

Engaging Vulnerable Communities and Climate Action Coalitions in Climate Adaptation Planning: A Case Study of Oakland CA

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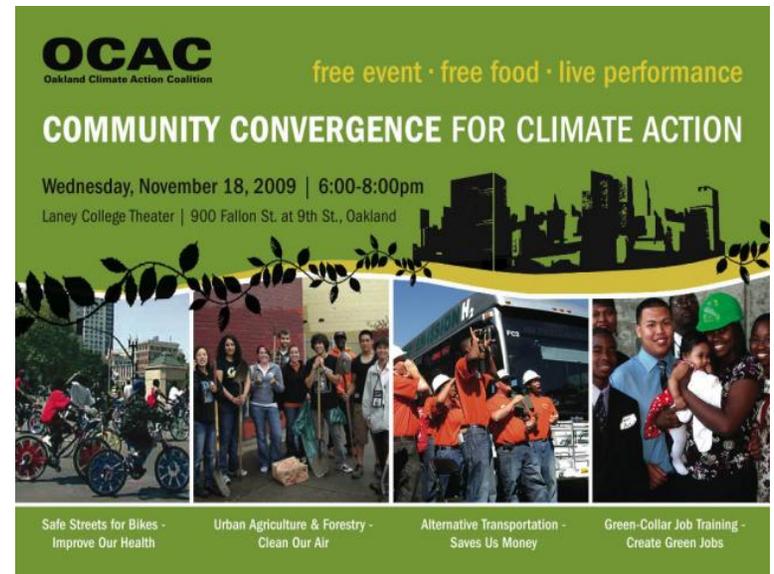
Project Partners

- **Pacific Institute (PI)**

Oakland-based research institute focusing on environmental protection, economic prosperity, and social equity

- **Oakland Climate Action Coalition (OCAC)**

Cross-sector coalition that advances social equity in the development and implementation of Oakland CA's Energy and Climate Action Plan



