



CLIMATE CHANGE RESEARCH PROGRAM
GRANT AWARD



UNIVERSITY OF CALIFORNIA, BERKELEY

SEA LEVEL RISE, HAZARDOUS SITES, AND ENVIRONMENTAL JUSTICE IN CALIFORNIA

PRINCIPAL INVESTIGATOR: **Rachel Morello-Frosch**, Professor, Department of Environmental Science, Policy and Management

PROJECT GRANT \$688,168.00 Duration: 31 Months	PRIORITY RESEARCH AREAS <input checked="" type="checkbox"/> Supporting and Protecting Vulnerable Communities from the Impacts of Climate Change <input checked="" type="checkbox"/> Increasing Data Accessibility and Planning Support for State, Local, and Regional Climate Change Planning
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This research conducts a holistic examination of the environmental health and social equity implications from the risks of sea level rise (SLR) to property and infrastructure. It will assess the threats posed by SLR and flooding of hazardous sites to socially disadvantaged populations across the state. Researchers will perform integration and statistical analysis of multiple spatial data sets, including state-of-the art, high-resolution SLR projections based on a wide range of emissions scenarios and modelling assumptions. Environmental justice organizations and researchers will partner to broadly disseminate research findings to policy makers and impacted communities through the news media and via webinars, workshops, and briefings with community, non-profit, academic, and government stakeholders.

PARTNERS:	<ul style="list-style-type: none"> ➤ Asian Pacific Environmental Network (APEN) ➤ California Environmental Justice Alliance ➤ Center for Climate Change & Health ➤ Central Coast Alliance United for a Sustainable Economy (CAUSE) ➤ Climate Central ➤ Physicians for Social Responsibility – Los Angeles ➤ San Francisco State University
RESEARCH ACTIVITIES	Characterize threats posed by SLR and flooding of hazardous sites to socially disadvantaged populations in California. Integrate information on hazard sites and indicators of social disadvantage into a searchable bilingual (English/Spanish) online mapping interface that provides customizable visualizations and data about SLR projections. Disseminate study findings among public health and environmental justice advocates, decision-makers and the broader public in order to catalyze adaptation planning to protect vulnerable communities.
FACILITATES GREENHOUSE GAS EMISSIONS REDUCTIONS	Build broad public support for policies and actions to reduce greenhouse gas emissions in California by producing and disseminating compelling visualizations of future SLR under different emissions scenarios in a searchable, customizable, and widely accessed web-based interface.
BENEFITS DISADVANTAGED AND LOW INCOME COMMUNITIES:	Develop new analyses to characterize the health risks of toxic exposures posed by inundation of hazardous sites due to sea level rise (SLR) in California to benefit coastal disadvantaged communities as identified by CalEnviroScreen. By providing broad access to detailed projections, maps, data, and analysis, this research will provide critical information to inform statewide climate adaptation planning as well as decision-making tools relevant to local and regional land use planning and emergency preparedness, resulting in benefits to disadvantaged communities in the form of more resilient communities.
ENGAGEMENT ACTIVITIES	Establishes a team of academic, non-profit, and community partners in the project’s research design and implementation. Community-based environmental justice organizations in the San Francisco Bay Area, Central Coast, and Southern California will engage potentially impacted community residents in the research design and dissemination of findings employing community-based participatory research, with partner organizations serving on an advisory committee guiding all of the research stages ensuring that outcomes are actionable, policy-relevant, and culturally and linguistically appropriate.