

ASSOCIATION OF BAY AREA GOVERNMENTS

Representing City and County Governments of the San Francisco Bay Area



ABAG

Date: January 15, 2015
To: ABAG Executive Board
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Subject: **Loma Prieta 25 Regional Resilience Policies**

BACKGROUND

In 2014, the anniversaries of the Loma Prieta and Northridge earthquakes focused attention on the profound physical and social impacts the state experienced in the 1989 and 1994 disasters. To commemorate those events, elected and appointed officials, seismic safety and public policy experts and community leaders convened conferences to map out resilient solutions to earthquake risk. Discussions at the two symposia focused on the consequences of the earthquakes; recognized the safety and policy accomplishments that resulted from the events; and explored actions needed to improve earthquake resilience.

Participants committed to making progress on improved public policies and program implementation for a safer California. At the January 2014 Northridge 20th Anniversary Symposium (NR20) in Los Angeles, participants generated a “Statement of Support” for a suite of resilience policies. Ten months later in the Bay Area at the Loma Prieta 25th Anniversary Symposium (LP25) participants followed by identifying five priority community safety actions to promote in the coming three years that would address the most urgent public risks identified by the earthquake engineering research community.

In 2015, NR20 Working Groups will refine broad-ranging policy and technical findings into a policy framework regional and local government can adapt for improved seismic safety measures.

As this proceeds, LP25 participants will launch a campaign to pursue the priority policy actions. The October event was the launch point for a three-year public policy program to improve state and local laws that address community safety and resilience. Bay Area stakeholders promoted a legislative program to update building codes to incorporate performance-based standards; to seismically improve soft story apartment buildings; to develop financial incentive programs to spark mitigation; and, the convene lifelines providers in a regional dialogue. ABAG is serving as the public policy hub on resilience policy with local jurisdictions, and supports integrating these policies into ongoing planning. The Regional Planning Committee endorsed the measures in October 2014, and recommended their adoption by the Executive Board.

MITIGATION ACTION IS NECESSARY

As seen in the August 2014 Napa earthquake, California communities can suffer substantial damage in moderate earthquakes. State and local communities face significant disaster risk despite progress in improving new building standards, retrofitting existing vulnerable buildings, and significant infrastructure upgrades. Engineers have developed effective solutions that address earthquake safety issues so that current building code standards largely ensure that buildings and service systems can withstand seismic



forces. However, building standards tend to focus on life-safety, not on post-disaster habitability, and state-of-the-practice improvements to known vulnerable building types are not consistently applied.

Some reasons for continued disaster vulnerability include uneven enforcement of existing seismic safety laws, expense of upgrading existing buildings, few financial resources for resilience investment, and perception of risk as marginal and relatively remote. These barriers are serious impediments to risk reduction even though local jurisdictions, regional agencies and utility firms control decisions about mitigation. The difficulty in reducing disaster risk is primarily a social/political issue. Community leaders are slow to implement safety solutions typically seen as expensive and cumbersome solutions to marginal and remote risks. Though this reasoning is understandable given concerns about social equity, providing quality public education, good jobs and affordable housing, however all suffer in a disaster without prudent mitigation actions.

The Bay Area recommendations address gaps in current state and local safety requirements for **existing homes and apartment buildings that are not built to withstand major seismic damage**. Building code standards do not guarantee that buildings will be usable after a damaging earthquake. California laws aim for minimal life safety protection that **intend**, but do not ensure, survivability of the people in the homes or apartments. There are few legal requirements for the seismic retrofit of homes and apartment buildings, and those in place are triggered when the cost of a building renovation exceeds 50% of the building's value. When these requirements are triggered, there is no standard which the retrofit must meet. Though ABAG and other regional and state agencies have developed guidelines recommending how to upgrade single-family homes, these measures are not mandated, only recommended.

Further, multi-unit apartment buildings pose significant risk in Bay Area communities. Soft-story buildings with open parking or commercial spaces on the ground floor collapsed in the Loma Prieta and Northridge earthquakes and are prevalent in the region. Approximately 25,000 multi-family buildings have been identified as potential soft-story buildings. These buildings are a significant affordable housing resource and reducing earthquake risks posed by these apartment buildings is a substantive community safety issue. Without mitigation measures to reduce risk, the region could potentially see significant loss of life and injuries to people in a major disaster and communities could suffer from a serious housing crisis and delayed long-term recovery.

Another substantial challenge is the safety and post-disaster operability of utility service systems. Though the Bay Area utility providers have done a great deal to secure their systems and restore service after disruptions, it's important that communities more effectively connect with the service providers. The region can continue to assess the vulnerability of inter-connected service systems (power, natural gas, water, transportation, telecommunications, etc.); comprehensively develop pre-disaster restoration plans; and, improve efforts for back-up services when needed.

