



Long-Term Housing Recovery

The Problem Is...

In one scenario, if the 1868 Hayward earthquake (which occurs about once every 140 years on the **southern** Hayward fault) were to happen today, it could result in approximately 90,000 uninhabitable units (80-85% in multifamily buildings), displacing approximately 220,000 people and resulting in 60,000-70,000 people seeking temporary public shelter (based on ABAG modeling). This example is not the worst case, but since it has been 140 years since this earthquake, this is a likely scenario.



Damage to Housing in 1989 Loma Prieta Earthquake

In the immediate aftermath of a disaster, the American Red Cross and others set up mass care and shelters. Many others stay with friends, leave the impacted area, or set up RVs or tents next to their homes. Over the next 90 days, shelters close as those made homeless transfer to “interim” housing. Long term rebuilding can easily take a decade. Because of the finance and housing markets, multi-family housing is particularly slow to rebuild, as is low-income housing. Thus, the most vulnerable populations and the most vulnerable housing types are hit hardest – and longest.

FEMA provides “Individual Assistance” directly to people who have lost their homes in a disaster – whether or not they owned the homes. This money is not intended – and does not – take the place of earthquake insurance. It does not make people or families “whole.”

At the same time, only about 1 in 8 homeowners and renters have purchased earthquake insurance – and these policies tend to be held by risk-adverse people who live in newer homes or have retrofitted their homes to be less vulnerable.

While local governments in the Bay Area may pride ourselves in being more prepared for a disaster than Louisiana or Mississippi in Hurricane Katrina, we are unprepared to manage long-term recovery of housing.

Who is in Charge?

The problem is not simply fixed, for the solution involves the complex interaction of local, state, and federal governments, along with non-profit organizations, neighborhood and equity advocates, a variety of for-profit and non-profit housing developers, environmentalists, business groups, and historic preservationists.

The essential first step in planning for long-term housing recovery is an agreement on who is responsible for what actions, when coordination is required, and a willingness to “forfeit” some control in favor of a broader recovery strategy that partners government with representatives of these other interest groups.

The planning effort requires that people who don't think about disaster planning as a normal “job” – do so. If we don't, we're all to blame.

An earthquake can be 30 seconds of “instantaneous” redevelopment. The odds are that the Bay Area will have at least one potentially catastrophic earthquake in the next 30 years.

Our goal is to ensure that the earthquake does not cause a devastating long-term disaster.



“Tent City” in Golden Gate Park in 1906

TRANSITIONS FROM SHELTER – The Housing Assistance System

Currently, the American Red Cross provides short-term shelter, typically in schools, community centers, and churches. The shelters are intended to be for a few days to a few weeks.

Longer-term housing is available from FEMA through a system of housing vouchers. At the same time, organizations such as the Red Cross, Mennonite Relief Services, and other church groups and non-profits mobilize to build and repair housing.

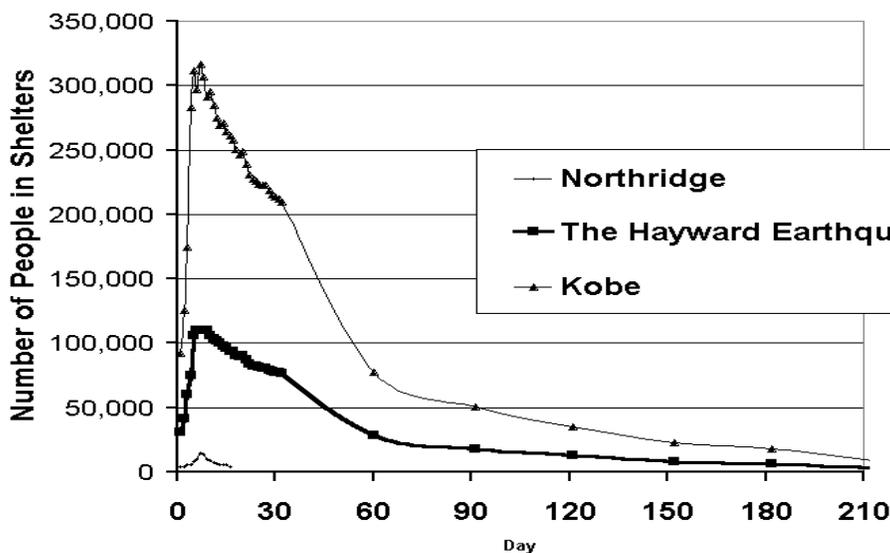
After a fire, most homes are covered by fire insurance. Today, less than 15% of Bay Area homes have earthquake insurance.

