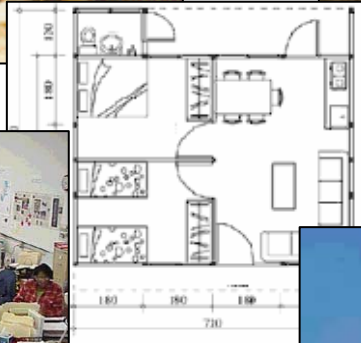


# POST-DISASTER HOUSING ANNEX

## MARIN OPERATIONAL AREA EMERGENCY OPERATIONS PLAN



**DECEMBER 2003**



Marin County Sheriff, Office of Emergency Services  
3501 Civic Center Drive, Room 266  
San Rafael, CA 94903  
415/499-6584  
415/499-7450 (fax)  
<http://www.co.marin.ca.us/disaster/>

**RESOLUTION NO. 2003-165  
RESOLUTION OF THE MARIN COUNTY BOARD OF SUPERVISORS**

**WHEREAS**, the preservation of life, property, and the environment is an inherent responsibility of local government, and

**WHEREAS**, a major disaster, such as earthquake or wildfire, could cause large numbers of Marin County residents to lose their homes, and

**WHEREAS**, it could months and years to repair or replace the homes, and

**WHEREAS**, in 2001, the Marin County Disaster Council appointed a committee develop and coordinate post-disaster housing strategies for the Marin Operational Area, and

**WHEREAS**, the Post-Disaster Housing Committee, consisting of 15 representatives of local agencies, community groups, County government, state organizations, and the Federal Emergency Management Agency, did develop an Annex to the Marin Operational Area Emergency Operations Plan, and

**WHEREAS**, the Marin County Disaster Council reviewed and voted to recommend to the Board of Supervisors for adoption of the Post-Disaster Housing Annex on June 12, 2003,

**NOW, THEREFORE, BE IT RESOLVED**, that the Board of Supervisors of the County of Marin hereby takes the following action:

1. Adopts the Post-Disaster Housing Annex ("Annex") to the Marin County Emergency Operations Plan as presented to the Board and attached to this Resolution.
2. Delegates maintenance of the Annex to the County's Program Manager of Emergency Services as per Marin County Code Section 2.99.035.

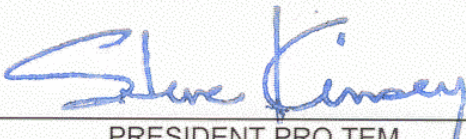
**BE IT FURTHER RESOLVED**, by the Board of Supervisors of the County of Marin that the effective date of the Annex shall be December 16, 2003.

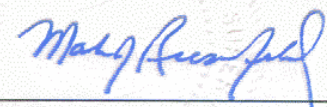
**PASSED AND ADOPTED** at a regular meeting of the Board of Supervisors of the County of Marin held on this 16<sup>th</sup> day of December, 2003, by the following vote:

AYES: SUPERVISORS Susan L. Adams, Harold C. Brown, Jr., Steve Kinsey,  
Cynthia L. Murray

NOES: NONE

ABSENT: SUPERVISOR Annette Rose

  
 \_\_\_\_\_  
 PRESIDENT PRO TEM  
 BOARD OF SUPERVISORS

ATTEST:  
  
 \_\_\_\_\_  
 CLERK

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This document was developed by the Marin County Disaster Council Post-Disaster Housing Working Group in response to requests by agencies within the Marin Operational Area. Comments and suggestions should be directed to:

Marin County Sheriff, Office of Emergency Services  
415-499-6584

## 1. INTRODUCTION

In a major disaster such as wildfire or earthquake, large numbers of Marin County residents will lose their homes. Many will seek temporary shelter with relatives, friends, or at emergency congregate shelters operated by local governments and/or the American Red Cross. Emergency shelters may be expected to close within three weeks after the event. Repair and permanent replacement of lost housing stock can take several years. Therefore, there is a clear need to provide temporary housing for disaster victims for anywhere from three weeks to three years after the disaster.

