State of California
Little Hoover Commission
Public Hearing on Climate Change Adaptation
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Thank you for the invitation to testify before the Commission today. Your focus on governance for climate adaptation addresses the most critical near-term issue for aligning and strengthening the efforts of local, regional and state governments.

I currently serve as the Climate Strategist for the Bay Area Joint Policy Committee[1] and lead the JPC's *Bay Area Climate & Energy Resilience Project*, a collaboration of more than 100 public, private, and non-profit adaptation stakeholders. Our collaborative members address a wide range of Bay Area adaptation issues, including the impacts of heat, extreme storms, snow/rainfall shifts, sea level rise, and ocean acidification on the region's economy, public health, and natural systems. The project is funded by the Kresge Foundation and the JPC.

Before taking the JPC position in 2008, I consulted on climate-related projects for the Metropolitan Transportation Commission, the Bay Area Air Quality Management District, BART, the California Attorney General, the Marin Community Foundation, and Next 10. In 2012, I was a co-founder of a joint project of four California regional adaptation initiatives now known as the Alliance of Regional Collaboratives for Climate Adaptation (ARCCA).

The answers below to the four questions posed in your invitation letter are based primarily on a regional needs assessment conducted for the Kresge Foundation and the JPC in 2012-13 by the Bay Area Climate & Energy Project. This work included interviews with 100+ Bay Area adaptation stakeholders, an inventory of current Bay Area adaptation projects, and four "roadmap" overviews on social equity, governance, getting science information to decision-makers, and "win-win" strategies that both reduce emissions and promote adaptation. The reports and the proposed Action Plan that came out of the needs assessment are available at www.abag.ca.gov/jointpolicy/projects.html. We are currently fundraising

[1] The Joint Policy Committee, created by state legislation in 2004 to coordinate planning efforts among the Bay Area's regional agencies, now includes the Association of Bay Area Governments, the Bay Area Air Quality Management District, the Bay Conservation and Development Commission, and the Metropolitan Transportation Commission. For more information see www.abag.ca.gov/jointpolicy/.

to implement initial elements of the Action Plan, including a Bay Area climate action information and service "hub", set to launch in early 2014.

1. *What are the leading adaptation initiatives regarding climate change in the Bay Area and the early efforts to convene regional policymakers and stakeholders on the part of the Joint Policy Committee and others? Who is at the table? Please provide an overview of the region's response to date and its aims for the future. How does this compare with similar waterfront regions nationally? Where are the models and best practices which California's metropolitan regions might study?*

Our needs assessment and inventory identified 90+ projects and programs addressing Bay Area climate and energy resilience. While this is not a comprehensive list of all Bay Area adaptation activity, the inventory gives a good snapshot of adaptation efforts in the region in early 2013.

The largest number of projects and programs we identified are focused on coastal/bay protection from sea level rise and extreme storms. However, there are also substantial Bay Area projects on public health, water supply, energy supply, land-based ecosystems, and other adaptation topics.

The projects and programs are often multi-player partnerships and are led by local governments, special districts, regional agencies, non-profit organizations, academic institutions, and private entities. While many are focused on risk/vulnerability assessment and strategy development, some have now progressed to pilot projects or full implementation. Among the notable projects and programs we identified:

- *Cal-BRACE (Building Resilience Against Climate Effects)*, led by California Department of Public Health, that is building capacity among county health departments to develop climate/health adaptation plans.

- The *Climate-Ready Initiative*, a CDC-funded project led by the San Francisco Department of Public Health, focusing the impact of extreme heat and associated air quality events on highly vulnerable populations.

- *Adapting to Rising Tides*, a major sub-regional, multi-stakeholder pilot project, led by BCDC, to address sea level rise and storm impacts in Alameda County.

- The *Resilient Shorelines Strategy*, led by BCDC, ABAG, and the Coastal Conservancy, that will bring together local governments and other stakeholders to devise a regional approach to sea level rise, storm surge, earthquakes and other threats to bayside assets and resources.

- *Flood Control 2.0*, managed by the San Francisco Estuary Partnership, which is developing innovative approaches for four pilot areas on creek mouths in Contra Costa, Marin, San Mateo and Santa Clara counties.

- The *Ocean Beach Master Plan for Sea Level Rise*, a collaborative effort led by the SPUR to develop a long-range master plan for San Francisco's Ocean Beach to address rising seas within a natural, recreational and urban context.

- The *North Bay Climate Adaptation Initiative*, which brings together technical experts, land managers, and policymakers to develop adaptation strategies for North Bay watersheds, including an eventual countywide vulnerability assessment.

- The *Bay Area Ecosystems Climate Change Consortium (BAECCC)*, funded by the Moore Foundation, fosters collaboration on climate among more than 30 Bay Area ecosystems-focused organizations, and serves as a joint-action model for other sectors to emulate.

