

# California says oceans could rise higher than thought

April 27 2017, by Ellen Knickmeyer

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New climate-change findings mean the Pacific Ocean off California may rise higher, and storms and high tides hit harder, than previously thought, officials said.

The state's Ocean Protection Council on Wednesday revised upward its predictions for how much water off California will rise as the climate warms. The forecast helps agencies in the nation's most populous state plan for climate change as rising water seeps toward low-lying airports, highways and communities, especially in the San Francisco Bay Area.

Discoveries that ice sheets are melting increasingly fast in Antarctica, which holds nearly 90 percent of the world's ice, largely spurred the change.

As fossil-fuel emissions warm the Earth's atmosphere, melting Antarctic ice is expected to raise the water off California's 1,100 miles (1,770 kilometers) of coastline even more than for the world as a whole.

"Emerging science is showing us a lot more than even five years ago," council deputy director Jenn Eckerle said Thursday.

Gov. Jerry Brown has mandated that state agencies take climate change into account in planning and budgeting. The council's projections will guide everything from local decisions on zoning to state action on whether to elevate or abandon buildings near the coast and bays.

In the best-case scenario, waters in the vulnerable San Francisco Bay, for example, likely would rise between 1 foot and 2.4 feet (one-third to three-fourths of a meter) by the end of this century, the ocean council said.

However, that's only if the world cracks down on climate-changing fossil-fuel emissions far more than it is now.

The worst-case scenario entails an even faster melting of Antarctic ice, which could raise ocean levels off California a devastating 10 feet by the end of this century, the state says. That's at least 30 times faster than the rate over the last 100 years.

Scientists say rising water from climate change already is playing a role in extreme winters such as this past one in California, contributing to flooding of some highways and helping crumble cliffs beneath some oceanfront homes.

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