



City of Santa Cruz Climate Adaptation Plan

The City of Santa Cruz Climate Adaptation Plan identifies the infrastructure and resources most vulnerable to climate change impacts, including critical transportation infrastructure. The plan also presents climate adaptation action items ranked by priority based on risk to the community.

Santa Cruz, California is situated along Pacific Ocean cliffs and Monterey Bay beaches, surrounded by a greenbelt of open space areas, with a river running through its downtown and tourist-serving areas. These features increase its vulnerability to the impacts of climate change. The Climate Adaptation Plan was approved in December of 2011, identifying the City's most significant potential climate change risks and vulnerabilities, defining the actions to guide current and future adaptation planning, and creating a framework for decision makers to build a more resilient and sustainable community, informed by the most current climate science. The Adaptation Plan is an update to the Local Hazard Mitigation Plan developed in 2007.

The Adaptation Plan responds to the City's Vulnerability Study, which was released in January 2011 by the City of Santa Cruz Climate Action Team in collaboration with University of California at Santa Cruz scientists. The Federal Emergency Management Agency (FEMA) funded the research with a \$50,000 grant. The vulnerability study identified the most pressing climate change impacts, and was the basis for development of the potential goals, objectives and actions that will build adaptive capacity into policies, programs and infrastructure, as outlined in this plan.

Many potential local impacts of climate change were identified in the vulnerability study and detailed in the Adaptation Plan. Those most relevant to transportation include: sea level rise, flooding, severe storm/weather events, coastal erosion, and increasing temperatures. The Adaptation Plan looks at the resilience of the City's infrastructure, such as roads and bridges, particularly in relation to flooding and sea level rise.

Chapter 4 presents the overall Adaptation Strategy for the City. The City identified 41 potential climate adaptation action items, which were developed through an inclusive departmental and community process. Action items that address climate impacts with the highest risk to the community (as identified in the vulnerability study) were given priority rankings. According to the vulnerability study, sea level rise and extreme storm events have the potential to cause the greatest economic and human losses. Action items, along with initial suggestions for implementation, identification of lead departments in the City, preliminary estimates of resources required and general timeline, are ranked by priority and detailed.

The only transportation measure identified among the "very high priority" action items is the replacement of the Highway 1/Highway 9 Bridge. Santa Cruz's downtown is located within a floodplain, along the banks of the San Lorenzo River. Four bridges across the river connect the two sides of the city; loss of just one of these bridges would cause significant problems and traffic impacts. Most of the bridges across the San Lorenzo River that exacerbated or were damaged by flooding have already been replaced, but the Highway 1/Highway 9 Bridge





still requires full replacement. The bridge is vulnerable to potential flooding due to its low flood clearance and the number and angle of piers in the river. Additionally, the bridge acts as a debris-catching obstacle, creating a barrier during storms and contributing to flood water

buildup in the upper San Lorenzo River. The City is proceeding with a proposal to replace the bridge; the Santa Cruz City Council voted unanimously in May 2013 to seek state approval to construct a new bridge.

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For More Information:

<http://www.cityofsantacruz.com/home/showdocument?id=23644>

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