After an earthquake, there will be three huge challenges:

- (1) Immediate sheltering – where the American Red Cross is the lead agency.
- (2) Short-term or interim housing.
- (3) Long-term replacement housing.

No single organization is in charge of short-term or long-term housing.

A Modeled Hayward Scenario (on the Combined Northern and Southern Hayward Fault Segments) for Shelter Demand Compared to the 1994 Northridge Earthquake and the 1995 Kobe Earthquake¹



SOME DEFINITIONS –

Interim Housing

Given the number of homes lost, communities need to plan to locate “interim” housing – that is, short-term housing that can be in place for **one month to two years** – preferably on sites close to the damaged housing. (To the extent that displaced residents can remain near their previous homes, economic impacts are reduced.)

Interim housing will be needed because those organizations “donating” temporary shelter space need to reclaim that space for its original uses as schools – community centers – churches – that serve the community.

Replacement Housing

At the same time as interim housing is being installed, long-term replacement housing needs to be planned for and built. Traditionally, communities strain as conflicting views of the area’s future emerge in the pressure-cooker of environmental, economic, and equity views. At the same time, local neighborhoods want to rebuild as soon as possible in exactly the same way as they were before the disaster without realizing that the region has changed.

The Bay Area FOCUS process allows this region to jointly develop a shared vision of our future even after devastating disasters.

¹ Source: *Preventing the Nightmare: Post-Earthquake Housing Issue Papers* (ABAG, 2000). For comparison, Hurricane Katrina displaced 1.7 million people.

Estimated Recovery Times for Housing in Past California Earthquakes¹

Building Type	Recovery Time (For 90% Repair or Rebuilding of Units)	
	Loma Prieta	Northridge
Mobile Homes	0.1 years (minimum; no actual data)	0.7 years
Single-Family Homes (Red-Tagged)	2.4 years (if assume <i>all</i> missing dates are due to poor data) – to over 10 years if assume they are not	3.4 years (if assume <i>all</i> missing dates are due to poor data) – to over 6 years if assume they are not
Multifamily (Yellow-Tagged)	Less than 0.1 years (data from San Francisco only, since data not available for Oakland and tagging not used elsewhere)	4.0 years (if assume <i>all</i> missing dates are due to poor data) – to over 6 years if assume they are not
Multifamily (Red-Tagged)	Over 10 years (only 80% of units rebuilt after over 10 years)	3.8 years (if assume <i>all</i> missing dates are due to poor data) – to over 6 years if assume they are not

Ideas for Local Government Action

The experiences of local governments following the Northridge and Loma Prieta earthquakes were remarkably similar, as shown in the above table.¹ Ideas for action to speed up the recovery process were developed following those disasters,² but not widely implemented. More recently, however, the slow recovery of housing following Hurricane Katrina has again made clear that a coordinated regional effort is essential. The actions below are based on past recommendations,² as well as visits to the areas impacted by Hurricane Katrina.