A crucial next step is to regularly connect regional stakeholders across sectors and services. Communities and regional partners need to meet with utility providers to assess how dependent systems and community users can better coordinate planning and managing service disruptions. ABAG's recent findings on infrastructure vulnerability and interdependencies will be essential in starting the larger Bay Area dialogue (see Attachment 1).



WHAT IS NEEDED TO ADDRESS REGIONAL SEISMIC SAFETY

ABAG's LP25 Symposium was an opportunity to engage senior leaders and public policy experts in advocating for community and regional resilience action. The agencies and groups partnering with ABAG included the California Earthquake Authority (CEA); the U.S. Geological Survey; the California Geological Survey; the Structural Engineers' Association of California (SEAOC); the Structural Engineers Association of Northern California (SEAONC); the Pacific Earthquake Engineering Center (PEER); the Earthquake Engineering Research Institute (EERI); and the California Seismic Safety Commission (CSSC).

This core group developed a regional agenda for collective action that calls for making residential buildings safer; ensuring local building codes require better retrofit standards; developing financial incentives and resources for seismic upgrades; and, coordinating safety efforts with utility providers. The policy recommendations developed by ABAG, in consultation with the partner groups, distill expert technical guidance from the Northridge 20th Anniversary Symposium Summary Report.

The next step for 2015 is to promote these strategies to build Bay Area resilience. ABAG, in partnership with member cities, counties and key regional and state stakeholders, will be a policy hub to mainstream this effort in many planning programs. Plan Bay Area, local hazard mitigation plans and regional resilience planning projects are conduits through which staff can encourage specific measures for implementation.

The LP25 recommendations include measures that:

1. **Enact statewide guidelines for the identification, evaluation and retrofit of seismically unsafe "soft story" apartment and condo buildings** through state agency rule-making processes, in coordination with the California Seismic Safety Commission (CSSC), the Housing and Community Development Agency and approval by the State Building Standards Commission.
2. **Establish regional financial incentive programs for improving the seismic safety of apartments and condos** modeled on energy efficiency programs. These initiatives (through programs like California First and Renewable Funding) provide seismic and energy retrofit resources for property owners to leverage local safety, renovation, and other incentive support. State legislation has opened access to property-assessed, long-term funding for seismic safety programs that require jurisdictions to adopt resolutions for program approval.
3. **Adopt building code improvements to increase the seismic performance of new and existing buildings and ensure that building codes meet community performance expectations.** ABAG, CEA, and CSSC can guide policy and technical assistance efforts. SEAONC and SEAOC can be used as a resource for specialized support for local governments and communities to adopt state-of-the-practice standards that safeguard seismically at-risk buildings and provide substantive, performance-based guidelines that enhance seismic resilience in new construction and retrofit programs.
4. **Establish a State Lifelines Council** in coordination with the California Seismic Safety Commission partnering with the Pacific Earthquake Engineering Research Center, a consortium of academic and research experts from ten west coast universities. Tap pertinent state agencies to join the Council, including the CPUC, Department of Transportation, California Energy



Commission and Department of Water Resources. Launch two pilot regions for the initial planning efforts.

5. **Convene Regional Lifelines Councils in the S.F. Bay Area and Southern California** to serve as the initial two-year pilot projects of a State Lifelines Council. Partner with the Department of Homeland Security’s Office of Infrastructure Protection, the Metropolitan Transportation Commission, other regional agencies and local governments to examine disruption risks to regional utility systems; further assess system connections; and, develop a regional strategy to foster lifeline resilience.

LAUNCHING REGIONAL POLICY ACTION

To effectively promote education, discuss and recommend adoption of the regional policies emanating from the LP25 symposium, ABAG staff will:

- Endeavor to build a Bay Area wide “resilience community of practice” among elected and appointed staff and community stakeholders who are the most focused on implementation of the policy recommendations from the LP25 policy symposium;
- Convene regional focus groups to identify key issues and to recruit an advisory working group comprised of local elected officials, regional stakeholders and community leaders;
- Develop an in-depth report outlining the LP25 policies, issues they address and needs for implementation at regional and local levels, as well as executive summary-style materials that feature existing promising practices, sample program guidance, and sample review and adoption process timelines;
- Brief and coordinate with ABAG standing committees and boards (e.g., RPC, PLAN, FAN) and other regional agencies and stakeholder bodies to ensure integration with other regional planning and implementation efforts, and the Bay Area county meetings of mayors & city managers to ensure local linkage;
- Brief and coordinate at the state level with CalCOG, CSAC, CSSC, League of Cities, Office of Planning and Research, Housing and Community Development, USGS, CalOES, and FEMA.