Methodology

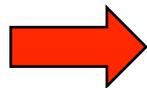
2010

2011

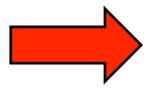
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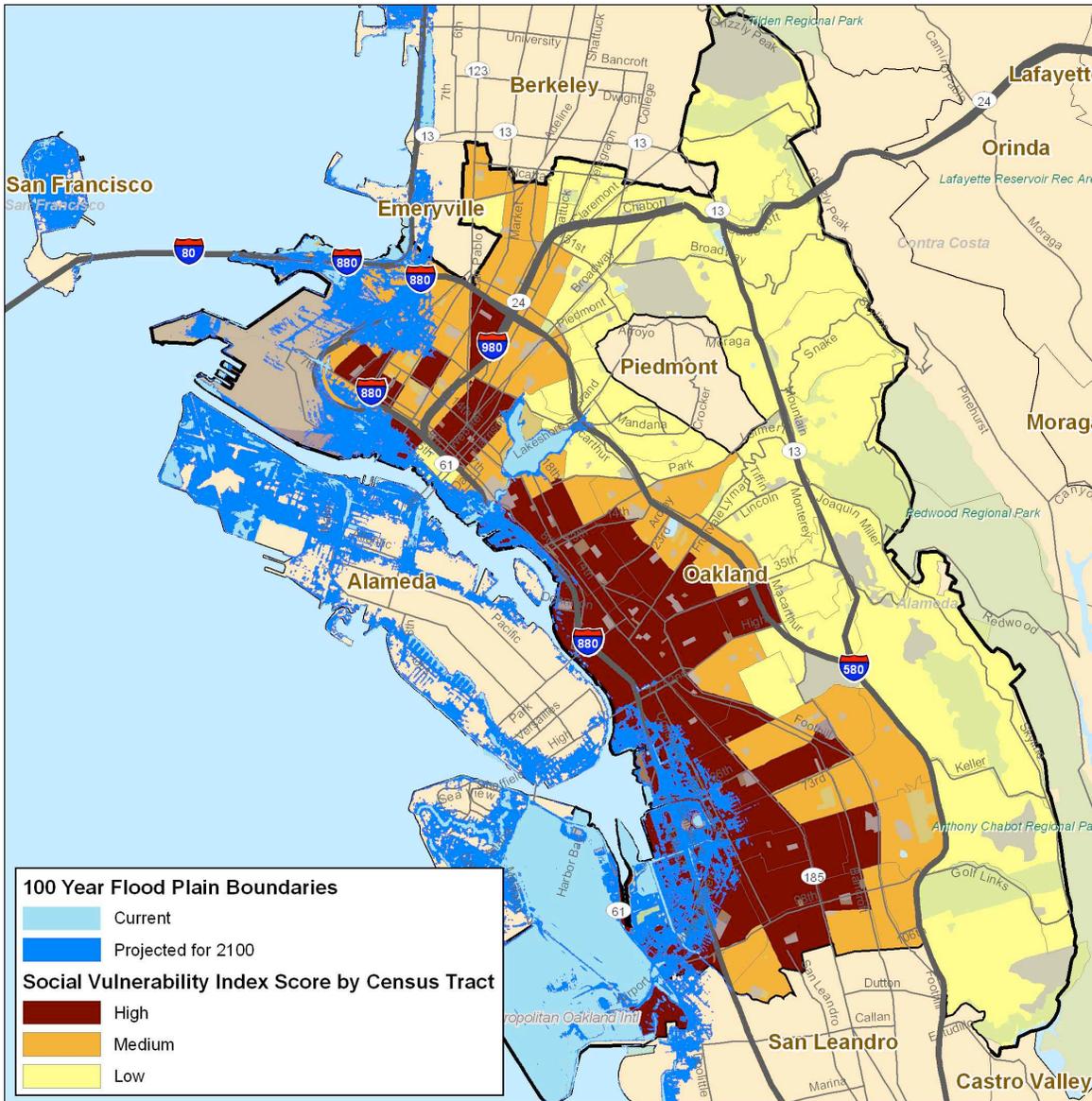
Creating an Overall Social Vulnerability Index



Vulnerability Factor	Indicator	Data source
Households with air conditioning	Households with an air conditioning unit	Survey by the California Energy Commission
Population over 25 with a diploma	People over age 25 who have a high school diploma	U.S. Census, American Community Survey (2005-9)
Born outside the U.S.	People who were born outside the United States	U.S. Census, American Community Survey (2005-9)
Impervious areas	Land in the area that has an impervious surface (e.g. sidewalk or roof)	Nat'l Land Cover Dataset (2001)
Residents living in institutions	Population living in "group quarters", including institutions like correctional facilities, nursing homes, and mental hospitals, college dormitories, military barracks, group homes, missions, and shelters.	U.S. Census, American Community Survey (2005-9)
Households with limited English	Population 5 years and over who answered that they speak English less than "very well"	U.S. Census, American Community Survey (2005-9)
Households with no vehicle	Percentage of households with no vehicle available	U.S. Census, American Community Survey (2005-9)
People of color	People identifying as any other race or ethnicity besides white.	U.S. Census, American Community Survey (2005-9)
Households in poverty	Households with an income that is below 200% of the official federal poverty level	U.S. Census, American Community Survey (2005-9)
Pre-term births	Infants that were born before completing 37 weeks (about 8.5 months) of pregnancy	Preterm birth rates by Census Tract for CA for 2006 from EHIP at CDPH. Eric Roberts.
Renter-occupied households	Percent of households where people are renting	U.S. Census, American Community Survey (2005-9)
Over 65 and living alone	Percent of households occupied by someone over age 65 who lives alone	U.S. Census, American Community Survey (2005-9)
Tree canopy cover	Land covered by tree canopy	Calculated by Jessdale et al using data from Nat'l Land Cover Dataset, 2001
Under age 18	Population under age 18	U.S. Census, American Community Survey (2005-9)
Unemployment	Population 16 years and over able to work who are unemployed	U.S. Census, American Community Survey (2005-9)
Have jobs working outdoors	Percent of workers who work in agriculture, forestry, mining, or construction	U.S. Census, American Community Survey (2005-9)
Pregnancy	Percentage of women 15 to 50 years old who had a birth in the past 12 months	U.S. Census, American Community Survey (2005-9)

