

RESILIENCE PUBLIC POLICY AND IMPLEMENTATION IN CALIFORNIA

STRATEGIES FOR BUILDING STATEWIDE
RESILIENCE

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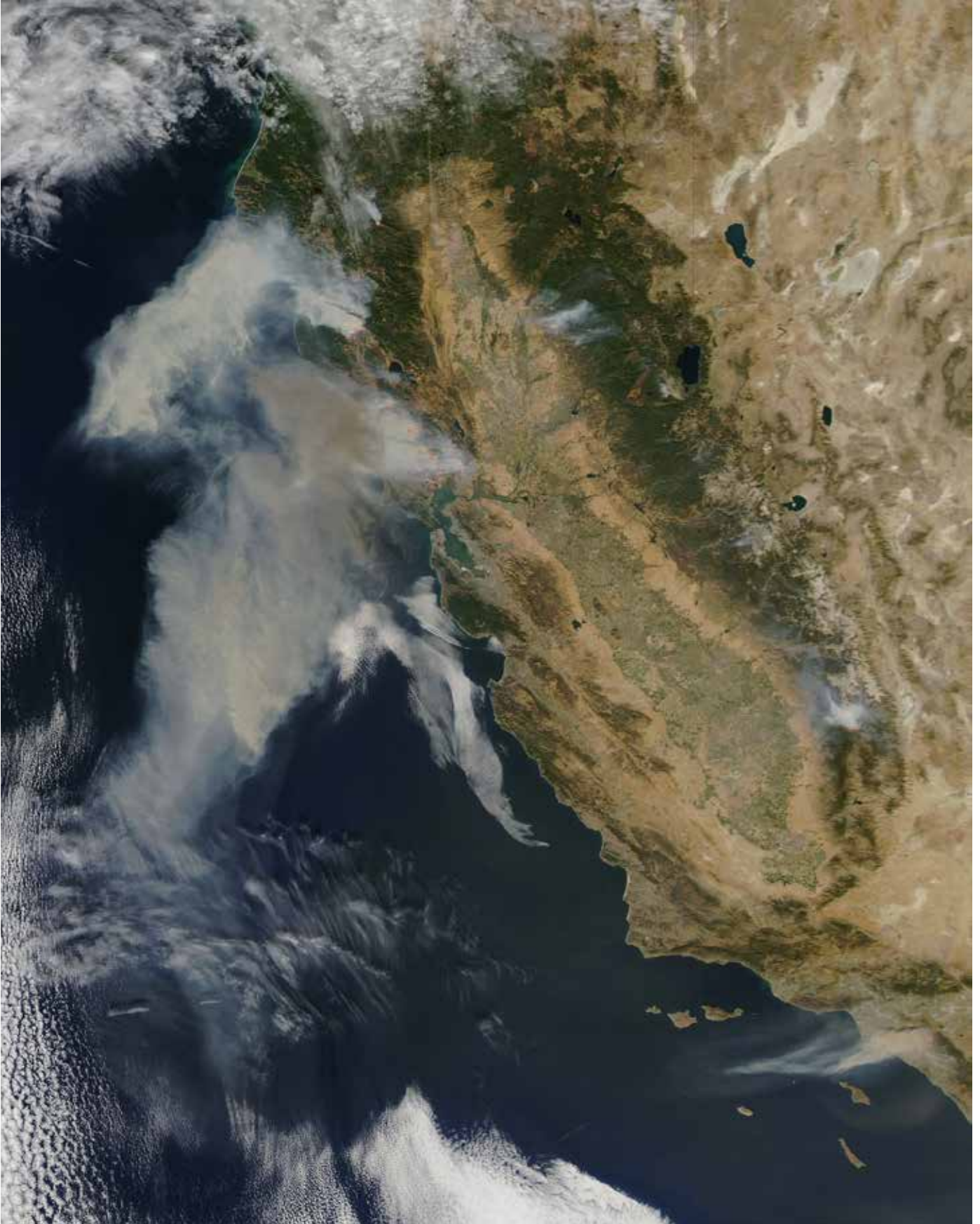
STRATEGIES FOR BUILDING STATEWIDE RESILIENCE

This document presents an overview of the state of resilience policy in California. California is a national leader in resilience public policy, practice, and investment. As the four California 100 Resilient Cities (100RC) municipal partners - Oakland, San Francisco, Berkeley, and Los Angeles - pivot from assessment to implementation, 100RC is considering what ongoing investments in these cities might look like, and how to best align these future efforts with ongoing state initiatives. To better support this effort, and considering the opportunity for change presented by new statewide leadership in 2019 with the election of Governor Newsom, 100RC seeks ways to connect local-level resilience implementation with state-level policy and actions.

Staff from the Metropolitan Transportation Commission/Association of Bay Area Governments, along with Urban Resilience Strategies, conducted a series of interviews with key stakeholders at local, regional, and state levels to identify policy gaps and opportunities and develop recommendations for improvement in the field. The guidance from interviewees, thought leaders, and community stakeholders frame the key goals of this paper: to understand the landscape of exemplary work taking place in the state, and to recommend strategies for how effective state, regional, and local policies, laws, regulations, and incentives can accelerate resilience actions.

This paper serves as a starting point for 100RC, the California Chief Resilience Officers, statewide agencies engaged in resilience policy, elected officials, local policy practitioners, and local government stakeholders who comprise California's resilience practice. The recommendations laid out in this paper are primarily aimed at the Governor and his office, but represent areas where 100RC can offer partnership and support to leverage and accelerate implementation. This work can also be used to coordinate local planning with philanthropic and legislative partners at the state level. Collectively, these programs and initiatives, with others, point to the statewide development of multi-sectoral resilience building.

Smoke from the October 2017 wildfires across California was visible from space. Source: NASA



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ACRONYMS

100RC	100 Resilient Cities
ABAG	Association of Bay Area Governments
BARC	Bay Area Regional Collaborative
BCDC	Bay Conservation and Development Commission
BCSH	California Business, Consumer Services, and Housing Agency
CalOES	California Office of Emergency Services
CCA	Community Choice Aggregation
CCC	California Coastal Commission
CDBG	Community Development Block Grant
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CGS	California Geological Survey
COG	Council of Governments
CRO	Chief Resilience Officer
CSSC	California Seismic Safety Commission
FEMA	Federal Emergency Management Agency
GARE	Government Alliance on Race and Equity
HCD	Housing and Community Development Agency
HIFIS	Haas Institute for a Fair and Inclusive Society
HOME	Home Investment Partnership Program
HMGP	Hazard Mitigation Grant Program
HTF	Housing Trust Fund
ICARP	Integrated Climate and Resiliency Program
LCP	Local Coastal Program
LGC	Local Government Commission
MPO	Metropolitan Planning Organization
MTC	Metropolitan Transportation Commission
NEPA	National Environmental Policy Act
NRA	California Natural Resources Agency
OEHHA	Office of Environmental Health Hazard Assessment
OPC	Ocean Protection Council
OPR	Governor's Office of Planning and Research
PACE	Property Assessed Clean Energy
RBD	Bay Area Resilient by Design Challenge
REN	Regional Energy Network
RHNA	Regional Housing Need Allocation
SGC	Strategic Growth Council
UCS	Union of Concerned Scientists

INTRODUCTION

100 Resilient Cities defines urban resilience as “the capacity of individuals, communities, institutions, businesses, and systems within a city to survive, adapt, and grow no matter what kinds of chronic stresses and acute shocks they experience.” Chronic stresses are slow moving disasters that weaken the fabric of a city. They can include high unemployment, overtaxed or inefficient public transportation systems, endemic violence and chronic shortages. On the other hand, acute shocks are sudden events that threaten a city, including regionally disruptive natural disasters, disease outbreaks or terrorist attacks. Resilient cities adapt and transform in the face of challenges, preparing for both the expected and unexpected and strengthening cities on blue-sky days as well.

Building resilience requires a holistic understanding of urban systems and their interdependencies and risks. We can strengthen communities by better understanding potential shocks and stresses and identifying how cities can improve development trajectories and the well-being of residents. Communities rarely face a single shock or stress. Most cities face a combination of shocks and stresses that can undermine resilience. The compounding pressure of unaddressed or inadequately addressed challenges weakens local resilience.

This paper, informed by dozens of interviews with a wide range of thinkers, doers, and movers and shakers, presents an overview of the state of resilience in California policy, outlining key players, key issues, key challenges, and, most importantly, key opportunity areas. The heart of the paper is the Resilience Policy Recommendations section, which outlines potential strategies in four topic areas - Governance, Housing, Disaster and Climate Change, and Economic Opportunity - that can catalyze significant action to leverage resilience investments in California and move the needle in critical issue areas. With new state government in place in 2019, this is a critical time to push for bold action.

PROJECT METHODOLOGY

The Association of Bay Area Governments/Metropolitan Transportation Commission (ABAG/MTC) has partnered with 100 Resilient Cities to examine the state of resilience in California. This effort focuses on policy innovation and practical implementation, including recommendations to sustain and accelerate current measures. Together, ABAG/MTC and 100RC have examined what’s working in California’s resilience public policy and practice in cities, regionally, and at the state level. Key stakeholders were interviewed to identify policy gaps as well as local-level strategies that successfully build resilience. Through interviews and ongoing discussions, the team has compiled recommendations for local and state-level policy actions to align current practices and propel urban resilience.