Marin County is especially vulnerable to a loss of housing stock as it has an almost zero vacancy rate, most of its workforce lives outside the county, most of the land is already developed or protected, and real estate prices are among the most expensive in the U.S.

The Association of Bay Area Governments (ABAG) has predicted that 1,653 housing units in Marin could be uninhabitable from an earthquake on the Northern Hayward fault – the most likely Bay Area earthquake. Wildfire also poses a significant threat - the 1991 East Bay Hills Fire destroyed over 2,000 homes. The same conditions that sparked that disaster also exist in Marin. In a worst-case scenario, a large earthquake could spark a large wildfire resulting in a massive destruction of housing stock.

In 2001, a Post-Disaster Housing Working Group was formed by the Marin County Disaster Council to develop coordinated post-disaster housing strategies for the Operational Area. The Working Group consisted of 15 individuals representing community groups, county government, the Governor's Office of Emergency Services and the Federal Emergency Management Agency (FEMA). This Annex is the final product of this Working Group.

## 2. DEFINITIONS

### **Emergency Shelter**

Temporary housing for one day to three weeks. Also known as immediate shelter and congregate care shelter.

### **Short-term Temporary Housing (Tier One)**

Temporary housing for three weeks to six months. Used to provide shelter for victims whose homes can be repaired within six months.

### **Long-term Temporary Housing (Tier Two)**

Temporary housing for three weeks to three years. Used to provide shelter for victims whose homes must be replaced permanently.

### 3. ASSUMPTIONS

A major earthquake will affect the entire Bay Area region. Local communities may have to compete for state and federal recovery resources and funds.

In recent years, FEMA has reduced its capability to provide temporary housing in the form of portable trailers and mobile homes. It will be up to local government to obtain these resources.

Fewer than 20% of Marin homeowners maintain earthquake insurance due to the high cost and high deductibles. Following a major earthquake, this lack of insurance will prevent most from making timely repairs or replacement of their homes. Following the 1997 Northridge earthquake, most of the housing losses were covered by \$8 billion in insurance payments – that will not be the case in Marin. Unable to secure financing, many owners will simply abandon their properties. There exists a possibility that additional housing units could be lost through fires purposefully started by owners that don't have earthquake insurance.

Disaster victims who were living in the most vulnerable forms of housing (older, multi-unit) are least likely to have the means to obtain their own alternative housing arrangements.

Following a major disaster, victims usually work hard to remain in their communities and will resist being forced to move far away from their property, neighbors, schools, and jobs. If they cannot remain in their communities, disaster victims will often choose to leave the area permanently.

Per the Association of Bay Area Governments (ABAG), temporary sheltering can also have severe secondary impacts, as well. Both the Northridge and Kobe, Japan earthquakes demonstrated that neighborhoods can be socially decimated – with large increases in substance abuse, suicide rates, and violence.

Temporary housing models and technologies employed in recent large-scale disasters may not work in Marin County. The small, high-density modular housing units used following the 1995 Kobe earthquake are too slow to construct, have inadequate storage, parking, and privacy for Marin County residents. The large "tent cities" constructed following the 1998 earthquake in Turkey present many of the same issues with the additional cultural challenge of communal living. These large developments also assume that developable land is readily available.

Housing recovery can take up to seven years with mobile and single-family homes being repaired or replaced first. Multi-family dwellings, such as apartments, take much longer.

Local governments in Marin County do not, and cannot, afford to stockpile temporary housing such as trailers or mobile homes. These resources will have to be located, obtained, transported, and installed soon after the disaster.

Temporary housing may be crowded and unattractive. Siting this housing may be unpopular with local residents. Temporary housing will increase the demands for service from local government and community agencies.

Attempts to create post-disaster housing will occur in the context of major transportation, utility, and social disruptions. Special efforts must be made to address the needs of disaster victims while acknowledging the reduction in the effectiveness of most local government and community agencies. State, federal and local governments, community agencies, and neighborhood groups will be forced to cooperate at an extraordinary level.