- Climate and water supply assessment projects conducted by the Sonoma County Water Agency, San Francisco PUC, EBMUD, Santa Clara Valley Water District and other sub-regional agencies.

- PG&E's work to assess risks to its energy sources and infrastructure from extreme heat, reduced snowpack, rainfall pattern changes, extreme storm events, and sea level rise.

- Projects and programs to build *local* energy resilience (and jobs) through renewable power and energy efficiency, led by Marin Clean Energy, BayREN, Joint Venture Silicon Valley, Bay Area Climate Collaborative, and others.

- Bay Localize's *Community Resilience Toolkit 2.0*, a set of online tools to help community organizations understand the local impacts of the global climate and energy crisis and how to devise solutions that build resilience in vulnerable communities.

The Joint Policy Committee's efforts on climate adaptation have focused on two initiatives. The first is the extensive work on sea level rise led by BCDC over the past few years. The history, current status, and future plans for this work have been detailed by BCDC in their testimony to the Commission. The second initiative is the Bay Area Climate & Energy Resilience Project, which was formed in 2011.

The purpose of the resilience project is to provide support and assistance to Bay Area adaptation stakeholders in order to accelerate and strengthen their adaptation planning activities. We are not conducting an official adaptation planning process for the Bay Area nor do we aspire to that role. Rather, we seek to add real value to BCDC, local governments, special districts and others who are actively planning how the Bay Area will prepare for climate impacts. We see this collaboration as a building a strong foundation for cooperative decision-making in the future.

A primary activity has been to conduct workshops and webinars that bring together adaptation stakeholders from the 9-county region to share best practices, form partnerships, and problem-solve key issues. Workshops in 2012-13 have addressed the following:

- Social equity and community engagement
- The multiple benefits of nature-based solutions
- Examples of smart adaptation planning in other regions—The SE Florida Climate Compact and Sustainable DC
- How-to inject climate adaptation into Bay Area planning processes
- Potential roles and responsibilities for state, regional, and local stakeholders

Over the next few months, it is expected that the project will grow significantly to become a Bay Area climate action center—addressing both adaptation and emissions reduction—through new funding from foundations and the public sector. This transition, in development for the last year, will create a regional "hub" that will support all adaptation stakeholders in the region with a focus on major initiatives such as the Resilient Shorelines Strategy, the proposed Vulnerable Communities Initiative, and coordinated local/regional planning for public health. The center will focus on four activities:

1. Securing public and private resources for major climate projects and initiatives.
2. Building political support in the region for accelerating climate action, including identifying champions across sectors.
3. Supporting and enhancing existing and planned projects by providing stakeholder access to technical assistance and information on climate science and best practices.

4. Facilitating a steering committee and working groups to identify major barriers/solutions, set climate-related indicators and measurable targets, and coordinate with state and federal climate programs.

There are a number of good models for adaptation planning in progress in metro areas around the U.S. Some of the most relevant for our Bay Area work include these three efforts:

The Southeast Florida Climate Compact
http://southeastfloridaclimatecompact.org/
The Compact is a multi-county approach to climate action. It was created by Broward, Miami-Dade, Monroe, and Palm Beach Counties in January 2010 to coordinate mitigation and adaptation activities across county lines. The Compact "represents a new form of regional climate governance designed to allow local governments to set the agenda for adaptation while providing an efficient means for state and federal agencies to engage with technical assistance and support." The partners work together to:

- Develop annual Legislative Programs and jointly advocate for state and federal policies and funding;
- Dedicate staff time and resources to create a Southeast Florida Regional Climate Action Plan to include mitigation and adaptation strategies; and
- Meet annually in Regional Climate Summits to mark progress and identify emerging issues.

Sustainable DC
http://sustainable.dc.gov/
Adaptation planning is nested within this broader citywide, "big vision" 20-year sustainability plan. The goal is to "make the District the healthiest, greenest, most livable city in the nation." The plan seeks a wide audience by "going beyond the environment to reach people where it truly matters: their wallets, their community, and their health." The plan features a positive, compelling vision for DC and thirty-one measurable targets covering a wide range of economic, social and environmental issues.

Sustainable DC was developed through a series of nine working groups composed of hundreds of stakeholders from the public, private and non-profit sectors coordinated by city staff. The effort was led by a Green Ribbon Committee, composed of city leaders convened by Mayor Vincent Gray.

PlaNYC

http://www.nyc.gov/planyc
Climate change (adaptation and emissions reduction) is a key component of New York City's comprehensive *PlaNYC*, released in 2007. This major effort, led by Mayor Bloomberg, is designed to "prepare the city for one million more residents, strengthen the economy, combat climate change, and enhance the quality of life for all New Yorkers." The Plan brought together over 25 city agencies to work toward the vision of a greener, greater New York. Climate adaptation was a major section of the plan *before* Superstorm Sandy and has received even more attention in the ensuing year.