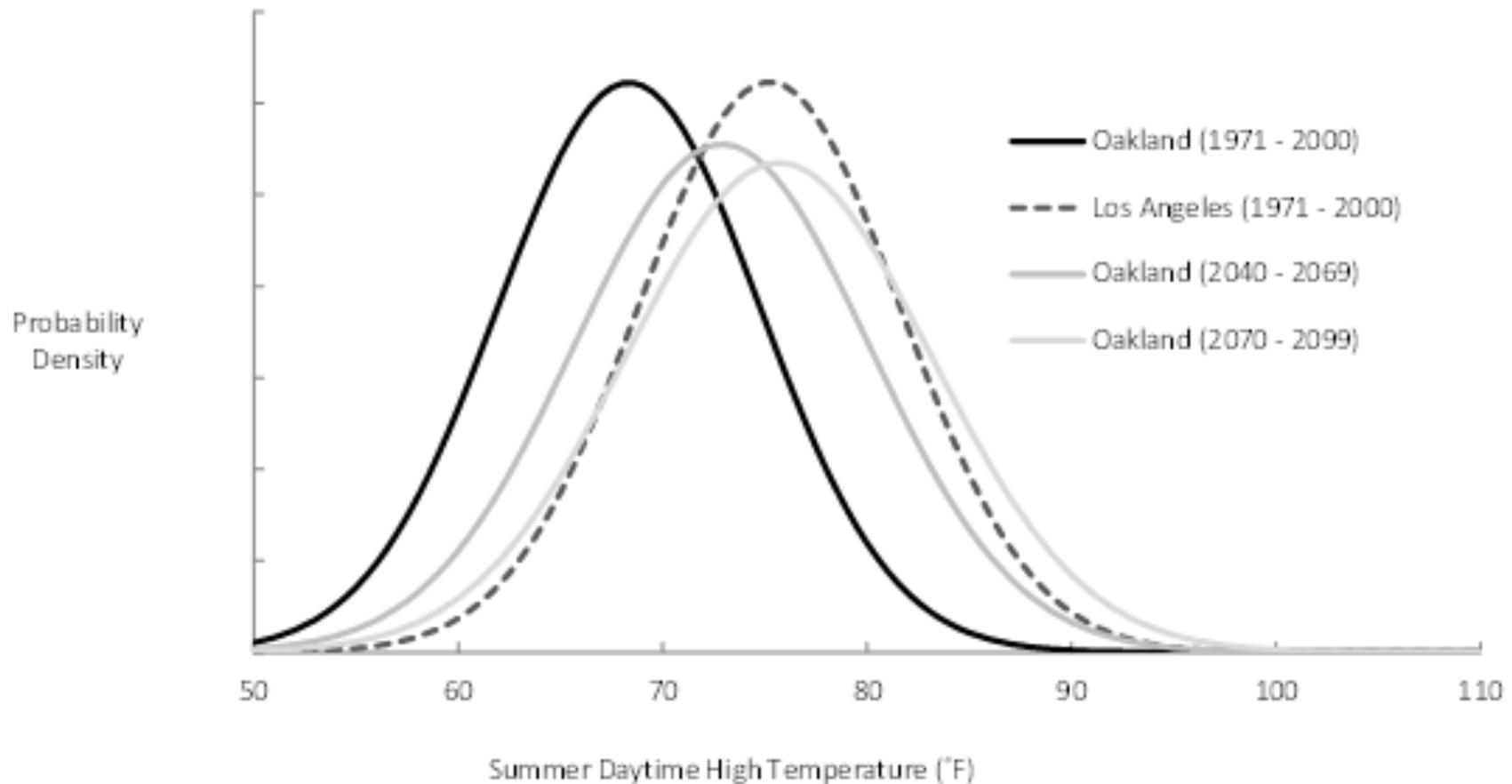


Coastal Flooding from Sea Level Rise



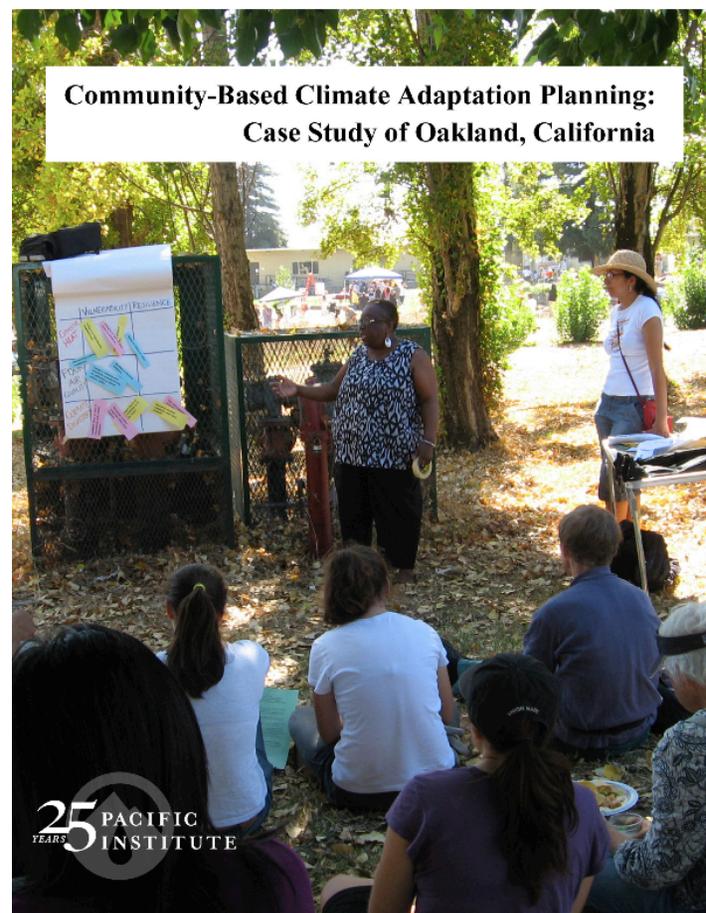
- About 56% of Oakland's residents are in areas of high social vulnerability
- 5,200 Oakland residents live in areas that will be in 100 year flood zone with a 1.4 meter rise in sea level
- Communities in the flatlands stand to be disproportionately impacted

Probability Distribution of Summer Daytime High Temperatures (A2)



Adaptation Options to Address Oakland Climate Impacts

- Engaged coalition members in identifying nearly 50 adaptation strategies for Oakland
 - Distributive justice (equitable access to resources, prioritizing overburdened communities)
 - participative justice (shared decision-making and community engagement)
- Worked with OCAC members to identify policy solutions to address social equity concerns



Popular Education To Build Community Resilience

- Community resilience fact sheets
- Climate Change Survivor game for community events
- Community asset mapping workshops
- Popular education activity guide



Acknowledgments

- Oakland Climate Action Coalition members
- California Energy Commission's Public Interest Energy Research (PIER) Program
- San Francisco Foundation
- East Bay Community Foundation

THANK YOU!

Download the full report at:

**[http://www.pacinst.org/reports/
oakland_climate_adaptation/](http://www.pacinst.org/reports/oakland_climate_adaptation/)**

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