Local building departments will face significant challenges in assessing damages, inspecting buildings, reviewing plans, interpreting codes, enacting emergency provisions, and inspecting construction. All of this will occur in addition to an increased demand for permitting and inspections of buildings undergoing permanent repair.

Local governments will use emergency powers to make housing sites available. Additional staff and resources for post-disaster housing will be a high priority during recovery efforts.

Moving aggressively to repair moderately damaged buildings in a short period of time is much cheaper than developing temporary housing. This could reduce the need for temporary housing by as much as 50%. Local governments will have to assist in protecting residents from unscrupulous contractors or scam artists.

Marin County Code support emergency actions including temporary modifications or additions to Building Code. The Marin County Board of Supervisors may enact emergency ordinances to fully support this Annex as required.

#### **4. RESPONSIBILITIES**

##### **Marin County Community Development Agency (CDA)**

Lead the Post-Disaster Housing Task Force (Task Force). Coordinate local, state, and federal individual and public assistance disaster housing programs including those managed by the Small Business Administration (SBA) and Housing and Urban Development (HUD). Estimate the need for temporary housing. Develop and recommend temporary housing sites to governing boards.

##### **CDA Building/Safety**

Serve on the Task Force. Coordinate the inspection of damaged buildings – develop detailed reports. Establish criteria for reoccupying damaged buildings. Provide technical support to building owners; coordinate access to licensed contractors; review and permit permanent repairs. Establish criteria for plan checks and permitting of temporary structures. Advise on temporary housing site selection. Review the need for temporary exemptions from building codes.

##### **Marin Housing Authority (MHA)**

Serve on the Task Force. Coordinate local, state, and federal individual and public assistance disaster housing programs. Establish criteria for determining eligibility for post-disaster housing. Develop resources to assist victims in relocating from emergency shelters to temporary housing. Coordinate for the appointment of caseworkers as necessary.

##### **Marin County Health and Human Services (HHS)**

Serve on the Task Force. Coordinate the delivery of social, mental health, public health services and emergency medical services to interim and temporary housing tenants.

##### **Marin County Public Works**

Serve on the Task Force. Advise on temporary housing site selection. Coordinate the development and delivery of services to temporary housing sites.

##### **Marin County Sheriff, Office of Emergency Services (OES)**

Serve on the Task Force as available. Facilitate coordination with state and federal disaster relief agencies and community-based organizations. Coordinate the development and adoption of emergency proclamations and ordinances as necessary.

##### **Marin County Sheriff**

Serve on the Task Force. Advise on site selection and law enforcement/crime prevention issues. Coordinate the delivery of law enforcement and crime prevention services.

##### **Marin County Fire**

Serve on the Task Force. Advise on site selection and fire suppression/safety issues. Coordinate the delivery of fire suppression and emergency medical services.

##### **Marin County Counsel**

Advise on site selection and legal issues including eminent domain and the State Redevelopment Law. Expedite review of loans and contracts.

##### **Marin County Parks**

Advise on site selection.

##### **Marin County Office of Education**

Advise on site selection.

**Marin County Economic Commission**

Advise on site selection involving property of private companies and represent the needs of employers.

**Marin County Auditor**

Serve on Task Force. Review financial budget and track expenditures. Coordinate with state and federal disaster relief programs.

**Marin County Community Relations Manager**

Serve on Task Force. Conduct outreach to media, victims, and general public.

**Incorporated Cities and Towns**

Serve on the Task Force as necessary. Internal departments have the same responsibilities as the corresponding County departments listed above.

**American Red Cross (ARC)**

Serve on the Task Force. Assist in the transition from emergency shelters to interim and temporary housing. Assist in coordinating the establishment and use of a Rental Housing Replacement Revolving Fund.

**Marin Operational Area Recovery Committee**

Develop and coordinate overall recovery effort. Define the mission and direct the efforts of the Task Force as necessary.



## 5. CONCEPT OF OPERATIONS

In the event of a major disaster, the Marin Operational Area will form a Recovery Committee to direct the long-term recovery efforts in accordance with the Marin Operational Area Emergency Operations Plan. A Post-Disaster Housing Task Force will be formed to work in support of the Recovery Committee on all housing issues. The Post-Disaster Housing Task Force will coordinate implementation of this Annex.