Over 97% of the 127 initiatives in PlaNYC were launched within one-year of its release and almost two-thirds of its 2009 milestones were achieved or mostly achieved. The now-updated plan has 132 initiatives and more than 400 specific milestones for December 31, 2013.

2. *What does the San Francisco Bay Area need from the state? Given that cities and regions will assume the leading responsibility for adaptation and related land use issues, what would be helpful at the nexus of state government and local/regional government in terms of structures, guidance, grants and incentives? What might the Commission recommend to the state regarding its dealings with cities, counties and regions on climate change adaptation?*

The Bay Area needs support and resources from the state in order to address the key adaptation needs of local governments, special districts and other stakeholders. To begin, state agencies, coordinated by OPR, should consult with Bay Area adaptation leaders on specific ways they can assist regional efforts to deal with the four near-universal needs identified by the Climate & Energy Resilience Project.

- Stronger support from elected officials and other regional/state leaders for climate planning and action.
- New resources and more efficient uses of existing resources to significantly expand local/regional climate planning.
- Science information on Bay Area climate impacts, including improved access to existing information, guidance on how to use it, and new research/analysis to meet advanced needs.
- Information on adaptation projects, programs and major initiatives to promote use of best practices and to help align stakeholders in money-saving partnerships.

In addition, the state should assist Bay Area regional adaptation efforts to develop a series of important strategic actions requested by stakeholders in the needs assessment process, including:

- Creation of a *regional* planning process for adaptation topics that require inter-city and inter-county collaboration
- Increasing the focus on Vulnerable Communities
- Integrating adaptation with GHG reduction and carbon sequestration strategies
- Integrating climate adaptation with earthquake/disaster preparedness planning
- Securing additional resources for the public health sector which has the largest gap between needs and assets of any sector
- Rewarding innovation
- Working smarter and in more alignment with state government

To accomplish the above, the Bay Area needs state agencies to better understand Bay Area needs and to shift more to a "how can we help you" approach. State agencies contain many excellent staff and they have produced information-rich reports such as the California Adaptation Strategy and Local Government Adaptation Planning Guide, but state adaptation leaders must work with regional and local experts more as *partners*, and less in a top-down manner. There are important roles for each set of stakeholders—state, regional and local—and each must be respected for its particular contributions. The problem we are facing is much too large and immediate for the business-as-usual approach where each group works in semi-isolation and misalignment.

3. *Please describe for the Commission the evolution and purpose of the Alliance of Regional Collaboratives for Climate Adaptation (ARCCA). What is the process for members of different collaboratives to engage with one another in the statewide collaborative? How does ARCCA engage with the state? How does such an organization measure success? What are its goals?*

The Alliance of Regional Collaboratives for Climate Adaptation (ARCCA) was formed in early 2012 out of the urgent need to prepare California's urban centers for the emerging impacts of climate change, including extreme storm events, heat waves, droughts, and sea level rise. ARCCA currently brings together four Regional Collaboratives—from San Diego, Los Angeles, the San Francisco Bay Area, and Sacramento—that are coordinating and supporting local climate partners in projects to enhance public health, protect natural systems, build economies, and improve the quality of life in all communities.

ARCCA works through two basic strategies:

1. ARRCA members share information and intelligence among regions on best practices and lessons learned. We are identifying each region's most innovative and successful strategies and then determining how they could be adapted to another region's particular needs. This will reduce reinventing of the adaptation "wheel" while preserving regional identity and context.

2. The four regions are working collectively with the Governor's Office of Planning and Research (OPR) and relevant state agencies to create a partnership that will make the most efficient use of our limited resources and streamline state and regional adaptation assistance to local governments. We see opportunities for on-the-ground state/regional joint initiatives on climate adaptation research, funding, training, and communications, with the great potential to create a long-term partnership.

ARCCA was formed by regional climate adaptation leaders in California's four largest urban centers in conjunction with OPR. In each of these four regions, multi-stakeholder collaboratives have been formed—the Climate Collaborative (San Diego region), the Los Angeles Regional Collaborative for Climate Action and Sustainability (LARC), the Bay Area Climate & Energy Resilience Project, and the Sacramento Regional Adaptation Collaborative (SacReady). These regional groups include a wide range of public, private, non-profit, and academic institutions.

An MOU governs ARCCA's activities and structure. Additional California regions will be added to ARCCA as they develop their own capacity and collaborative structures. At the same time, we will widen and deepen our joint state/regional agenda to make our urban centers stronger, more prosperous, and more sustainable.

