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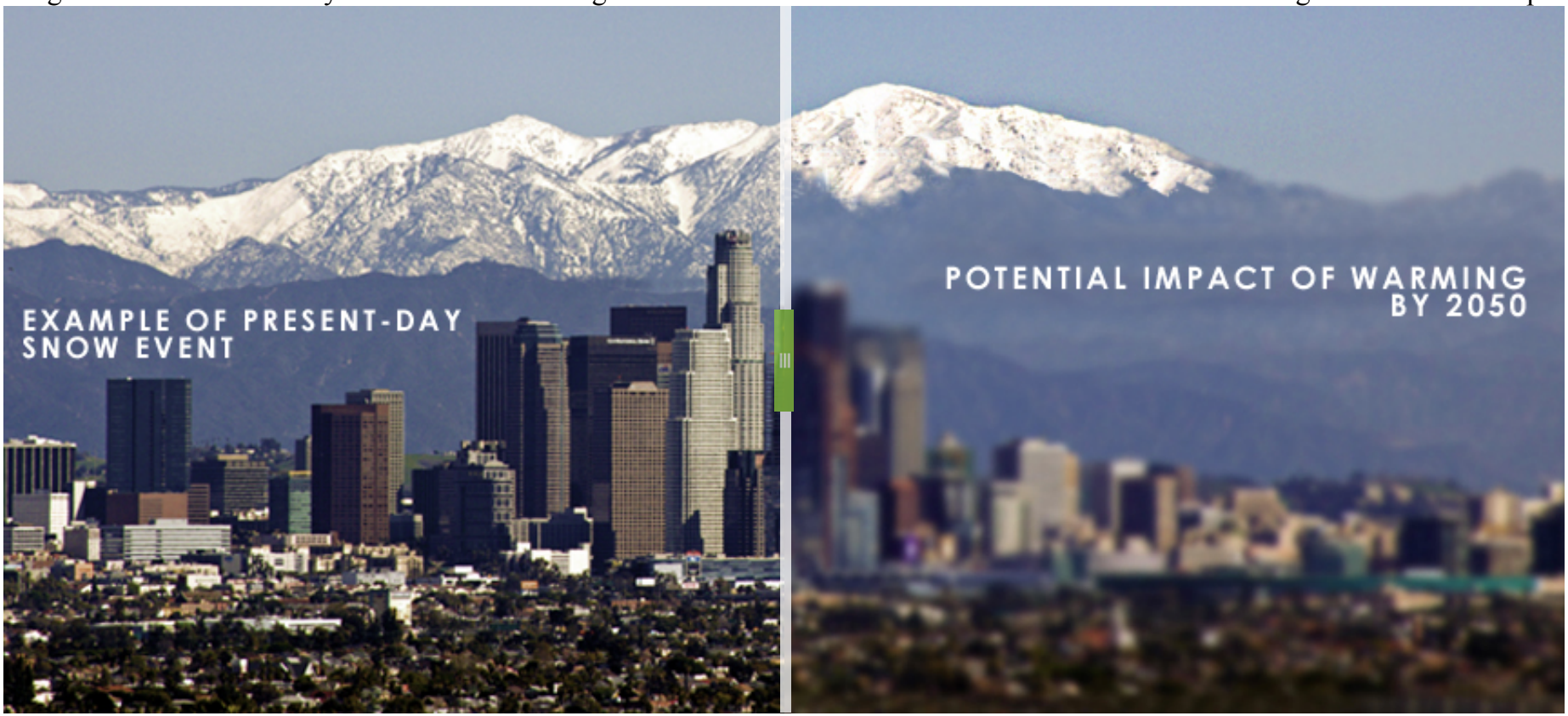
Snowfall

Drag middle bar or click anywhere on the rendering. Rendering Credit: Jacob Cooper



Show before Show after

Note: Images are intended as a visual representation of the scale of potential impacts. Model results pertain to average change in annual snowfall rather than impact on any particular snowfall event. Image Credit: Bob Bernal

To help understand the impacts of climate change in Los Angeles, Climate Resolve teamed up with the City of Los Angeles and UCLA's Institute of the Environment and Sustainability to publish a series of groundbreaking studies that reveal how climate change directly impacts Los Angeles. *Mid- and End-of-Century Snowfall in the Los Angeles Region* is the second in the series to consider regional climate impacts throughout Los Angeles. This study details stunning impacts to regional mountains.

A Changing Landscape

Los Angeles has long been known as an iconic region where you can hit the slopes in the mountains in the morning and make it to the beach to catch the waves by sunset. As our climate changes, this may no longer be a reality.

