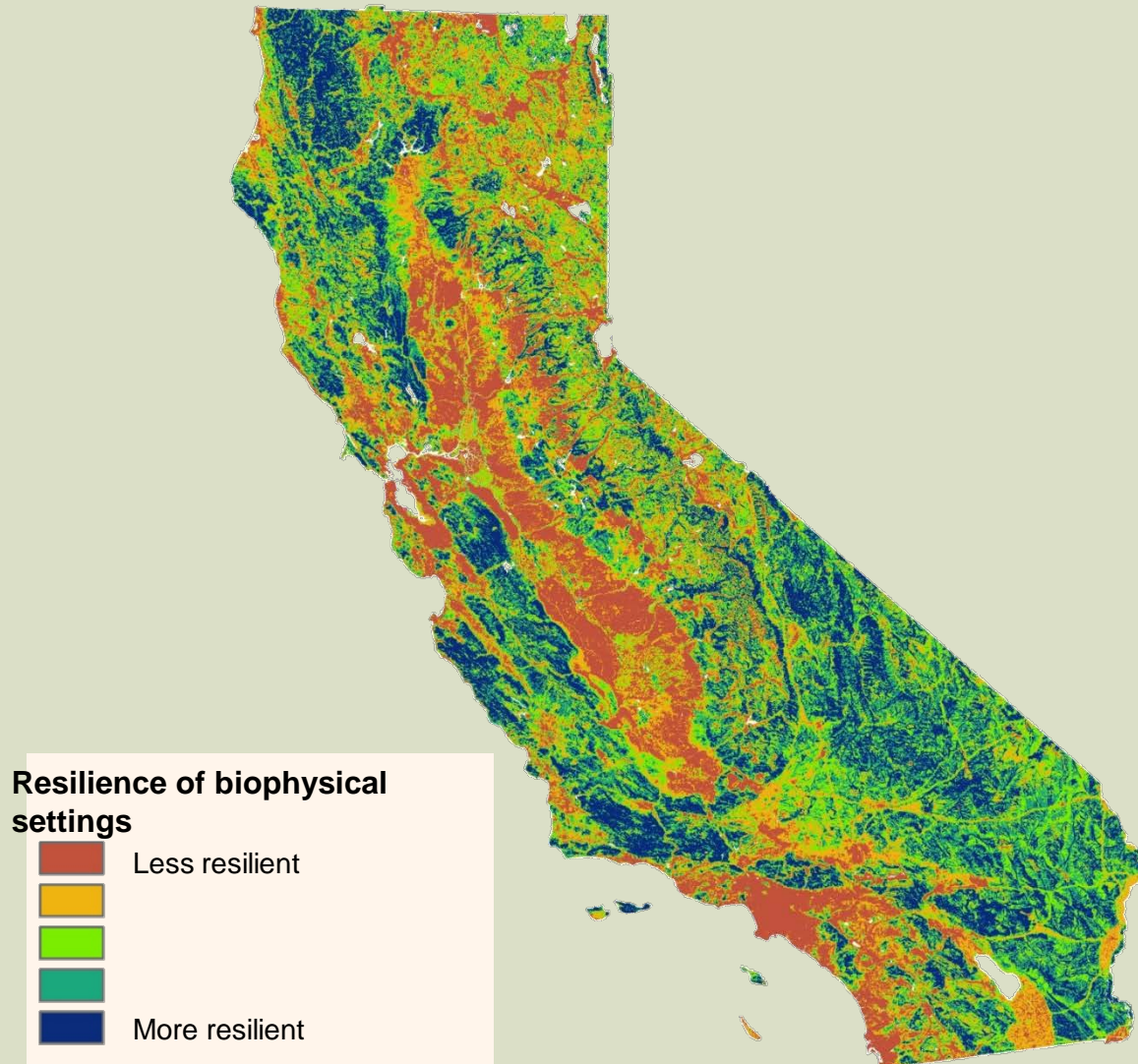
Enhance resilience



Integrated policy framework



Planning for Response: Identify areas with high potential for resilience



The Nature Conservancy, in prep.

California on Track for 2020 Goals

California economy continues to grow while becoming more efficient



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Funding for Conservation – 2 Ways

Forest Offsets

6.2 mmt CO₂e

Appx. \$60 mil.

Green House Gas Fund

\$900 mil. FY 16-17

\$145 mil.