The team harvested policy lessons from throughout California, including in each of the

100RC cities' Resilience Strategies from Oakland, Berkeley, San Francisco, and Los Angeles. Promising practices abound in neighborhood scale coordination, innovative financing tools, government leadership to build local capacity and promote innovative local solutions, and integrating equity action in public institutions. The research team explored resilience in the context of the widespread issues cities wrestle with, including transportation, homelessness, adapting to climate change, and natural disasters, along with solutions for green, resilient infrastructure, equitable housing, and economic and racial parity.

Discussion with key resilience practitioners, senior officials and

policy thought leaders yielded a broad picture of the current state of practice as well as potential catalyzing state-level resilience actions. Interviews were structured to highlight links from local needs for resources that would support local and regional coordination and implementation of action to state policy and guidance. Further, respondents were keenly interested in bridging resilience gaps in local practice. They see that policy support from state agencies and re-purposing of existing funds could successfully be applied to implementation, along with exploration of innovative approaches to generate resilience funding. The result is the recommended strategies and initiatives outlined in this paper, which are aimed at making critical improvements to the state's approach to resilience to better support resilience practices at state, regional, local, and community scales.

Defining Resilience

100RC defines urban resilience as the capacity of individuals, communities, institutions, businesses, and systems within a city to survive, adapt, and grow no matter what kinds of chronic stresses and acute shocks they experience.

Chronic Stresses

weaken the fabric of a city on a day-to-day or cyclical basis, such as high unemployment, inefficient public transportation systems, endemic violence, and chronic food and water shortages.

Acute Shocks

are sudden, sharp events that threaten a city, such as earthquakes, floods, disease outbreaks, and terror attacks.

STATEWIDE ROLES FOR RESILIENCE

Over a dozen state agencies play either a primary or secondary role in setting statewide priorities and in providing data and guidance, regulation, or funding to support implementation of resilience projects at multiple scales. Many of these efforts are siloed, leading to challenges for regions and cities in understanding and coordinating regulatory requirements, assumptions for critical data, and paying for projects. Before identifying pathways to improving these connections, it is important to understand the myriad agencies at the State that support, underwrite, and provide data and guidance for local, regional, and statewide resilience efforts. The state plays a critical role in advancing resilience in many ways, but primarily through the three avenues outlined below.

REGULATION

California has been a leader in statewide resilience policy, starting with the Riley Act and Field Act in 1933, which made significant advances in seismically-safe building codes for homes and schools. A review of enacted and proposed statewide policy reveals a significant resilience legislative program. Regulatory requirements can help bolster, coordinate, and catalyze local planning for resilience. Together, this signals a statewide movement towards a more secure future for California. The statutes and guidelines below serve as some of the more recent pertinent examples of policy levers used to increase resilience.

- **Governor's Executive Order B-30-15** (enshrined in SB 32 and AB 197 / AB 398) establishes a greenhouse gas reduction target of 40 percent below 1990 levels by 2030 and guides integrated state agency adaptation planning. The Order is implemented through guidance laid out in *Planning & Investing for a Resilient California: A Guidebook for State Agencies*. Executive Order B-30-15 was preceded by Executive Order S-3-05 under Governor Schwarzenegger, which set initial greenhouse gas reduction targets and has been followed by Executive Order B-55-18 in September 2018, which sets a goal to achieve statewide carbon neutrality by 2045.
- **SB 100 (De León)** requires that 100% of electricity sold in the state come from renewable sources by 2045, with intermediate timelines to achieve 50% renewable electricity by 2026 and 60% renewable by 2030.
- **SB 379 (Jackson)** requires that upon adoption of a local hazard mitigation plan (LHMP) update on or after January 1, 2017, or a new LHMP on or before January 1, 2022, the safety element of the general plan should be reviewed and updated to address climate adaptation and resiliency strategies applicable to that city or county.

- **SB 246 (Wieckowski)** establishes a state-led Integrated Climate Adaptation and Resilience Program to coordinate local and regional efforts with state climate adaptation strategies through a Technical Advisory Council and an online clearinghouse for climate adaptation information, managed by the Integrated Climate and Resiliency Program (ICARP).
- **AB 2800 (Quirk)** requires state agencies to take into account the current and future impacts of climate change when planning, designing, building, operating, maintaining, and investing in state infrastructure. It also calls for the establishment of a working group on climate impacts to state infrastructure systems.
- **Housing Element Law** requires integration of climate equity planning into housing and implementation plans, which is outlined in *Building Blocks: A Comprehensive Housing-Element Guide*.
- **AB 1505** authorizes cities and counties to adopt inclusionary housing ordinances, requiring residential rental housing developments to include a specified percentage of affordable units as a condition of development.

FUNDING

California's financial investment in resilience is routed through many state funding programs. State policy has called for the integration of resilience actions and investments across agencies and programs in order to implement a comprehensive resilience approach. The most direct state guidance has been developed through Executive Order B-30-15, and is applied through programs at state agencies such as the Strategic Growth Council (SGC), the California Natural Resources Agency, and a wide range of other state departments.

Resilience investment programs range throughout state agencies (see Table 1: State Agencies and their Roles in Local Resilience), and is substantial compared with other states. Currently, upwards of \$2 billion annually is available for climate mitigation and adaptation efforts through the state's Cap-and-Trade program. The program is supported by legislature through 2030 to ensure sustained investment in climate impact improvements. Another legislature-approved program included under SB 1, the Road Repair and Accountability Act of 2017, provides \$5 billion a year for roadway repair and improvements to address long-term deferred maintenance and upgrades. Watershed protection and integrated water management initiatives are funded by \$7.5 billion provided by Proposition 1, the Water Quality, Supply, and Infrastructure Improvement Act.¹ Recent bond measures have generated \$168 billion for schools, parks, hospitals, and housing. These examples are only a portion of resilience funds being put to use in the state and signal voter and legislative commitment to long-term environmental and social protections.

1 Resilient by Design Finance Guide

Agency	Abbreviation	Specific Initiatives	Regulation	Funding	Data and Guidance
California Coastal Commission	CCC	Regulates Local Coastal Programs and provides grants and resources for the implementation of LCPs	•	•	•
Housing and Community Development Agency	HCD	Manages the state's housing programs to ensure equity and supports homelessness mitigation and affordable housing programs	•	•	•
Bay Conservation and Development Commission	BCDC	State agency that manages SF Bay perimeter development regulations and planning; conducts the Adapting to Rising Tides Program	•		•
California Geological Survey	CGS	Map and analyze data on earthquakes and other geologic hazards. Manages and regulates the Earthquake Hazard Zones.	•		•
California Energy Commission	CEC	Directs the state's energy policies and funding programs--Cal Adapt; EPIC, Energy Assurance		•	•
The California Natural Resources Agency	NRA	Safeguarding California guidance on resilience implementation across state agencies		•	•
California Office of Emergency Services	CalOES	State's Office of Emergency Services; manages integration of climate and disaster resilience planning in Local Hazard Mitigation planning		•	•
Governor's Office of Planning and Research	OPR	Directs the state's general planning guidance and regulations; manages the Integrated Climate and Resiliency Program		•	•
California Business, Consumer Services, and Housing agency	BCSH	Parent agency of the state Seismic Safety Commission; supports consumer protections and housing programs		•	
California Coastal Conservancy	Conservancy	Protects and improves natural lands and waterways along the coast and around the San Francisco Bay		•	
California Seismic Safety Commission	CSSC	State's advisory body on earthquake and other natural disasters, and economic impacts of seismic events		•	
Strategic Growth Council	SGC	Allocates the state's cap and trade revenues		•	
California Governor's Office of Business and Economic Development	Go-Biz	Serves as the state leader for job growth and economic development efforts			•

Table 1: State Agencies and their Roles in Local Resilience

However, it has been difficult to quantify the state's total investment in resilience over time. Though some investments, like those outlined above, explicitly address resilience, many investments do not, yet still move the needle on resilience. While efforts have recently been made to identify, quantify, and monitor the fiscal investments across the state agencies, little is still known as to the total sum of state-level investments or their effectiveness. Additionally, though the state requires that all agencies and department post the availability of grants funds on their respective websites, there is no single source of all state grants funding information. The Grant Information Act of 2018 (AB 2252, Limon) was recently enacted and requires the California State Library to create a funding opportunities Internet Web portal that provides a centralized location for grant seekers to find state grant opportunities by 2020. This funding hub will improve access to fiscal opportunities for local jurisdictions and regional agencies involved with resilience implementation. It will allow policy, finance and legislative analysts to assess what has been done to date and accurately forecast future needs.

California Voters Invest in Their Future

California State funding for resilience is a complex process with funds routed to the regional and local level agencies and jurisdictions for implementation. State funding propositions, special taxes, carbon trading dollars, and general obligation bonds have been the primary funding sources used to finance resilience improvements in the built environment. California's use of electoral support for overall state resilience is unusual nationally, given national reluctance to raise taxes. Since the 1978 passage of Proposition 13 and its curtailment of property tax revenue, California has had to apply innovative revenue generation efforts at many levels (more information on this is available in the Resilience Policy Recommendations section on page 29).