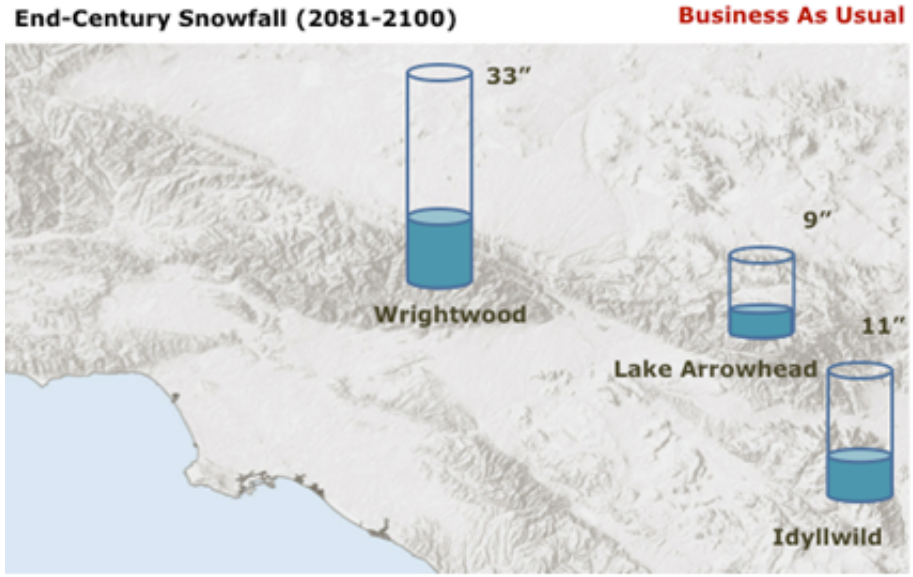
By 2050, Los Angeles area mountains will lose a substantial amount of snowfall:

- The region's mountains may see a reduction in snowfall of up to 42% of their annual averages, if greenhouse gas emissions continue to increase.
- If immediate efforts are made to substantively reduce emissions through mitigation, mid-century loss of snow will be limited to 31%.

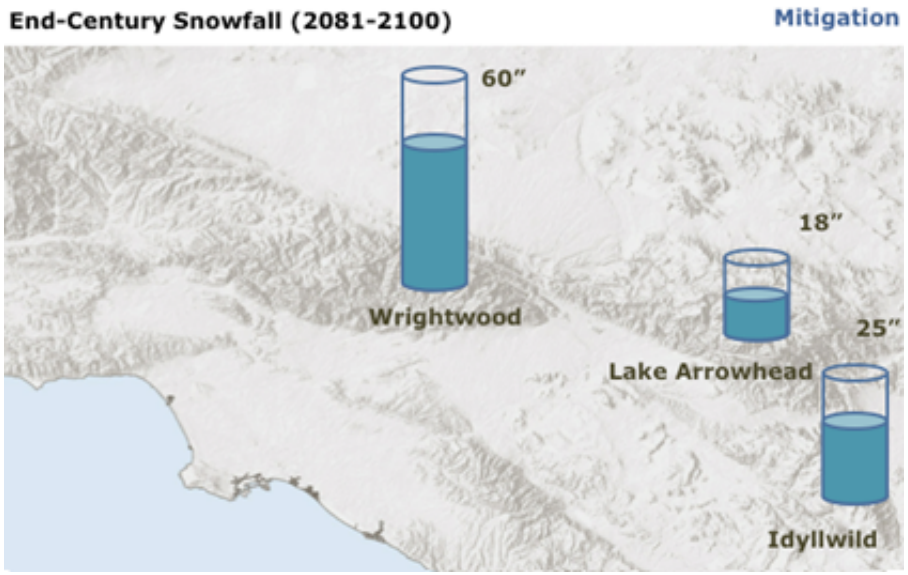
By the end of the century, the contrast between action and inaction is stark:

- Under the mitigation scenario, the loss of snowfall stabilizes and is not much worse than the 31% seen by mid-century.
- However if emissions are not curbed, the mountains will lose 66% of their snowfall by the end of the century, compared with present day.

This study provides the best-yet estimates of how climate change will impact snowfall in Southern California mountains, including communities of Wrightwood, Lake Arrowhead, Big Bear and Idyllwild. They are the only estimates available that assess climate change on a community-by-community scale.



The study's results indicate that whether or not we take action to rein in greenhouse gas emissions, substantial snowfall loss by mid-century is inevitable, and we have to adapt to these changes. However, by end-of-century, cutting greenhouse gases curbs further loss of snowfall—indicating that mitigation is an important strategy for preserving snow in the region.



Impacts on Angelenos

Although this study addresses climate change impacts on snowfall only, rising temperatures are also very likely to accelerate melting of snowpack accumulated on the ground. Scientists predict that, by 2050, seasonal snowpack is likely to melt completely an average of 16 days earlier than usual in the spring.

Less snowfall during the winter, combined with earlier snowmelt during the spring, indicates drastic changes are possible, altering important hydrological and ecosystem processes. Further research is needed to understand more specifically what to expect in terms of future water resources and critical habitat for plant and animal communities.

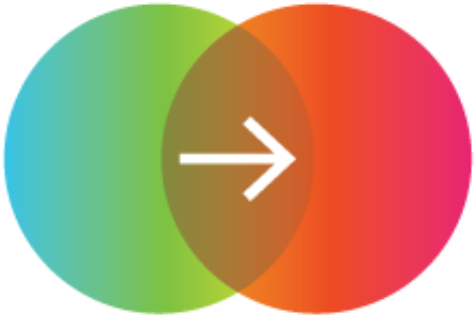
Learn more about what you can do to help mitigate climate change.

Download the Snowfall Study
Download the Summary of Findings

The Climate Change in the Los Angeles Region Project

This study is the second in a series being conducted by atmospheric scientists at UCLA, employing an innovative technique for applying global climate models to the Los Angeles region to provide detailed projections of climate change. The first study in the series, *Mid-Century Warming in the Los Angeles Region*, was released in June 2012.

Learn more about the science behind these ground-breaking reports.



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