Summary of Possible Action	Department
Work to provide incentives for the strengthening of existing single-family homes, particularly the “cripple walls” of older homes (that is, the outside wall of the crawl space below the floor one walks on and the perimeter foundation). “Best Practice” communities are Oakland and Berkeley.	Building
Work to mandate strengthening and/or provide incentives for the strengthening of existing multifamily housing, particularly those with “soft stories” (that is, where the first floor is open to allow for parking or retail). “Best Practice” communities are Fremont and Berkeley.	Building
Identify and maintain a list of potential locations and sources of local temporary housing that might be useable for an extended period of time after the emergency shelters have closed. Possible sources include motels, hotels, government-owned housing, and parks.	Planning
Set up special procedures for reviewing plans, granting permits, and scheduling inspections to promote self-help and contractor-assisted repairs. The building, planning, and housing department staff will need to process huge numbers of permits in a short period of time, many of which will be submitted for approval by those not familiar with the process. Thus, procedures to integrate and streamline the process will be incredibly helpful. This time of stream-lined permit processing was used effectively by the City of Oakland following the East Bay Hills Firestorm.	Community Development
Monitor the rents and prices landlords and contractors charge to help assure that rates remain in acceptable ranges. Consider controls on prices and rents if these do not remain in normal and acceptable ranges. (Since housing supply will drop, economic pressures will be for prices to rise. Any controls may make rebuilding slow, so an “acceptable range” is a policy decision.)	Community Development and Elected Officials
Ensure that the local governments General Plans (particularly, the Safety, Housing, and Land Use elements) are up-to-date and consistent with local zoning so that the future of damaged areas is pre-planned, not decided in a crisis environment. Such pre-planning will also improve the chances that fewer areas experience gentrification.	Planning

¹ Source: *Preventing the Nightmare: Post-Earthquake Housing Issue Papers* (ABAG, 2000).

² The problem of recovery of the Bay Area’s housing stock following a major disaster has been considered before. In 1991, the Bay Area Earthquake Preparedness Project (BAREPP) of State OES prepared *Earthquake Recovery and Reconstruction – Planning Guidelines for Local Governments*. About ten years later, the newly named OES Earthquake Program developed a short report, *Post-Earthquake Housing Recovery: Issues for Local Government and the Community*. Both the housing sections of the 1991 document and the entire 2000 paper are available at <http://quake.abag.ca.gov/recovery>.



NEXT STEPS FOR ABAG –

The following issues were discussed at the Regional Planning Committee meeting in April 2008.

ROLE FOR REGIONAL COORDINATION

What, if any, is the role of ABAG or other regional forums for coordination of long-term housing recovery?

How can ABAG’s Regional Planning Committee and the Sustainable Communities Strategy process play a role in developing regional recovery planning principles and priorities that are designed to be adaptable in a variety of disasters to speed recovery?

COMPREHENSIVE PLANNING

ABAG and this region’s local governments can look at what we now know will likely be damage in future earthquakes to “soft-story” multifamily housing and older single-family homes.

What is the balance between (a) focusing on mandating seismic retrofitting of these existing hazardous buildings – or, (b) assuming they are not fixed, envisioning how these heavily damaged areas should be rebuilt?

How can we best ensure that existing General Plans and Zoning are consistent so that the future of these damaged areas is pre-planned, not decided in a crisis environment?

NEEDED CHANGES IN STAFFORD ACT

The Stafford Act (the federal law providing FEMA with rules on rendering assistance to local governments and individuals following disasters) contributes to delays in housing recovery. For example, FEMA can pay for interim, but not permanent, housing.

Thus, FEMA paid for thousands of trailers to serve as interim housing following Hurricane Katrina at a cost of \$70,000 per unit, but could not pay roughly \$30,000 per unit to rehab moderately damaged apartment units that would then serve as both interim and permanent housing. The Louisiana Recovery Authority then proposed that FEMA money might be used to guarantee an income stream to the owner with a long-term lease of 24 months, allowing the owner to then obtain a loan for the rehab work. While FEMA staff was hopeful that this process could work, it never happened.

Staff recommends that ABAG and other organizations should work to design and or support proposed legislation to modify the Stafford Act. Other changes are needed that are not specifically related to the treatment of housing recovery.

CREDITS – Prepared by Jeanne Perkins. **PHOTO CREDITS** – U.S. Geological Survey–page 1 (left); U.C. San Francisco History Library–page 1 (right), U.S. Geological Survey–page 4.