

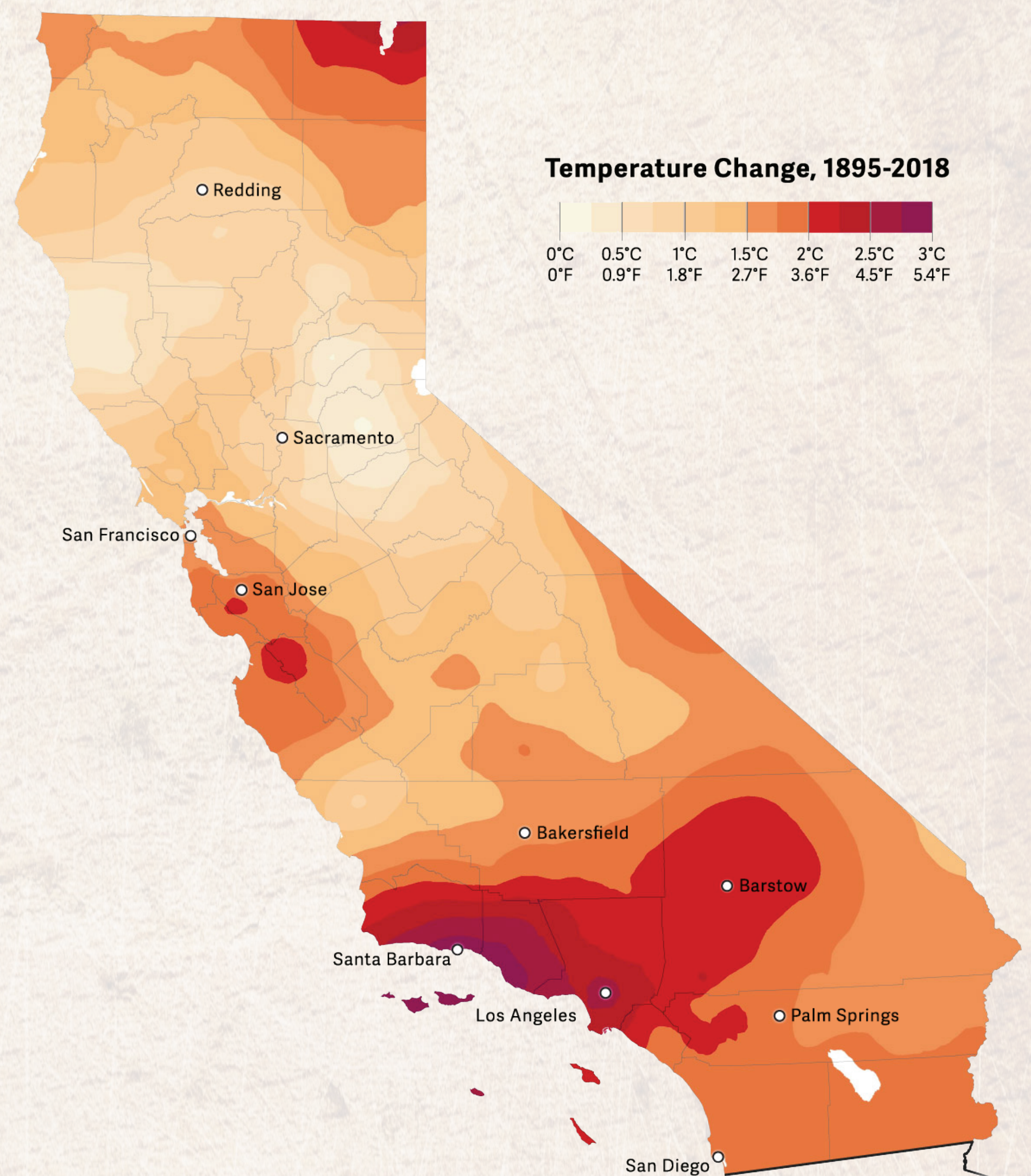
CALIFORNIA WEATHER PATTERNS & CLIMATE CHANGE

California has long had a predictable weather pattern: years of dry, warm weather, followed by years of a wetter climate. Now, climate change is pushing these weather phenomena to the extreme.

The Golden State is both beautiful and diverse. From craggy ocean cliffs to magnificent redwood forests to rolling grasslands, and from cacti-laden deserts to snowy mountain peaks, many different ecological regions are found throughout the state. These natural landscapes are distinguished by variations in rainfall, temperature, elevation, geology, and the influence of cool coastal air.

All regions are affected by *climate change*: long-term shifts in temperatures and weather patterns. Since the 1800s, human activities have been the main driver of climate change. In California, the consequences of climate change have included intense droughts, water scarcity, severe fires, rising sea levels, flooding, catastrophic storms, and declining biodiversity.

This can be seen in recent years, which have broken numerous records. The 2018 wildfire season was, as of 2022, the deadliest and most destructive in California history. **2020 hosted five of the six biggest fires ever recorded in California**, and burned the largest-ever area of the state in recorded history. **In February 2022, researchers described California's recent drought years as the most severe in 1,200 years.** And, the sea level along California's coasts is projected to rise 20-55 inches by the end of the century, putting nearly 500,000 people at risk of flooding; mitigating flood risk in the state is already requiring new approaches as the changing climate patterns bring heavier storms.



Graphic courtesy Washington Post, 2019. Data from National Oceanic and Atmospheric Administration.

Climate change can also affect our health, our ability to grow food, housing access, and where and how we work. Extreme weather can lead to increased illnesses and death, whether from long-term exposure to wildfire smoke and air pollution (California already has the worst air quality in the nation), dangerous heat waves, or from the increasing frequency of natural disasters themselves.

There is still time to mitigate the effects of climate change on our state's weather patterns, but we must act soon.