Forests

Urban forests

Urban greening

Range land

Soil

Nature reduces risk and enhances resilience

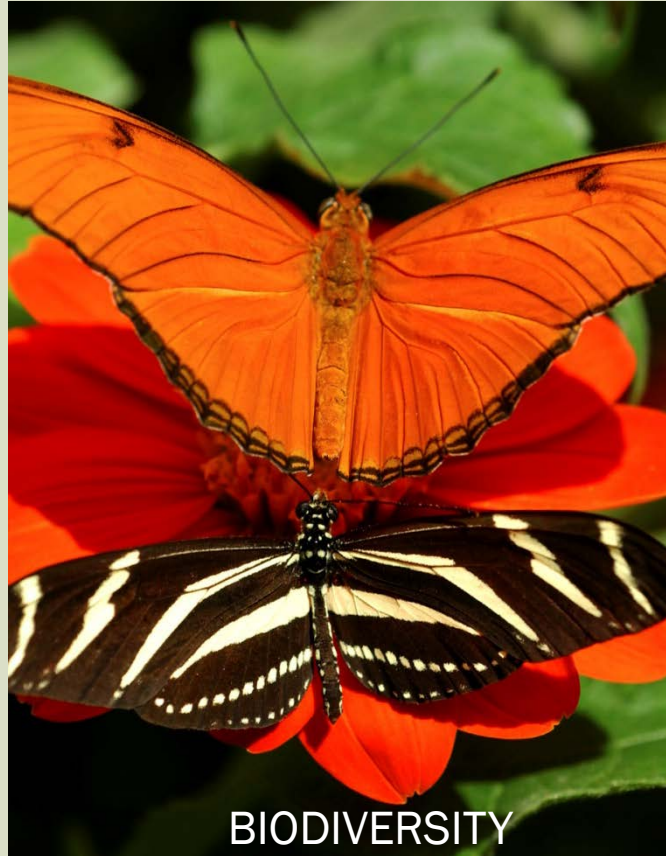
- Cost effective
- Proven
- Flexible
- Popular
- Multi-benefit



Recommendations

- Incorporate climate change as standard practice
- Prioritize natural solutions
- Integrate “mitigation” and “adaptation”
- Promote connection between people and natural resources
- Establish uniform carbon accounting for land
- Capitalize city and state climate action

Climate, Biodiversity and much more



Thank you

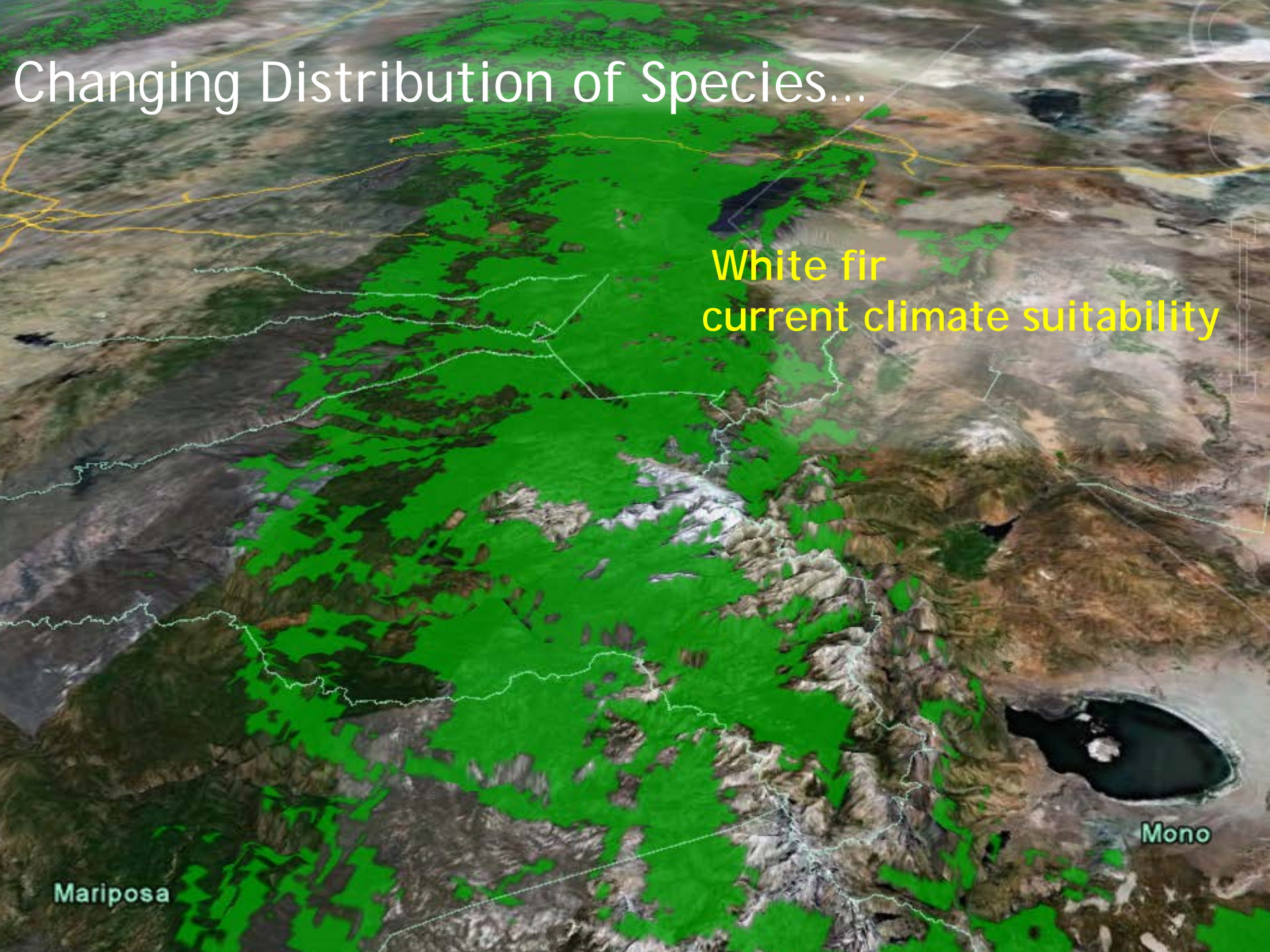
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Changing Distribution of Species...

White fir
current climate suitability

Mariposa

Mono



Changing Distribution of Species...

White fir
2050 climate suitability
(medium high emissions)

Mariposa

Mono

