



IMPACTS OF CLIMATE CHANGE ON THE SANTA YNEZ BAND OF CHUMASH INDIANS

Sea level rise, flooding, erosion, drought, air quality and changes in flora and fauna are threatening the physical, cultural, and spiritual health of the Tribe, its habitats and ecosystems, and its built environment.

For over 15,000 years the Chumash lived in a territory that encompassed approximately 7,000 square miles, extending along the coast from the Channel Islands and Malibu to Paso Robles, and inland to the San Joaquin Valley. The current Santa Ynez Chumash lands cover 1,526 acres in eastern Santa Barbara County.

Warming temperatures, increasingly variable precipitation, sea-level rise, wildfire, drought, and flooding have impacted the Tribe. The disturbance and extirpation of native plant and animal species have damaged the Tribe's ecosystem. These changes have collectively impacted traditional hunting and gathering practices, the timing of spiritual practices, loss of local food, medicinal plants, and materials used for jewelry, boats, ceremonies, basketry, nets, and structures.

At Santa Ynez both daytime and nighttime temperatures are rising. During the 1980s the Tribe experienced 43 days with temperatures over 100 degrees. During the 1990s and 2000s there have been 74 and 76 days, respectively, of temperatures over 100 degrees. From 2010-2020 the tribe has suffered 130 days of temperatures over 100 degrees.

As nighttime temperatures increase, people do not have the chance to cool down. In the traditionally temperate area of Santa Ynez, people are not physiologically acclimated to

higher temperatures. The Tribe currently does not have enough cooling centers to help members in need during times of extreme heat. The Tribe has had to adjust the timing of ceremonies as a result of increased temperatures and heat waves.

Santa Ynez Chumash Tribe is experiencing more, and more intense, dry years. Prior to 1950, dry years occurred 26 times, three of which were classified as extreme drought. From 1951 to 2021 Santa Ynez experienced 35 dry years, including eight years of extreme drought.

The Tribe has observed that ground water levels on the Santa Ynez reservation have dropped due to drought, and plants are migrating to higher elevations or are not propagating due to a combination of drought and extreme heat.

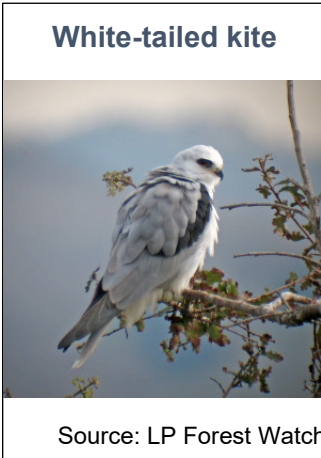
Many of the species threatened by climate change are considered important species to the Santa Ynez Chumash such as: Belding's Savannah Sparrow, red-legged frog,

Chumash paddlers in a tomol



Source: NPS

tidewater goby, steelhead, snowy plover, willow flycatcher, white-tailed kite, monarch butterfly, coast newt, pond turtle, and brown pelican. Both Chia Sage (*Salvia columbariae*) and Chuchupate (*Ligusticum porteri*) are no longer found in the area and grow only at higher elevations.



The Zanja de Cota Creek that flows through the reservation used to be the site of steelhead fishing derbies. However, in recent years, there have been no steelhead remaining in the creek.

The Chumash are seeing increased flooding. In the first 130 years of flood records the Santa Ynez Chumash endured four major floods, while in the last 30 years the Santa Ynez Chumash people have experienced five major floods.

Sea level rise and the resulting erosion are already impacting important Chumash cultural sites along the coast. Without access to these traditional sites, Tribal knowledge can be

disrupted, and the weight of that loss is felt by generations of Tribal members.

Additionally, while sea water intrusion is not expected to impact the Santa Ynez Reservation directly, the impact of sea water intrusion on other aquifers will likely increase dependency on the other groundwater basins between the Santa Ynez Mountains and the Pacific Ocean.

Prior to the 1950s, the greater Santa Barbara area averaged one large fire per decade; however, the number of large fires within and adjacent to the County has increased substantially over the last ten years. There were 27 large fires within Santa Barbara County between 1955 and 2020, translating to a significant fire every 2.4 years.

Burned areas that are then subjected to heavy rain will be subject to flooding, landslides and rockfalls. Cleanup of burned areas can expose cultural artifacts and destroy sites important to the Tribe.

Climate change continues to deeply affect the Santa Ynez Chumash Tribe and alter and disrupt the ecosystems within and around Santa Ynez. The community is actively working to manage and protect their lands and limit the impact climate change is having on the Santa Ynez Chumash Tribe's right to hunt, fish, gather, and continue their cultural practices; activities that are integral to their cultural and psychosocial health, well-being, and livelihood.