At the state level, the use of general obligation (GO) bond measures is prevalent. Since 1986, state voters have approved upwards of \$168 billion in bond revenues for school and university facilities, water systems, parks, hospitals, energy improvements and housing funds including \$51 billion in K-12 and community college bond measures to improve the safety of existing schools and build new ones for a growing population. Water resources, parks, housing and transportation have all benefited from voter support including \$74 billion to address the state's infrastructure needs.² These measures, largely requiring a super-majority approval, are a strong indicator that Californians are willing to invest in their state and ensure a more sustainable future.

Voters have also indicated their willingness to endure short-term tax pain to improve future outcomes. The Great Recession hit California hard and state leaders persuaded voters to approve two landmark measures in 2012, both of which had a short-term life. The first was a modest tax hike that raised the sales tax by .25 cents (with a 2016 sunset);

² Legislative Analyst's Office; California Legislature's Fiscal and Policy Advisor; General Obligation Bond Analysis.

the second was a 3% tax rate increase on the highest income earners (over \$250,000 annually) in the state (2030 sunset). These two measures backfilled funds for state education and allowed the state to sidestep a \$6 billion tax deficit. Californians essentially taxed themselves to smooth the dire impacts of the 2008 recession.

Legislative adoption of the Cap-and-Trade program combined with voter willingness to invest in both capital improvements (through general obligation bonds) and operational budgets (time-limited taxes) demonstrate successful and resourceful collective action. These efforts were challenging but necessary interventions that have significantly bolstered the resilience of California's social, political, and built environments.³

Key Regional Actions Follow the State Lead

Regional and local level finance actions include a steady stream of voter-approved funds for resilience investments. The example of the San Francisco Bay Area is telling. After the 1989 Loma Prieta earthquake and the 1991 Oakland Hills Fire, partner agencies coordinated research to examine how the region recovered from these dramatic regional disasters. The resulting deaths, housing losses and infrastructure damage motivated the affected jurisdictions, agencies and institutions to actively reduce future disaster risk, particularly from future earthquakes. A recent analysis confirmed that local seismic safety improvements in the region since 1989 are somewhere between \$63 and \$73 billion, primarily provided by voter-approved state and local tax measures and by rate-user approved fee increases. Upgrades to transportation infrastructure have amounted to \$19.6 billion; \$18.1 billion has gone to improving acute care facilities at hospitals; \$8 to 13.5 billion to strengthening school facilities; and \$5.9 billion has been spent on improvements to water supply systems.⁴ These considerable investments serve as indicators of the region's willingness to invest in long-term resilience.

Local Resilience Funding Strategies

Following the state's lead, local governments have had to be agile in their fiscal management, incorporating innovative and flexible financing tools to support community and resilience improvements. California has experienced many landscape-scale climate and geologic disasters, leading to financial investments in both physical and social resilience in the aftermath of these events. Communities have tapped state, regional and local tax measures, bond financing, and external funding from state, federal and private sector. A focus on self-reliant resilience financing to supplement external grants is the most effective way that local jurisdictions can fully implement resilience projects.

In an era of limited local funding, multi-jurisdictional approaches such as the San Francisco Bay Restoration Authority as well as philanthropic and corporate partnerships

3 Ibid

4 U.S. Geological Survey; "Reported investments in earthquake mitigation top \$73 to \$80 billion in the San Francisco Bay Area, California, since the 1989 Loma Prieta earthquake;"

are emerging as innovative fiscal solutions. Some examples of other successful sources for local resilience initiatives include:

- Designation of special tax assessment districts, which are voter-approved areas that can levy taxes for various resilience priorities;
- Using local capital planning budget funds to incorporate resilience into day-to-day projects;
- Resilience impact fees, an innovative approach to embed resilience fees in development entitlements or via building permit processes;
- General obligation bonds that authorize resilience improvements;
- PACE, on-bill resilience financing to fund risk reduction and resilience improvements as allowable under California statute;
- Leveraging revenues from new fees such as those collected for accessory dwelling unit permits; and,
- Incorporating infrastructure funds for water, safety, microgrids, retrofits, housing, and transportation systems.

The key challenge with the financing tools identified is the gap between what funds these may generate and what is needed for transformational resilience. Excellent guidance has recently been published by the Governor's Office of Planning and Research, the *Resilient by Design Bay Area Finance Guide*, and *California's Fourth Climate Change Assessment* that survey the potential ways communities can map out finance planning, seek supplemental grants, secure finance partners and craft a multi-layered resilience fiscal plan.

DATA & GUIDANCE

Significant research, data, and guidance comes from California state agencies to help regional agencies and cities and counties make informed decisions about resilience planning and implementation, and to help navigate the myriad requirements for compliance with both regulatory and non-regulatory statutes.

Environmental resilience planning for the state is encompassed in the *Safeguarding California* plan, developed by the California Natural Resources Agency, to integrate climate equity in all state actions on land use, housing, and environmental protections to ensure integration of regional and local action. This is California's coordination plan among state agencies and departments to support climate action, ensure cross-departmental consultation, and strengthen local-level resilience implementation. They also produce *Fourth Climate Change Assessment* (with OPR and the Energy Commission), which summarizes the most recent and meaningful scientific research to understand climate-related vulnerability at the local scale, informing resilience actions locally as well as informing the State's policies, plans, programs, and guidance to integrate action to

A levee breach near Rio Vista, CA. Source: US Army Corps of Engineers



safeguard California from climate change. The science in the *Climate Change Assessment* underlies the plan outlined in *Safeguarding California*.

For regional and local governments, the Natural Resources Agency (NRA), in partnership with CalOES, also produces the *California Adaptation Planning Guide*, which provides guidance in proactively addressing the unavoidable consequences of climate change. It provides a step-by-step process for local and regional climate vulnerability assessment and adaptation strategy development and helps cities and counties comply with SB 379, which requires cities and counties to include climate change adaptation into their general plans.

The NRA, in conjunction with the Ocean Protection Council, synthesizes the best available science on sea level rise projections and rates for California in the *State of California Sea-Level Rise Guidance* document. The document also provides tools for state agencies and local governments to evaluate and apply these projections to their daily decision-making, and guides users on the most appropriate coastal adaptation approaches.

Providing a comprehensive overview from a multi-hazard perspective, CalOES produces the *State of California Hazard Mitigation Plan* every 5 years. This document represents the state's primary hazard mitigation guidance document, and outlines the state's mitigation goals and objectives as well as strategies and actions. The plan represents the state's commitment to supporting a comprehensive mitigation strategy to reduce or eliminate potential risks and impacts of disasters to create a more resilient state. While local governments are encouraged to produce their own Hazard Mitigation Plan, the State document provides a wealth of information and ideas for hazard assessment and mitigation approaches.

The Governor's Office of Planning and Research (OPR) provides many data and guidance tools. The *General Plan Guidelines* helps users understand the state's requirements for various general plan elements, and provides best practice guidance, policy recommendations, and links to helpful resources. OPR also produces *Cal-Adapt*, a repository of research, data, visualization tools, and external resources to help jurisdictions understand and respond to their risk, and the *Adaptation Clearinghouse*, an online database and networking site to support policymakers working to help communities adapt to climate change.

California Geological Survey provides geological maps, including regulatory maps for surface fault rupture, landslide, and liquefaction, as well as guidance for how to interpret and utilize the information to make decisions about geologic hazards, including earthquakes, faults, landslides, tsunamis, and liquefaction zones.

The California Department of Housing and Community Development provides a wide variety of reports, trainings, and guidance on affordable housing, Housing Element law, green building, housing policy, and many grant and funding programs.

Lastly, the California Coastal Commission publishes tools to support the development and update of Local Coastal Programs (LCPs), planning tools used by local governments to guide development in the coastal zone. Guidance includes an overview of resource protection policies that should guide LCP Land Use Plan policies, as well as procedures that local governments use to implement LCP policies.

OTHER NON-GOVERNMENTAL AGENCIES WITH STATEWIDE INFLUENCE

Local Government Commission (LGC)

The Local Government Commission connects local government leaders through innovative programs and network opportunities, advances policies locally and statewide, and provides technical assistance and advice to local jurisdictions for implementing solutions around healthy community design, climate change, energy, and water. LGC supports ARCCA (below), the California Adaptation Forum, the CivicSpark program which brings Research Fellows to local governments to advance climate projects, and many other projects statewide.

Alliance of Regional Collaboratives for Climate Adaptation (ARCCA)

ARCCA is a network of leading regional climate collaboratives from across California that work together to advance adaptation statewide and increase local capacity to build community resilience. ARCCA provides adaptation practitioners the opportunity to connect with peers across the state to exchange knowledge, engage in targeted problem-solving, implement joint campaigns, and break down silos across sectors and jurisdictions. ARCCA engages in coordinated statewide policy advocacy, hosts learning sessions, supports climate research, and supports climate change collaboratives through a toolkit to create new collaboratives, technical assistance with governance, and funding. ARCCA is a coalition of the Local Government Commission.

California Earthquake Authority (CEA)

The California Earthquake Authority (CEA) is a non-profit, public instrumentality of the state, created by state law to provide earthquake insurance to California residents. In addition to providing insurance, the CEA promotes and supports earthquake preparedness across the state and conducts research focused on learning how to reduce damage caused by earthquakes.

