



EMBARGOED UNTIL JUNE 11
at 12:01 AM Pacific Time

Contacts: Dr. Ben Strauss, 609-613-0832
bstrauss@climatecentral.org
Richard Wiles, 609-986-1997
rwiles@climatecentral.org

SACRAMENTO AND STOCKTON FACE BIGGEST SEA LEVEL RISE THREAT IN CALIFORNIA

Host State's Largest City Populations on Low-Lying Lands

New Online Tool Shows Social Impact

PRINCETON, N.J. – Whether sea levels rise 1 foot this century or 10 feet, Stockton and Sacramento – among all California cities – have the two largest populations currently living on land below that level, according to new research by Climate Central. Approximately 55,000 Stockton residents and 22,800 in Sacramento live at elevations that have already been exceeded by historic tides and storms in San Francisco Bay, 3 feet above the high-tide line. The complex network of levees in the Sacramento-San Joaquin River Delta helps protect area residents today but is already under stress from land that has been sinking since much of the Delta was first drained for agriculture.

“Sea level rise means more coastal floods, reaching higher – and that’s already happening today, long before the threat of permanent submersion,” said Dr. Ben Strauss, study lead and Climate Central’s vice president for climate impacts. “Ongoing rise will add critical stress to the levee system that protects Sacramento, Stockton and much of California’s fresh water supply.”

Sixty percent of the exposed Stockton and Sacramento population also have high social vulnerability – generally associated with low income and ethnic minority communities, and indicating greater challenges in preparing for or recovering from disasters. In addition to the people at risk, \$7.5 billion of property value in Stockton and Sacramento sit below 3 feet, as do 254 miles of road, 25 schools, and 33 EPA-listed sites that are potential sources of contamination (all but one in Stockton).

A [new interactive online tool](#) offers new research results in unprecedented detail, bringing the human story to the forefront and mapping threats from neighborhood to state level, by decade, and for more than 100 topics, from schools to hospitals to heavy infrastructure. The embeddable map component of the tool was developed through collaboration among Climate Central, Stamen Design, and New America Media.

State Releases

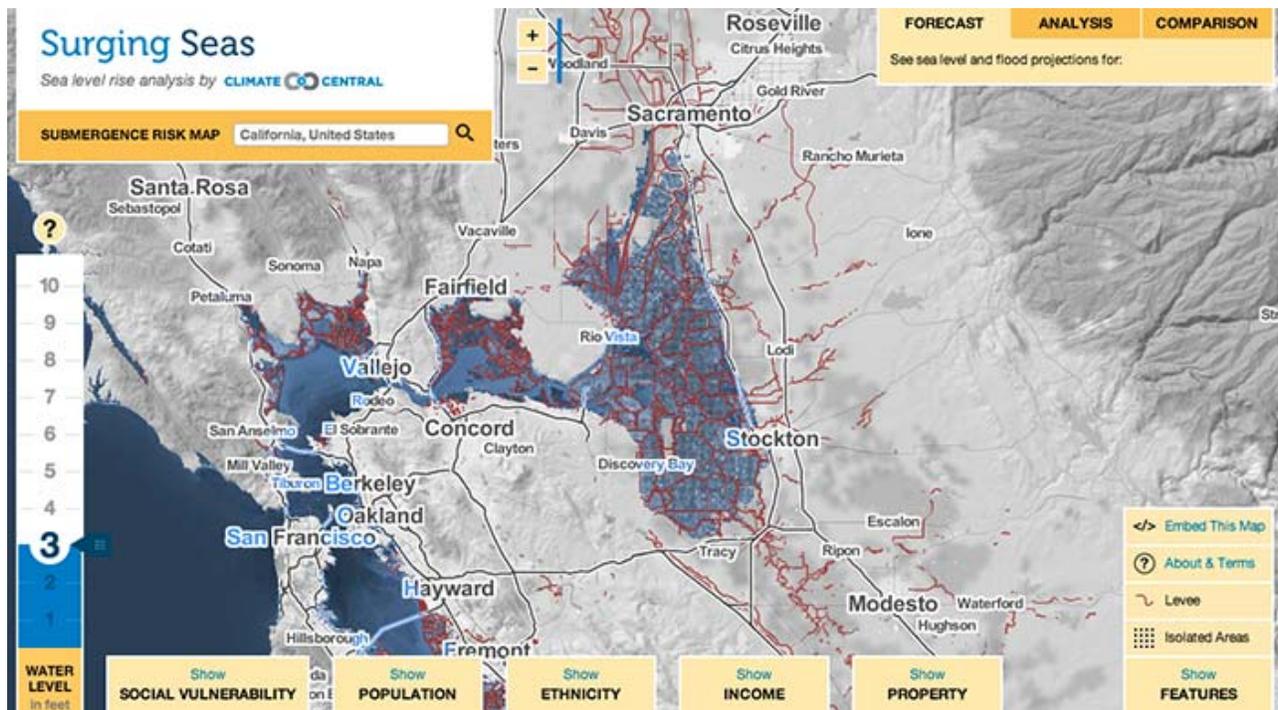
[California](#)
[Oregon](#)
[Washington](#)

