

# ASSOCIATION OF BAY AREA GOVERNMENTS

Representing City and County Governments of the San Francisco Bay Area



**ABAG**

Date: January 8, 2015  
To: ABAG Executive Board  
From: Danielle Hutchings Mieler  
Resilience Program Coordinator  
Subject: **Advancing Bay Area Resilience**

## Executive Summary

This memo describes ABAG's integrated approach to resilience planning and the evolution of the earthquake program over forty years at ABAG. As our program has grown and become more integrated with other planning work at ABAG, we have changed the name of the earthquake program to the resilience program. This memo also describes three key resilience projects focusing on infrastructure, regional resilience planning, and implementation of the policy agenda developed by ABAG and partners for the 25<sup>th</sup> anniversary of the Loma Prieta Earthquake.

## Integrated Planning Approach

ABAG has been involved in hazards identification and risk mitigation planning since 1974. ABAG's contribution to hazard reduction has focused on convening local governments to jointly plan, share best practices, and develop regional assessments to build resilience. Staff develops and disseminates scientific information in understandable and accessible ways to facilitate good policy and planning decisions, provides model policies and programs for local governments to implement mitigation and recovery plans, and improves seismic resilience of housing through improved retrofits, better enforcement of codes, training and education, and financial incentives. In partnership with member cities and counties, ABAG contributes to the region's capacity to leverage community resilience initiatives.

The program has been enriched by embracing resilience as an encompassing framework for examining multiple hazards and their relationship to the broader region. We have moved from a single focus on earthquake hazards to examining the interaction between multiple hazards. For example, in recent years, ABAG has worked closely with BCDC staff to examine the intersecting hazards of flooding, earthquake shaking and liquefaction. Also, beyond the traditional approach to natural hazards management, resilience depends not only on protecting assets, but on building communities that prosper and thrive in the face of ongoing stressors and unexpected shocks. This broader framework helps us understand how the community planning work we do at ABAG not only improves quality of life for Bay Area residents, but it improves our resilience as well.

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The program has begun to take a deeper dive into community and neighborhood scale planning, and to develop close partnerships with member cities and counties to implement strategies and best practices that have been identified over previous decades.

To better capture the breadth of our work and its relationship to other major regional planning initiatives under way, we have recently changed the name of the Earthquake and Hazards Program to the Resilience Program. The focus of the program is on **research, planning, and action for a resilient Bay Area**. The Regional Planning Committee, at its October 1, 2014 meeting, endorsed staff's recommendation to reposition and rename the program.

### Current Resilience Projects

Three of our current projects exemplify our new integrated planning approach.

Infrastructure Resilience Project. The Bay Area's resilience is largely dependent upon the performance of buildings and infrastructure systems in seismic events. Our homes and businesses are only active when they are habitable and connected to the services upon which they rely: water, sewer, electricity, communications, natural gas, fuel, transportation. In an earthquake, building and infrastructure damage will be confined primarily to areas of strong shaking. Infrastructure outages however, will cascade outward beyond areas of strong shaking and liquefaction, impacting areas downstream of the failures. Infrastructure outages following an earthquake can impact the entire region at once. Some infrastructure repairs will be quick, while others will take months and years, leaving some communities without service for an unacceptable length of time.

The Infrastructure Resilience Project maps regional airports, transportation (highways & passenger rail), fuel, electricity, and water systems, and highlights their interaction with seismic hazards. The study illustrates the potential consequences of system damage. The key findings warrant keen attention from local, regional, and state actors to understand the regional impacts of damage to infrastructure systems and the interactions among systems. The results of this study will inform the regional risk assessment of the Regional Resilience Plan. The final report is included in attachment 1.

Regional Resilience Plan. Community goals to foster a sustainable, resilient Bay Area cannot be achieved without adequately addressing the hazards and risk that threaten the region. Towards this end, ABAG is beginning development of a Regional Resilience Plan which will, in coordination with BCDC, California Coastal Conservancy, MTC and the JPC, combine a number of regional planning processes under a single umbrella to support long-term community sustainability and livability. The plan will have four major components:

- **Develop a Bay Area risk landscape document and compendium of mitigation and adaptation actions to address the major hazards we face.** The assessment will be based on currently available reports and studies and will be both regional assessment as well as a technical resource to aid local jurisdictions in the update of Local Hazard Mitigation Plans. The current and future flooding component of this work will be undertaken in close partnership with BCDC staff.
- **Support member cities and counties in updating hazard mitigation plans** and facilitate integration of these plans with the local general plan safety element, climate

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action plan, climate mitigation plan, and energy and resource conservation plan. Jurisdictions will be responsible for completing and adopting their own plans, but ABAG will host workshops, connect jurisdictions with subject matter experts, streamline the plan development process to save time and money, and free up jurisdictions' resources to focus on developing and implementing their mitigation and adaptation strategies.

- **Provide technical implementation assistance** to selected jurisdictions and develop tools, guidance and meaningful lessons learned that can support replication of best practices by other jurisdictions.
- **Promote a regional resilience policy platform**, in partnership with ABAG member cities, counties and key regional and state stakeholders, as promoted by the Loma Prieta 25<sup>th</sup> Anniversary Symposium that enhances the region's resilience and focuses on the performance of housing.

Loma Prieta 25th Anniversary Policy Symposium. The 1989 Loma Prieta earthquake galvanized the region to make community safety an essential priority. The lives lost and communities damaged spurred the entire Bay Area – city by city, neighborhood by neighborhood – to organize for better emergency response, rebuild and strengthen essential buildings and utility systems, and embed resilience into public policies and programs.

In the last 25 years, much action has been taken to improve regional resilience and bring communities together. But there is still more to do. With the anniversary of Loma Prieta, the Bay Area took the opportunity to look forward, and inaugurate planning for the next 25 years, to renew our commitment to community resilience, and build on the exemplary progress we have made together.

Symposium sponsors engaged leading-edge experts, cities, regional, state and federal agencies in a dialogue about the Bay Area's future and developed a consensus action plan to improve the resilience of Bay Area communities. Over the coming three years ABAG staff will work with these partner organizations to advance policies to make the region more earthquake-safe by:

- Enacting statewide guidelines for the identification, evaluation, and retrofit of seismically unsafe "soft-story" apartment and condo buildings;
- Establishing a regional financial incentive program for improving the seismic safety of apartment and condos;
- Encouraging adoption of building code improvements to increase the seismic performance of new and existing buildings and ensure that building codes meet community performance expectations, and;
- Convening an alliance of utility, cities and regional agencies to examine disruption risks to regional utility systems, further assess system connections, and develop a regional strategy to foster lifeline resilience.

(See attachment 2)

### Recommended Actions

Staff recommends that the ABAG Executive Board endorse the new resilience program direction and adopt the regional resilience policies promoted through the Loma Prieta 25<sup>th</sup> Anniversary policy symposium.

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### Attachments

1. Cascading Failures: Earthquake Threats to Transportation and Utilities
2. Loma Prieta 25 Regional Resilience Policies

Cc: Ezra Rapport, Executive Director, ABAG  
Steve Heminger, Executive Director, Metropolitan Transportation Commission  
Jack Broadbent, Executive Officer/APCO, Bay Area Air Quality Management District  
Larry Goldzband, Executive Director, SF Bay Conservation & Development Commission  
Alix Bockelman, Deputy Executive Director, Metropolitan Transportation Commission  
Miriam Chion, Planning and Research Director, ABAG  
Ken Kirkey, Planning Director, Metropolitan Transportation Commission  
Allison Brooks, Executive Director, Joint Policy Committee