STATE OF PRACTICE: WHERE WE ARE NOW

Throughout the research phase, respondents addressed recurring topic areas that closely match planning strategies the California 100RC communities have enacted. These issues reflect a common set of observations about actions needed among communities, practitioners and policy leaders to provide protections that enhance resilience. Additionally, the analysis below reinforces how siloed these strategies are and highlights the need for greater coordination statewide.

CLIMATE ADAPTATION, SEISMIC RISK & PHYSICAL HAZARDS

The majority of California is vulnerable to a catastrophic disaster within the lifetimes of most residents. Wildfires and floods are the most common disasters, but earthquakes and sea level rise pose the greatest threats for large-scale destruction or long-term change to the state. The state is home to 39 million people and, if it were its own country, would have the fifth largest economy in the world.⁵ The state serves as a global headquarters for entertainment and tech innovation, and is the nation's largest agricultural producer. The physical hazards the state faces put all of these assets and people at risk, posing significant potential challenges for the economy, people's lives, major infrastructure, and the state's iconic cultural and historical assets.

California's unprecedented 2017 wildfires signal the increasing frequency and intensity of climate-induced disasters, highlighting the necessity to directly link natural disaster and climate resilience planning. In addition to climate threats, geologic hazards such as earthquakes, landslides and liquefaction are significant threats in California's risk.

The Office of Emergency Services (CalOES) and the Federal Emergency Management Agency (FEMA) require policies aimed at comprehensively addressing the risk posed by potential shocks. Local jurisdictions are mandated to incorporate disaster and climate risk reduction planning in local hazard mitigation plans and The Governor's Office of Planning and Research (OPR) calls for including these plans in every community's General Plan. These requirements exceed conventional hazard mitigation approaches by tackling a wider range of hazards that impact people and the built environment.

OPR is integrating climate adaptation planning into existing planning and investment decisions for state agencies and supporting similar actions for regional agencies and local jurisdictions. OPR is also working to align climate adaptation and greenhouse gas

5 2018 California State Hazard Mitigation Plan (Public Review Draft), April 2018

emission reduction implementation to best realize policy co-benefits and understand how to balance trade-offs between greenhouse gas mitigation and climate adaptation.

The Strategic Growth Council's (SGC) work on *California's Fourth Climate Change Assessment* will focus on communicating technical data and information to communities to ensure that jurisdictions are utilizing the most recent and relevant climate data for planning purposes. California has taken an intentional approach to this work tailored specifically to the state's environmental conditions rather than relying solely on federal studies from the U.S. Global Change Research program. This localized approach provides more granular California-specific findings suitable for use in developing more successful and applicable adaptation solutions that address regional and localized challenges.

In other departments, the Department of Housing and Community Development (HCD) is grappling with how best to support housing in areas vulnerable to sea level rise, earthquakes, and flooding. For example, the agency is evaluating the 500,000 mobile homes in California to ensure disaster safety measures are in place for their residents, as these types of homes are not regulated by other agencies. Additionally, as part of the state's *Disaster Recovery Framework*, HCD coordinates closely with CalOES through the Hazard Mitigation Grant Program (HMGP) to instill resilience improvements in rebuilding after disasters through recovery policy recommendations and housing program grants.

In the Bay Area, regional and state agencies cited that a majority of jurisdictions and stakeholder agencies consider climate impacts in program and project planning. Many also cited that regional collaboration across sectors is demonstrably improving. As recently as 2011, the bay shoreline agency, Bay Conservation and Development Commission (BCDC) was initiating sea level rise planning while the council of governments, Association of Bay Area Governments (ABAG) was coordinating development of local hazard mitigation plans without any knowledge of one another's planning. The 2015 hazard mitigation plan update coordination was much more integrated with climate adaptation planning; such a situation would be highly unlikely now as regional planning is aligned through a number of planning hubs, such as the Bay Area Regional Collaborative (BARC).

EQUITY & ENVIRONMENTAL JUSTICE

As state agency staff said during the course of one of the interviews, "equity starts when planning begins." This sentiment was reflected throughout the interview process. Applying an equity lens to resilience policy and implementation has emerged as a critical component to building more meaningful resilience for all Californians. Ample tools emerged in the interviews to address this at the state and regional levels; the challenge is to support the application in communities.

The Local Government Commission (LGC) launched an internal equity committee



*Flames of the Simi Valley fire ravage a Southern California mountain side.
Source: U.S. Air Force photo by Senior Master Sgt. Dennis W. Goff*

and a training series to address the issues of implicit biases and social equity in its organizational systems. Further, LGC is developing a screening tool for projects it funds to ensure equity practices are standard in all efforts involving under-served communities. The commission seeks to provide ways to fund more diverse committee participation, bring in a wider range of partners and discussants at the California Adaptation Forum, and to ensure environmental justice issues are represented by direct community leaders.

Regional agencies and state agencies working in the regional settings discussed the challenges they face to mainstream equity and social justice into resilience planning and implementation. Planners cited many requirements in program planning calling for incorporation of equity issues into public processes so that people most affected by resilience efforts are directly involved in project scoping, vulnerability assessments and project outcomes. All agree these are foundational elements of respectful social partnerships and effective professional practice.

It isn't easy, however, to get community stakeholders to the planning table with difficult meeting schedules and challenging barriers to connect with community residents on issues that are not focused on daily life or immediately urgent situations. Depending on

the agency's or organization's mission, drawing in engaged partners at varying levels is a constant challenge and one each group grapples with consistently.

Requirements from OPR for communities to assure that social vulnerability is addressed in all California climate investment funding is promoting state-level action and incremental local-level change. OPR and other state funding agencies are coordinating planning to implement Executive Order B-30-15 guidance to incorporate social equity measures into all state funding investments through application of the order's guiding principles: prioritizing actions that also reduce greenhouse gas emissions; use flexible and adaptable approaches to prepare for uncertain climate impacts; protect the state's most vulnerable populations; and prioritize natural infrastructure approaches.. This order was cited by most of the interviewee agencies as a baseline platform as they develop agency plans and implement climate and disaster resilience programs.

Many interviewees cited *Safeguarding California* as an example of effective policy and forward-thinking planning for the state. The Union of Concerned Scientists (UCS) staff pointed to the chapter on climate justice as a benchmark policy lever for incorporating equity into the practical aspects of community planning. The plan provides overall direction that will guide state agencies to act and be accountable, a key necessity for equity inclusion. Additionally, state agencies are alerted to work together to avoid maladaptive practices and ensure resilience address risks without creating downstream equity problems.

In other agencies, efforts to provide financial support for resilience implementation incorporate social equity in program application and award processes. The Strategic Growth Council's (SGC) Affordable Housing and Sustainable Communities (AHSC) Program is continuously funded through 2030 and is working to build capacity statewide for groups and jurisdictions to equitably compete for grants. The agency works with community-based organizations through its Transformative Climate Communities Program to fund climate measures in at-risk areas.

From the state's perspective at SGC, the California Department of Transportation's (CalTrans) climate change vulnerability assessment is a key climate resilience action. CalTrans is the first state agency to conduct such an assessment and its systematic approach is providing a model for the enactment of Executive Order B-30-15 guidance to incorporate social equity into all state funding decisions.

The Resilient by Design: Bay Area Challenge (RBD) has made community focus a priority in its climate adaptation design efforts and has partnered with environmental justice groups to better support direct community involvement in planning for resilient solutions in economically disadvantaged areas. BCDC and BARC have partnered with RBD and support inclusive planning and active partnering in their own programs and with RBD. These collaborations are proving helpful as successive planning initiatives build on previous

successes and learn from past missteps with community organizing efforts.

Many regional agencies, cities, counties and school districts have joined a national alliance that partners with the UC Berkeley Haas Institute for a Fair and Inclusive Society (HIFIS) for year-long collaborative trainings on to increase racial equity and reduce institutional racism. The program, the Government Alliance for Racial Equity (GARE), improves the capacity of local government staff to recognize and reject discriminatory practices in daily operations, incorporating equal and fair procedures. This program has shown to be an effective approach to improving governance and communications in the partnering communities.

On the nonprofit side, the Greenlining Institute staff sees their work as the solution to residential redlining, the inability of communities of color to access home lending funds in lower economic areas, and to advance economic opportunity and empowerment for people of color. The Institute prioritizes strong community engagement and multi-benefit outcomes in advocating for resilient essential infrastructure such as hospitals and designated evacuation routes in disasters. They believe it's crucial to normalize climate justice and equity in community planning processes and to socialize resilience principles and recommendations with community audiences. Serving on the ICARP Technical Advisory Council with the Governor's Office of Planning and Research, the Institute is assisting on the coordination of local, regional and state levels to advance climate justice, social equity, and disaster risk mitigation via environmental approaches.

The need for tools to identify communities most vulnerable to climate change is growing. *CalEnviroScreen*, developed by the Office of Environmental Health Hazard Assessment (OEHHA) is a powerful tool that measures pollution burden in at risk communities. A statewide solution similar to this to assess community vulnerability to climate change would be greatly beneficial. The Association of Bay Area Governments (ABAG), in partnership with the Bay Conservation and Development Commission (BCDC), developed a Bay Area screening tool called *Stronger Housing, Safer Communities*, that identifies vulnerable communities using eight measures that indicate characteristics that make a community member less able to prepare for, respond to, or recover from a disaster or climate hazard. This could serve as a starting point for a statewide tool. The latest iteration of *CalEnviroScreen* will include some climate change aspects and allow more precision in the identification of climate risk to help target funding for better solutions.