4. *What institutional and governing barriers frustrate efforts to organize effective regional responses? How, in short, should this entire adaptation process be governed? What are the regions learning from one another? And what kind of actions should regions be undertaking today with regard to their most vulnerable populations – those most likely to bear the brunt of changing climate patterns?*

The Bay Area is a complex environment for climate adaptation, involving in the public sector alone, 9 counties, 101 cities, hundreds of special districts (water supply, wastewater, energy, flood control, etc.), 4+ regional agencies, and a maze of state/federal agencies. We are home to multiple urban centers, two regional business associations plus important sub-regional business networks, four community foundations, an extensive collection of non-profit advocacy and community organizations, and a relatively highly-engaged public.

This complex, decentralized environment is both a strength and a weakness for climate adaptation. The strength comes from the innovative thinking and initiative that has already been shown by a number of stakeholders; they are not waiting for a state or regional plan. The weakness shows as duplication of effort, no clear, agreed-upon goals, and slow progress on major issues that require inter-city collaboration. The future structure for Bay Area adaptation planning therefore must be carefully constructed to encourage and support innovation and initiative while developing collaborative action plans for specific top priority regional issues.

A second barrier facing the Bay Area is that most residents see themselves as members of a particular sub-tribe, e.g., Silicon Valley, San Francisco, Napa Valley, Marin, or Berkeley, not as part of a "region" of 7 million people. However, we are very inter-dependent, everyday using networks of road, transit, energy, water and communications infrastructure where a failure in one "local" area can have significant impacts on millions of residents elsewhere. We must do a better job of telling this regional story on climate adaptation to create more buy-in for region-wide discussions and eventually joint action on top issues.

Finally, most experienced adaptation stakeholders in the region understand that local land use decisions are going to play a very large role in determining how successful the Bay Area is in building its resilience to climate change. Where we house the next one million residents within the Bay Area will make a major difference not only for addressing sea level rise and coastal flooding, but for dealing with extreme heat events, and energy and water shortages. In addition, the region may see a major shift towards cooler coastal sub-regions that would bring increased competition for limited land area among housing, business, agricultural, and recreational interests. For all these reasons, it is paramount that we create a structure for local land use decisions that will also address critical regional and statewide concerns.

The state should help the Bay Area to address these barriers to benefit both (a) voluntary collaborations among sub-regions and stakeholders and (b) regional/local decision-making. We recommend the following:

1. Provide funding and institutional support to regional adaptation collaboratives that are bringing together diverse stakeholders to share best practices, solve common barriers, and create a common regional agenda (including measurable targets).

2. Require each metro area to create an official regional/local process to address decision-making for climate adaptation, including local land use. One size does not fit all for climate adaptation in California urban centers. Therefore, require a structured process, but let each region design one that works for its specific adaptation issues and political environment.

3. Provide incentives to local governments and adaptation stakeholders that will produce significantly greater regional cooperation and accelerate climate adaptation planning.

While climate change will affect all Bay Area residents, certain vulnerable communities and populations will be hit hardest. For example, low-income residents without adequate health care and those with pre-existing health conditions such as asthma, will find it difficult to deal with increased heat and poorer air quality that result from climate change. Similarly, price increases on basics such as food and energy that result from climate impacts will be particular burdens for low-income communities. To shed light on these issues in the Bay Area, we commissioned *Bay Localize* to lead a coalition of community-based organizations to undertake an initial overview study on vulnerable communities as part of the needs assessment for Kresge Foundation and the JPC. The full report, *Mapping Our Future: A Work Plan for Public Engagement and Social Equity* be viewed at:
http://www.abag.ca.gov/jointpolicy/projects.html#climate

Bay Localize and the community-based organizations that partnered on the report recommend a three-stage set of next steps to begin to address vulnerable communities in Bay Area adaptation planning:

Stage 1: Conceptualizing and Funding Regional Adaptation Planning

1. Identify and earmark considerable public funds to create and implement climate adaptation plans.
2. Include the economic impacts of climate change on low-income households as one of the major climate impacts, especially rising costs of food, water, and basic needs.
3. Partner with organizations in vulnerable communities from the very beginning of the process about how planning will be done and who will be involved.

Stage 2: Climate Adaptation Planning

1. Identify highly vulnerable residents throughout the Bay Area.
2. Partner with community groups in determining how to allocate

adaptation spending for both infrastructure and community resilience investment.

3. Create regional and local adaptation plans based on results from community partnerships. Ensure compliance with existing legal mandates, including the federal and state Civil Rights Acts and Health in All Policies.

Stage 3: Implementation

1. Connect job seekers from targeted vulnerable communities with jobs that build local climate resilience.
2. Partner with community groups on evaluating how plans are being implemented.
3. Support community groups in conducting education on climate impacts emergency response in multiple languages and in ways that are culturally relevant.