Local Releases

[LA County](#)
[San Mateo County](#)
[Sacramento/Stockton](#)

Embed the map below at: [600x563](#) | [500x463](#)

For custom embed, navigate to any location, zoom, etc [on map](#), click "Embed this map" (bottom right)



[Click image to explore embedded map](#)

Using historic local flood statistics plus rapid local sea level rise projections from the National Research Council, Climate Central's analysis found that by midcentury, floods would reach greater than 3 feet above the high tide line every year in San Francisco Bay. By 2070, they would reach greater than 4 feet every year – or greater than 3 feet annually under a mid-range sea level rise scenario from the Council. In 75 years of historic observations, the highest-ever recorded flood in the Bay reached 3.05 feet at the Alameda tide gauge in 1983. The Bay's tidal influence reaches all the way to the eastern Delta.

Dr. Ben Strauss is available for interviews on

Monday, June 9 (3-5pm ET / 12-2pm PT)

Tuesday, June 10 (2-4pm ET / 11am – 1pm PT)

Phone: 609-613-0832 Email: bstrauss@climatecentral.org

Over the past 20 years, sea level has been rising at nearly double the 20th century average rate. Research published this May indicates that the West Antarctic Ice Sheet [has begun an unstoppable collapse](#) that will lead to [10-plus feet of rise](#) over two-plus centuries, the maximum range of Climate Central's map and analysis. Other research out this spring indicates that Antarctic ice loss rate has recently doubled, and that Antarctica contributed more than 6 feet of sea level rise per century during a geologically recent warming episode. None of this has yet been factored into current sea level projections.

Drawing on data from more than 10 federal agencies, Climate Central is developing research and tools for every coastal state. This launch adds California, Oregon and Washington, [bringing the total complete to 11](#). The launch also features a major map upgrade, showing for the first time how vulnerability to sea level rise intersects with race, ethnicity, and per capita income levels.

“We chose a simple but powerful map design to bring out the human dimension of this problem: one dot per individual who could be affected.” Stamen founder Eric Rodenbeck said. “Real humans will be seriously affected by rising sea levels.”

- [Click for map of exposed population by race and ethnicity](#)
- [Click for map of exposed population by social vulnerability level](#)
- [Click for map of exposed property by value](#)
- [Click for summary Sheet for Stockton](#)
- [Click for summary Sheet for Sacramento](#)

“Sea level rise affects more immigrant and minority communities than whites in the Bay Area, according to both our own and Climate Central’s analysis, which counters the perception that sea level rise affects only wealthy, predominantly white homeowners who live by the water,” said Ngoc Nguyen, environment editor at New America Media.

Nguyen led a collaborative reporting project involving six Bay Area ethnic and community media reporters. “We found that communities are responding, but there is a dangerous information gap about sea level rise and policies to address it among impacted ethnic communities.”

For more information about Stamen, contact Bill Conneely (415-558-1610). For New America media, contact Ngoc Nguyen (415-503-4170).

Special note on timing of URLs available to public:

- **Map:** [Final version live today](#), shared only with journalists under embargo.
- **Full tool and analysis:** Staging server version live today, under embargo. Will migrate to final, public server on June 11, and links will automatically redirect to final URLs.
- **California homepage:** Not currently viewable. Will go live June 11 at <http://sealevel.climatecentral.org/ssrf/California> (see [Florida](#) for a live example)

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