GREEN, RESILIENT INFRASTRUCTURE: TRANSPORTATION, WATER & POWER SYSTEMS

A critical component of resilience, both for climate adaptation and long-term resource sustainability, is improving infrastructure to not only withstand disasters but also contribute to the reduction of disasters and be adaptable as landscapes, populations, and needs change. This includes new, innovative ways to provide power and water to

residents, adapting transportation systems to accommodate new modes of moving around within the state, and ensuring that systems remain operable despite inundation, earthquakes, or other hazards.

The Local Government Commission (LGC) staff cited the success of recent electoral measures that contribute to support of green and resilient infrastructure in the Bay Area's San Francisco Bay Clean Water, Pollution Prevention, and Habitat Restoration Measure (Measure AA, 2016) and Los Angeles County's The Los Angeles County Safe, Clean Neighborhood Parks and Beaches Measure (Measure A, 2016). Measure AA, approved by the voters in all San Francisco Bay Area's nine counties, provides \$500 million to fund shoreline projects that protect the long-term environmental health of the San Francisco Bay. Measure A in LA County provides over \$94.5 million annually for open space and park improvements. The RBD staff cited the Parks, Environment, and Water Bond (Proposition 68) that passed in June as another harbinger of cross-sectoral support for the care and maintenance of open space and ecosystems' health.

Other resilient infrastructure measures are emerging through the California Energy Commission (CEC) micro-grid and energy assurance programs. The Regional Energy Networks (RENs) are implementing residential energy improvements throughout the state; in the Bay Area over \$20 million annually is applied to improving energy systems in single-family homes. The Community Choice Aggregation (CCAs) organizations provide a green, resilient alternative to mainstream power providers, offering a pathway to energy decentralization to improve wildland fire safety and foster future energy independence.

The CEC's focus on integrating energy policy with transportation and other lifeline systems is the backbone of its agency programs. The department has sponsored funding programs for renewable energy innovations, with a focus on climate change improvements affecting frontline populations. It also has a role to serve in the restoration and recovery of disaster-impacted communities; it is currently a significant player the aftermath of the state's 2017 wildland-urban interface fires and debris flow events.

The Union of Concerned Scientists (UCS) has led the way on addressing issues on climate-smart infrastructure and energy system resilience at the state level. Their advocacy efforts aim to ensure communities and decision-makers get the best possible information on designing and investing in infrastructure that can reliably withstand climate related stressors in the future. In 2016, AB 2800, an infrastructure bill calling for improved planning for adaptive, reliable infrastructure was approved. The bill called for the establishment of a statewide working group of engineers and climate scientists to support inclusion of climate science in infrastructure investment decisions. UCS works to mainstream evidence-based science into public policy deliberations for California communities and will provide recommendations to the legislature on next steps for implementation and incentivize resilience action and find creative ways to successfully do that. California plans for considerable investment in infrastructure improvements over the

next three decades. The AB 2800 report *Paying it Forward: The Path Toward Climate-Safe Infrastructure in California*, can promote that this will be done with more resilient measures incorporated into state programs. As well, when communities build back after disaster, they can get apply this technical guidance to build back in more resilient ways.

HOUSING, HOMELESSNESS & DISPLACEMENT

Like so many American urban areas, California is in the midst of a housing crisis. Cities are challenged by the lack of affordable housing and the impacts of homelessness and displacement due to social and economic stressors. Major disasters—earthquakes, debris flows, wildland-urban interface fires, prolonged drought and changing weather patterns—exacerbate the problem of where people can safely and sustainably live. Interviews with state agency and institutional experts demonstrate there are no easy answers in sight to a challenge that calls for effective political action.

The integration of resilience and planning equity into HCD programs has become standard with inclusionary activities in the Housing Trust Fund (HTF) and Home Investment Partnership Program (HOME) (the national housing trust program) and in the state's housing programs package. HCD administers the Community Development Block Grant (CDBG) & Home Investment Partnership Program (HOME) programs for the non-entitlement jurisdictions. This responsibility allows for more consistent application of parity requirements. HCD has the obligation from the Fair Housing Act mandates to cite equity impediments and call for corrective actions. The agency is also participating in the B-30-15 integration planning for state agencies with equity criteria inclusion for all housing programs.

As part of the state's General Plan requirements, housing elements naturally have an equity principle to call for affordable housing development in local communities. Application of the Regional Housing Need Allocation (RHNA) through the state's councils of governments (COGs) remains a challenge. Through the housing element review process throughout state, the fair (housing) share allocations are designated in RHNA's site locations. What's missing in this equity process is defining where we identify sites for fair share allocation. Local jurisdictions need to address this disparity so that all communities equally share in fair housing needs. This is a legislative gap that calls for a state corrective requirement.

HCD has conducted analysis on impediments of federal housing requirements and works with stakeholder organizations and other state agencies to develop equity solutions. The agency has participated in the Government Alliance for Racial Equity (GARE) process facilitated by UC Berkeley's Haas Institute for a Fair and Inclusive Society (HIFIS) and other trainings with the UC Center for Regional Change to integrate racial and social equity in agency processes and policy applications.

HIFIS collaborates closely with HCD on fair housing legislation and sees the state agency leading the way nationally on housing equity policy and implementation. HCD is using the RHNA reform approach and as an effective embodiment of fair share housing policies. RHNA takes fair housing policy to the next level by designating specific guidelines for all income levels, according to HIFIS staff, citing HCD efforts as “the ideal of what appropriate housing policy (can achieve).” The policy support provided by RHNA for fair housing allocations can be used to good purpose as long as local jurisdictions comply with their required implementation.

HIFIS cited significant barriers to equitable housing in the state. As a home rule state, California has a reputation for being progressive and leading political resistance against oppressive policies. But, exclusionary housing tactics have long been part of the state’s housing legacy. These forms of exclusions take many forms and include land use policies that make it difficult for people of color to make footholds in high cost real estate areas as well as uses of NEPA and CEQA to thwart new affordable housing. Proposition 13 reinforces racial and economic inequity by minimizing tax rates that affluent jurisdictions are required to pay while exacerbating the gap between capacity and needs in poor communities. These practices and policies contributed to the perfect storm for housing and economic inequality, creating the highest level of housing cost, homelessness, and the largest gap between high and low performing schools in the nation.

Severe income inequality is already pushing people out of California metropolitan areas and disasters worsen the displacement equation. Social equity practitioners are worried about insurance coverage for residents from disaster-affected communities, and their ability to access services to be able to rebuild and recoup disaster losses. In the areas impacted by the 2017 North Bay fires, for example, many residents were undocumented, and many who lost their homes were renters. These types of residents are already dealing with high living costs and are much less able to respond to unplanned emergencies and, if they lose their housing due to a disaster, are far more likely to leave the area, either to be closer to familial support or because their community is no longer affordable. Further, helping vulnerable and under-resourced populations after disasters is a challenge, given limited resources and competing demands within the community.

CHALLENGES TO BUILDING RESILIENCE IN CALIFORNIA

Four issues arose as the most challenging for California as it develops a resilience agenda: communications, public policy silos, recreating hazard conditions during rebuilding, and lack of technical and financial resources to support local resilience capacity.

COMMUNICATIONS

Most interviewees cited difficulty in communicating resilience, climate and disaster risk, and equity and social issues in ways that substantively engaged communities or that elicited strong responsive action by elected officials. Scientific, technical risk, or public policy studies from experts are not readily understood by the broader community; policy translation support is a crucial need in order to clearly communicate the range of resilience issues and solutions to consider. As one interviewee said, “If this (seismic hazard) isn’t in the top ten list of community concerns, then, we need to tell the story better.” Others cited that “...we have to tackle the big issues of community risk—we are talking along the edges of the problem.” Even community-smart practitioners are cautioned by non-English media outlets to communicate climate risk in ways that all people can understand.

PUBLIC POLICY SILOS

A frequent comment emerged about siloed policy sectors relevant to resilience and disaggregated implementation practices. People dealing with different hazards, climate impacts, social vulnerabilities, and related effects, as well as those working at differing scales, don’t coordinate as well as possible with each other. Consequently, resilience implementation is scattered and doesn’t benefit from leveraging resources or realizing potential multi-benefits. One interviewee put it this way: “...one of the great opportunities is to break out of the silos and move resilience out of the environmental sphere—this is the ‘everything’ space.” As severe income inequality is pushing people out of California metropolitan areas, communities aren’t comprehensively addressing how to address resilience, safety and equity issues in a holistic way. Many cited the need for a regional authority to grapple with regional issues that would strengthen what MPOs can accomplish, though there is no one simple recommendation for how to accomplish this. Rather, a suite of solutions will be necessary.

REPEATING HAZARDOUS BUILDING PATTERNS

After most horrific disasters, communities want to speed recovery and get back to the pre-event normal. The redevelopment efforts, in the rush to return to normalcy, often recreate the same risk conditions that the community previously experienced, like building in high-risk areas or buildings that don't meet the most innovative performance standards. This is exacerbated by insurance payouts that only replace property as it was, not as it should be. Given California's high-risk situation, interviewees questioned how the state can address these issues given the potentially high losses communities face. One big component is starting a conversation about where rebuilding can, or should, occur - should high hazard areas be off-limits for new building and rebuilding? "The avoidance conversation is a huge challenge," and one cited in the majority of the project discussions.

LACK OF RESOURCES TO SUPPORT LOCAL ABILITY TO ADDRESS RESILIENCE

"California understands that investing in climate change policy is needed for the overall well-being of the state and individuals." This comment, and others like it, resonated with all the interviewees, and was bolstered by recommendations of more state-supported resources for local government, non-profits and community groups to develop and implement local resilience actions. It's essential that the state, regional and local agencies and jurisdictions be more deliberate about integrating disaster and climate policies and to develop capacity for communities to get resources to do this work. From the state housing agency to regional practitioners, all saw that financial resources and technical guidance was greatly needed for communities to successfully to act. Many cited that "policies to unlock funding and avoid maladaptive solutions" were essential and would also create equity and economic resilience outcomes.

RESILIENCE POLICY RECOMMENDATIONS

Based on the research phase and interviews with stakeholders, four major policy areas emerged that are seen as critical policy action areas for improving resilience at the state level and supporting resilience regionally and locally. These policy areas are Governance, Housing, Disasters and Climate Change, and Economic Opportunity. Each of these four focus areas would require a coordinated task force, at the level of the Governor's office, to address. Below, we have highlighted one key strategy for each policy action areas, as well as additional supporting initiatives that would expedite action in each policy area.

OVERARCHING RECOMMENDATION: APPOINT A STATEWIDE CHIEF RESILIENCE OFFICER

The primary, underlying recommendation is to **appoint a statewide Chief Resilience Officer in the Governor's Office**, who will spearhead these statewide efforts.

Over the past five years, the experience 100 Resilient Cities has garnered with cities around California, the United States, and the globe has proved repeatedly the value that Chief Resilience Officers bring to their cities. Indeed, their value has been evident in the fact that a number of cities in the U.S. and elsewhere have appointed their own CROs, despite not formally being a part of the 100 Resilient Cities Network. Among others, these include Santa Monica and San Diego.

There is an opportunity to apply the principles and lessons of the Chief Resilience Officer at the state level. The State of Colorado and the State of Rhode Island have both appointed their own Chief Resilience Officers. California is ideally positioned to take a leadership role in pioneering the statewide CRO position by ensuring that a State CRO has broad responsibility across the range of policy areas impacting resilience, while building upon California's leadership in progressive social, environmental, and disaster readiness policies. Compiling those under the umbrella of resilience will ensure that those efforts are coordinated in a manner that amplifies their effectiveness in each area.

Moreover, with four cities who are a part of the 100 Resilient Cities network, there is a wealth of resilience experience to draw upon in the state. All four cities have already released Resilience Strategies, providing initial groundwork for priorities and building coalitions of interested and invested partners.

It is also important to acknowledge that others also recognize the value that a CRO can bring to the State of California. Currently under consideration in the California legislature is SB 168 (Wieckowski), which proposes the establishment of a Chief Climate Resilience Officer.

With a broad mandate, the State CRO would be a senior level advisor to the governor and a part of the cabinet. To be effective, the California Chief Resilience Officer would:

- Work across government departments to improve internal communications, and to address the state’s own complexities.
- Bring together a wide array of stakeholders to learn about the state’s challenges and help build support for individual initiatives, and for resilience building in general.
- Act as the “resilience point person,” ensuring that the state applies a resilience lens so that resources are leveraged holistically and projects planned for synergy.

A State of California Chief Resilience Officer would have a purview that consist initially of four key areas of emphasis, along with additional input into other state priorities as needed. These four areas are:

- Governance
- Housing
- Disaster and Climate Change
- Economic Opportunity

Further explanation of recommended initial work in each of these areas is detailed below. In addition to the State CRO, 100RC is eager to be a collaborative partner in the development and implementation of many of these initiatives, leveraging existing partnerships, providing support and expertise, and advocating for resilient change.

GOVERNANCE

The California government structure is not ideally positioned to deal with 21st century, cross-disciplinary problems. As described previously, over a dozen state agencies play some role in resilience, developing statewide policy, conducting research and packaging data, distributing funding, and providing assistance to regions and cities to implement better planning practices, yet there is no mechanism in place to coordinate these actions. Additionally, outdated policies and practices hamper innovative approaches to resilience. New thinking will not stem from any one agency or department; the state needs to work together to identify and dismantle common road blocks.

KEY STRATEGY: ESTABLISH A CALIFORNIA RESILIENCE INSTITUTE

Governance for resilience needs to go beyond traditional government. Particularly in this politically charged era, fraught with partisanship, a fractured federal government, and privatization of wealth and power, real solutions will need to come from many different sectors. This initiative proposes the development of a partnership among government, philanthropic, civil society and public leaders to bolster local government capacity on resilience implementation.

A cross-sectoral organization, the California Resilience Institute (CRI) would serve as a resilience accelerator to strengthen regional government capacity, amplify county-level resilience actions and serve as a neutral, convening body to foster resilience implementation. This Institute could serve several functions: conducting research and providing innovative solutions for resilience challenges, providing funding for implementation of new resilience strategies, political advocacy and policy support for state initiatives, incubator or support services for new initiatives, joint powers authorities (JPAs), and public-private partnerships, and technical assistance for members, such as trainings, toolkits, model policy, and convenings. While there are already strong players of this type focusing on specific components of resilience, no player has the capacity to tie together all of the factors that truly represent a holistic approach to resilience-building.

California's CRO, along with private and philanthropic stakeholders, could play a key role in the establishment of such an institute. The CRO could serve on a board of directors and represent a variety of state resilience functions, coordinate the resilience agendas of many state agencies, connect other CRI members within state government, provide relationships to federal and local governments, and provide support on developing new policies and funding sources.

Potential Funding Sources:

Philanthropic grants; private investment; pilot funding from the Strategic Growth Council and Natural Resources Agency; California Earthquake Authority; future resilience fund

Partner Agencies:

The Governor's Office; Office of Planning and Research; Housing and Urban Development; CalOES; Local Government Commission; Strategic Growth Council

Timeline for Implementation:

Mid-term

SUPPORTING INITIATIVE: MODIFY PROPOSITION 13 REVENUE RESTRICTIONS

Proposition 13 was approved by California voters in 1979 to limit the state's property tax rate to 1% of assessed value at the time of purchase and to hold annual tax increases to no more than 2% until the property's point of sale. Proposition 13 further stipulates that all California tax increases must be approved by two-thirds of the legislature and that special local taxes be approved by two-thirds of those voting in a given election (a voter-approved exception to this stipulates that approval of local school bond measures require only a 55% approval rate of those voting).

Proposition 13 drastically reduced revenues to the state and local governments through property taxes, which had previously helped pay for local expenses such as road construction and maintenance, government salaries, police and fire services, and local public schools. This has spurred a forty-year period of innovation in local revenue generation approaches. California cities, counties, school districts and the state legislature continually scramble in order to develop funding commensurate with state and local needs. This has led to a multitude of special local taxes, statewide bond measures for infrastructure and a fractured allocation formula to distribute property taxes throughout the state. The following actions could alleviate the funding needs for the state as longer-term measures to adapt the proposition are explored.

The state, with policy and community stakeholders, could examine how to support a proposal to place an initiative on the 2020 ballot to seek voter approval of a split roll tax in California. This effort would call for taxing commercial properties at current market value but would not lift Proposition 13's limits on residential properties. This so-called "split roll" could yield between \$6-10 billion annually for California property tax funds, would exempt properties assessed at under \$2m, and distribute 40% of the proceeds to K-12 and community college education. The proposal currently has solid support among likely voters.

Additionally, the designation of a potential joint committee of the legislature to examine further changes to Proposition 13 are called for. Under its auspices, the governor could convene an *ad hoc*, multi-partisan task force with representatives from the State Legislature, the California League of Cities, the U.S. Conference of Mayors, and the California State Association of Counties, along with key private sector stakeholder

organizations, to assess the current situation and develop alternative actions that complement the proposed 2020 ballot measure.

The task force could consider the impacts of repealing or amending the law and conduct a multi-year study of the matter and assess the efficacy of the split tax roll effort. The State's Legislative Analyst and Director of Finance would serve as the lead staff to develop the analysis, a range of corrective, phased measures and an implementation timeline. The state's Metropolitan Planning Organizations would conduct public hearings and other active community partnership efforts to incorporate public recommendations.

SUPPORTING INITIATIVE: ENSURE BETTER ALIGNMENT BETWEEN LOCAL & STATE LEVELS OF CALIFORNIA GOVERNMENT

While a statewide Chief Resilience Officer will go a long way in improving state agency resilience coordination, certain practices and policies will greatly enhance the CRO's efforts. Some of these initiatives include improving baseline equity practices and coordinated integration of resilience-building actions into daily operations, such as fiscal management practices that, as standard course of action, consider resilience projects and project components.

Other best coordinating practices could include aligning city and county funding mechanisms for housing and infrastructure programs that integrate resilient improvements through a state program that aggregates grant and fiscal incentive information. Other fiscal practices could include innovative programs such as enhanced infrastructure financing districts, braided funding sources, and regional economic developments districts as resilience finance tools.

HOUSING

California is in the midst of a housing crisis. Statewide, the median home price in May 2018 was over \$600,000, while median household income hovers at around \$80,000. Rents have also soared; median statewide rent on a 2-bedroom unit is nearly \$2,000, leaving more than 40% of California households paying more than 30% of their income in rent, and 1 in 5 paying more than 50% of their income towards rent. The rapidly rising cost of housing has resulted in increased homelessness and negative impacts on the state's economy. Unsurprisingly, rising housing costs impact lower income residents much more deeply. Rapid population growth and a backlog of housing construction are largely to blame.

Yet solutions are not easy to come by. Land and construction for new housing is often prohibitively expensive for developers. NIMBY attitudes have led to resistance to new housing, and there are plenty of barriers to issuing new housing permits – zoning restrictions, lengthy project design reviews, the California Environmental Quality Act,



New housing in San Jose. Source: Sean O'Flaherty via Wikimedia Commons

parking and other amenity requirements, and a multi-hurdle approval process. Concerns about congestion and preserving character also influence how much housing gets built. Many baby boomers are also concerned about maintaining the skyrocketing value of their homes, as much of their wealth is tied up in properties they purchased decades ago. Below are some strategies to help ease the burden on housing statewide, giving residents more capacity to build resilience and helping to protect communities from displacement.

KEY STRATEGY: EXPAND TAX CREDITS FOR RENTERS

This strategy focuses on supporting legislation to provide a higher statewide tax credit for renters for their main residence, consistent with similar statutes in Massachusetts and elsewhere. Such a deduction will equitably benefit low- and middle-income renters, similar to federal tax deductions for mortgage interest for homeowners. The range of bills on the topic introduced in the 2017-18 legislative session is a policy signal that warrants continued legislative support and could be successful in next year's session.

Many renter tax credit bills were proposed in 2018 as vehicles to provide fiscal equity for renters. SB 1182 (Glazer) was introduced with an additional seventeen senators joining on as co-sponsors; the bill proposed a minimal tax credit increase from the existing \$60 annually to \$137-434 for a range of eligible low-income renters. Other renter tax credit

bills introduced this session included AB 1100 (Chen), which increases the renter tax credit to \$214-428, and AB 181 (Lackey), which increases it to \$120-240. All were held in the Assembly Committee on Appropriation's suspense file. Another renter tax credit bill, SB 1212 (Anderson), which proposed an increase to \$250-500, was held in the Senate Appropriations' Committee. All told, it is possible that with strong support one of these bills could be chaptered in the next session. An updated version of the Glazer bill (SB 248) passed the Senate by a vote of 37-0 in May 2019 and, at time of writing, sits with the Assembly.

An increase to the current renter tax credit is a promising support that could strengthen housing policy interventions. The credit program already exists, easing barriers to access and avoiding implementation delays that a different approach such as a subsidy might pose. There is no need for additional direct funding for a tax credit, as would be needed for a direct tenant subsidy.

Another externality that might affect the larger housing policy landscape is the future success of a ballot initiative addressing rental policies. For instance, in November 2018, voters considered (though ultimately rejected) Proposition 10, which sought to repeal the 1995 Costa Hawkins Rental Housing Act, which sets limits on the kind of rent control policies cities are able to impose, to expand local authority to extend rent control on all current and future rental properties. Polling before the vote suggested that the measure had significant opposition by the development and property owner/landlord sectors, but significant support from housing advocates and tenants.

These legislative and ballot efforts point to the need for a range of policy protections to address housing access and affordability disparities for frontline and working class communities. Policies that protect residents' "right to remain" are implemented through tenant protections such as anti-displacement programs, rent stabilization initiatives or interventions such as New York City's right-to-shelter ordinance.

No single action alone can solve California's housing crisis. Tenant support programs must be bolstered through housing preservation and production efforts that provide safe, affordable and resilient residential building stock. The housing teams at the Metropolitan Transportation Commission/Association of Bay Area Governments (MTC/ABAG) and the Southern California Council of Governments (SCAG) exemplify the important role that regional agencies can play as public policy hubs, technical advisors on development of regional housing guidelines and production targets, as well funding agencies that connect transportation and housing investments.

Potential Funding Source:

A proposed increase to the existing Renters' Tax Credit would result in a revenue loss to the state's General fund but does not require a new source of revenue.

Partner Agencies:

State legislators; Housing and Community Development Agency; Business, Consumer Services and Housing Agency; Housing Development sector (non- and for-profit groups); Tenants and Property Owners stakeholder organizations

Timeline for Implementation:

Mid-term

SUPPORTING INITIATIVE: REINSTATE PROGRAMS THAT SUPPORT LOCAL JURISDICTIONS' CAPACITY TO PROVIDE AFFORDABLE HOUSING

Since 2011, when California eliminated an urban renewal program that provided billions of dollars annually, funded by property taxes, for the development of low-income housing and dissolved the state's 400+ Redevelopment Agencies, the state has been without a major mechanism for the development of affordable housing. Lack of this resource has led to increasing housing inequality and exacerbated the state's housing crisis. Since the dissolution of this funding source, the state, and cities, have struggled to find ways to finance affordable housing. The state has approved spending from cap-and-trade as well as a new real estate transaction fee to subsidize low-income housing development, but these tactics aren't generating enough revenue to produce the housing needed.

The state's Housing and Community Development agency should explore updated approaches to provide affordable housing. For example, the state could consider models such as New York's Mitchell-Lama program that incentivize development through tax abatements, low-interest mortgages, and affordable land acquired by the jurisdiction through eminent domain. The program provides affordable rental and co-owned housing for middle-income communities. The state could also encourage legislators to develop new programs to replace the dollars lost from the end of redevelopment that balances local and state revenue sources without placing additional stresses on already-burdened jurisdictions who face rising pension costs and aging local infrastructure. This initiative links with the key Governance strategy, potentially unlocking antiquated Prop 13 property tax dollars as a means to supplementing revenues needed for affordable housing development for both local jurisdictions and the state.

SUPPORTING INITIATIVE: ACCELERATE RHNA & STATE HOUSING LAW TO IMPROVE HOUSING ACCESS FOR LOW- & MIDDLE-INCOME COMMUNITY MEMBERS

The Regional Housing Need Allocation (RHNA) is the state-mandated process to identify the total number of housing units (by affordability level) that each jurisdiction must accommodate in its Housing Element. This process, administered by the Housing and Community Development agency and the state's Councils of Governments (COGs), can be a meaningful tool to continue regional coordination on housing equity and production.

Jurisdictions don't have supportive policies and resources adequate to get housing built; under the current legal framework, housing targets designate goals that are beyond what local jurisdictions can feasibly accomplish. To most productively increase total housing and increase the share of affordable units, changes to RHNA to improve existing affordable housing production could be part of a larger strategy consideration that includes:

- Entitlement reform to reduce delays and improve compliance with state law, including AB 1771's (Bloom) requirements to change how RHNA's are developed, giving greater weight to equity factors and how the plan allocation impacts housing access for low- and very-low income households;
- Allow middle income units to count toward affordability requirements. Under this proposal, very small projects would qualify for a state density bonus if 20% of the units would be sold or rented for between 100% and 150% of median income.
- Develop regional inclusionary zoning policies. Enact new regional policies statewide to include affordable homes in market rate housing developments to create mixed-income communities.
- Create a package of varied incentives for developers to not suppress housing production. Identify and leverage state and Federal resources for affordable housing developers in development, acquisition, rehabilitation, and preservation deals for offsite affordable homes.

DISASTERS AND CLIMATE CHANGE

California has always faced natural disasters like earthquakes, wildfires, and flooding, but the disaster landscape is amplifying due to climate change hazards and sea level rise. Unprecedented wildfires have been fueled by drought and a changing climate; king tides and winter storms cause more destruction when overlaid on top of rising sea levels and increased storm surges. While California is a national leader in some areas of disaster planning, the future of the state depends on a broader, bigger push to protect our homes, infrastructure, people, and economy from future disasters as much as possible, while simultaneously setting up policies, funding, and processes for recovery when disasters inevitably occur.

KEY STRATEGY: LEVERAGE RECOVERY FUNDS TO SUPPORT "PRECOVERY" EFFORTS THAT REDUCE IMPACTS OF DISASTER AND CLIMATE DISRUPTIONS

California has spent untold billions in disaster response and recovery costs in the last ten years. The damage impacts of recent disasters affect all types of buildings and facilities, ranging from single-family homes, multi-family apartment buildings, private sector buildings, and essential service facilities such as hospitals and schools. Needless to



A dry riverbed in California due to drought. Source: National Oceanic and Atmospheric Administration via Wikimedia Commons

say, action is warranted to reduce the harms people suffer and stem the tide on disaster response and recovery spending.

A practical first step would be the creation of a special, one-time initiative to support resilience finance funding to accelerate implementation of “precovery” projects. Such an initiative would demonstrate regional and local capacity to effectively address risk issues. A Precovery fund provides a missing, and much-needed, bridge among the varied investment sources from the private sector, cities, and regional bodies, along with state and federal agencies.

Establishing a request for proposals process statewide would provide equitable access for communities to participate. Developing a process that calls for ways cities, regional agencies, and the state could co-invest and leverage existing monies from multi-sector sources is also needed. Potential eligibility criteria could focus on ways cities achieve the co-benefits of preparedness for a range of disruptions including geologic and climate

disasters. Additional criteria to address multi-sectoral improvements that include residential and commercial sector efforts would complement existing public sector programs.

There is considerable need to have flexible and supplemental funds to bolster what can be accomplished with existing funding programs. Such a fund could leverage and expand existing funding programs at the California Energy Commission, Office of Emergency Services, Strategic Growth Council, MTC's CASA and housing grants, and the California Earthquake Authority by providing the gap funding needed to specifically increase resilience outcomes. Quite often these segmented efforts address sector-specific upgrades that are not comprehensively addressing both climate and natural disaster risks.

Having a state Chief Resilience Officer as part of such a strategy could strengthen the capacity of the differing partner stakeholders to overcome sectoral funding boundaries.

While it doesn't appear that there are many underutilized resilience-related funding sources in California, there is a significant gap in achieving comprehensive resilience solutions. For example, energy upgrades are being done all over the state that don't specifically incorporate seismic or other hazard-related improvements. Many MPOs have housing acquisition and rehabilitation funding programs that do not include earthquake safety retrofit requirements. A Precovery fund program could bring together these disparate funding streams and demonstrate how a comprehensive approach to risk reduction that can also address sustainability and affordability goals, ultimately creating a more resilient social and built environment.

Potential Funding Source:

Proposed Resilience Fund under consideration at the California Earthquake Authority; pilot funding from the Sustainable Growth Council; proposed funding from shifting allocation of Stafford Act Monies into the Pre Disaster Mitigation Grant Program

Partner Agencies:

Governor's Office of Planning and Research, Office of Emergency Services, Sustainable Growth Council, Metropolitan Transportation Commission and the California Earthquake Authority.

Timeline for Implementation:

Mid-term

SUPPORTING INITIATIVE: INTEGRATE CLIMATE & DISASTER RESILIENCE PLANNING

Climate change and natural disasters are undeniably intertwined, yet the ways in which state and local governments think about them and address them are not. Natural hazards have traditionally been the purview of geologists, engineers, and emergency responders while the new wave of energy around climate change has primarily stemmed from the sustainability, climate science, and coastal planning world. Policies, programs, and funding sources are typically separate, and even the departments and agencies addressing each aren't necessarily coordinated. Yet the hazards must be solved as a whole.

The State Chief Resilience Officer should be empowered to foster a multi-hazards approach that allows the state, and smaller jurisdictions, to analyze vulnerabilities and implement strategies to reduce risk in ways that are holistic. This involves coordinating requirements for analysis and plans, so cities aren't forced to do separate analysis and develop separate local policies for varying agencies and legislative requirements. It also involves flexible resilience funds that can be used to address holistic resilience problems, and provide cover for cities to conduct integrated planning processes.

SUPPORTING INITIATIVE: INCENTIVIZE CITIES TO REDUCE COMMUNITY RISK BEFORE DISASTERS & BUILD BACK RESILIENTLY AFTER

Current funding tends to be siloed and limits jurisdictions' ability to plan comprehensively for all phases of the disaster life cycle. Implementing projects is a challenge because jurisdictions need to align a suite of funding sources, each of which is tightly earmarked for different phases or components of resilience projects. After a disaster occurs, funds for rebuilding are often conditioned to replace the status quo, repeating the same cycle of damage and rebuilding. Making funds for resilience flexible and broad, while still being targeted towards meaningful resilience outcomes, could help streamline the process of reducing risk both before a disaster hits as well as building more resilient during the rebuilding phase after a disaster.

The state could consider piloting funding efforts with resources from various state agencies such as the California Energy Commission and the Strategic Growth Council to leverage local capacity to directly achieve resilient outcomes in the disaster, social, and climate spheres.

The state could develop priority funding eligibility criteria, for example prioritizing regions with high profile disaster and climate risks; continue implementation of a diverse energy portfolio with an emphasis on renewable energy innovations and implementation; and fund continued integrated state agency adaptation planning required by Executive Order B-30-15.

ECONOMIC OPPORTUNITY

With a GDP of \$3 trillion, California ranks as the world's fifth-largest economy and is home to several of the world's most valuable companies. However, this vibrant economy has also contributed to making California one of the country's most expensive places to live; not all residents are seeing the benefits of this economic growth. By working with public, private, and philanthropic partners, the State of California can consolidate resources and leverage new and existing programs to ensure that economic growth creates opportunities for all Californians.

KEY STRATEGY: LEVERAGE RESILIENCE FUNDING IN CALIFORNIA'S FEDERAL OPPORTUNITY ZONES

In 2017, Governor Brown approved the designation of certain census tracts as Opportunity Zones (OZs). This allows certain investments in these zones to defer or eliminate federal taxes on capital gains. This strategy recommends using the OZ tax incentive as a vehicle to support private/public resilience partnerships focused on productive economic activities at regional and local levels.

The program is attracting funders to public sector infrastructure and community/social investments by providing investment tax incentives for private sector spending. The program incentivizes long-term private sector investments to fund affordable housing, infrastructure systems, commercial development, and economic development initiatives in state-designated low-income communities.

California has convened a multi-department task force led by the Department of Finance which coordinated efforts to nominate eligible census tracts to the state, which were approved by the federal agencies in June 2018. The state has developed a defined investment approach, including available state disaster recovery and climate adaptation funding to appropriately leverage the private funds. It also provides support for local communities to innovate place-based resilience solutions and has an articulated implementation strategy for the program. California's OZ approach is focused on community engagement and investment-ready infrastructure. The state's working group is coordinating with local communities and investors to build on existing programs and promote "co-investment in transformative climate communities."

Following the recent release of technical guidance by the Treasury Department and the Internal Revenue Service, OZ communities will develop plans to partner with investors, philanthropies, and other key funders to ensure resilient solutions to local social and built environment challenges are co-created.

A California CRO can support the acceleration of engagement with local partners and project development processes. By applying lessons learned in California's four 100RC

cities and in the Bay Area Resilient by Design Challenge, the state's Opportunity Zone program could mainstream successful partner models in local California communities and ensure that those most at risk are equal partners at the planning table. The CRO can also leverage the global CRO cohort and to accelerate the program. Additionally, the state's existing climate change planning blueprint, *Safeguarding California*, benchmarks resilience outcomes that can be adapted for local application of place-based economic development processes.

The proposed California Resilience Institute could also provide support to Opportunity Zones by providing an incubator atmosphere, accelerating the development and implementation of new investment and development efforts through connections and relationships, mentorship, technical assistance, and by providing an advisory role to problem-solving.

Potential Funding Source:

Private sector capital gains monies invested in low-income communities, potentially leveraged with state resilience funds

Partner Agencies:

Department of Finance, Strategic Growth Council, California Energy Commission, State Office of Emergency Services, HUD's Disaster Recovery Program

Timeline for Implementation:

Long-term

SUPPORTING INITIATIVE: INCENTIVIZE THE PRIVATE SECTOR TO ESTABLISH RESILIENCE-BASED ECONOMIC DEVELOPMENT DISTRICTS

The Bay Area Economic Development District's nine-county alliance, established through the Economic Development Administration's Economic Development District (EDD) program, is a national model in the application of merging economic and physical resilience planning through multi-sector platforms. The Economic Action Plan (EAP) focuses on broad consensus, high priority actions and includes steps regional actors and partners can take to maintain the resilience of the Bay Area economy and extend benefits to a wider range of people. The EAP's goals on workforce, housing and work places and infrastructure synthesize regional recommendations that focus on specific actions that include identifying existing opportunities and developing new infrastructure funding resources and ways of augmenting availability at the regional level to reduce vulnerability to climate change and natural hazards.

Similar Economic Development Districts could be utilized throughout the state to tie together economic issues with resilience opportunities, using the Bay Area's program as a model.

SUPPORTING INITIATIVE: CULTIVATE PHILANTHROPIC & PRIVATE SECTOR PILOT FUNDING OPPORTUNITIES

Establish a pilot effort to explore development of a multi-sectoral, resilience funding hub, possibly through the California Resilience Institute, to strengthen public-private partnerships and streamline access to private capital and grant monies. This pilot can serve as a finance incubator to develop equitable processes for distributing funding, correcting historic institutional financing obstacles for infrastructure projects. Private sector support from impact investors, innovative private-public partnerships, and new federal funding programs can provide project funding to bolster public sector monies. Local partners could include regional community grant making alliances and local community and family foundations. These organizations have become helpful resources for funding outreach and for connecting with private sector funders. Developing a multi-sector finance strategy requires steady, intentional and diplomatic approaches to develop strong relationships with private grant-making groups and establish strong social and political networks.

LIST OF INTERVIEWEES

Jordyn Bishop, Greenlining Institute

Allison Brooks, Bay Area Regional Collaborative

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Paul MacDougall, Housing and Community Development

Steve Menendian, UC Berkeley Haas Institute for a Fair and Inclusive Society

Sona Mohnot, Greenlining Institute

Alvaro Sanchez, Greenlining Institute

Kif Scheurer, Local Government Commission

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