The Post-Disaster Housing Task force will move aggressively to determine the need for Tier One (short-term) and Tier Two (long-term) temporary housing. The Task Force will also identify and obtain needed resources and establish decentralized housing sites in the affected communities. Special consideration will be given to victims with special needs. An aggressive two-way public information outreach program will keep victims informed of progress and make local agencies aware of their needs. Attempts will be made to place temporary housing along existing transit routes and hubs.

If needed, a Post-Disaster Housing Authority may be established to serve as the legal agent for developing and managing housing resources.

### Post-Event Priorities

1. Accelerate repairs to moderately damaged buildings (i.e. Yellow tag).
2. Develop interim housing (Tier One) solutions (up to 6 months).
3. Develop long-term housing (Tier Two) solutions (up to 3 years).
4. Expedite the repair and replacement of significantly damaged or destroyed buildings.

## 6. ACTION ITEMS: POST-DISASTER HOUSING TASK FORCE

### Step One: Determine the Need

- Establish the Post-Disaster Housing Task Force:
  - Assign staff
  - Identify roles and responsibilities
- Conduct damage assessment inspections and evaluate the impact on total housing stock
- Estimate the number of victims that may need assistance
- Establish Local Assistance Centers as needed:
  - identify and register victims
  - expedite permitting and repairs for moderately damaged housing
  - facilitate registration with state and federal assistance programs
- Establish system for tracking victim status and contact information
- Identify scope of post-disaster housing services to be provided:
  - housing, furnishings, utilities, transportation, moving, pet needs, recreation, etc.
- Establish criteria for selecting and prioritizing assistance to victims:
  - Income
  - Length of time as a Marin resident
  - Special needs
  - Special circumstances
  - School enrollment continuity
  - Other losses

### Step Two: Identify and Obtain Needed Resources

- Establish Post-Disaster Housing Authority as legal agent for developing and providing housing as needed
- Coordinate efforts with community-based organizations
- Review relevant current legal authorities
- Establish County funding mechanisms and procedures
- Apply for state and federal assistance
- Contact the American Red Cross to review the potential for establishing a Rental Housing Replacement Revolving Fund as was done following the 1989 Loma Prieta Earthquake.
- Review availability and suitability of temporary housing technology

### Step Three: Select Temporary Housing Sites and Housing Technology

- Review suggested site selection criteria
- Review list of potential sites
- Coordinate with property owners and assess availability
- Coordinate with local communities
- Consider conversion of available commercial properties
- Enter into agreements with property owners

**Step Four: Coordinate the Delivery of Services**

- ❑ Assist in providing access to licensed contractors. Ask the Marin Builders Association to serve as a clearinghouse for screening contractors, issuing temporary contractor ID cards, and assisting homeowners with locating appropriate vendors.
- ❑ Support private companies in obtaining, transporting, and storing construction materials to speed repairs and reconstruction. Consider use of public spaces such as parking lots or school grounds to stage and/or store materials.
- ❑ Establish project management system:
  - Contracting
  - Permitting
  - Access
  - Utilities
  - Auditing
- ❑ Consider exemptions to standard building practices (install above-ground utilities, etc.)
- ❑ Consider off-site temporary and long-term storage of personal goods
- ❑ Coordinate for delivery of services to sites (waste disposal, maintenance, etc.)

**Step Five: Transition from Emergency Shelter to Temporary Housing (Tiers I and II)**

- ❑ Develop and execute legal agreements
- ❑ Review potential funding sources for victims on a case-by-case basis
- ❑ Assign victims to Tier I and II housing as warranted
- ❑ Assist victims in relocating to new housing (packing, shipping, unpacking)
- ❑ Establish and support neighborhood networks in the new housing areas
- ❑ Facilitate the assignment of case workers or ombudsmen as needed
- ❑ Close emergency shelters

**Step Six: Manage Temporary Housing**

- ❑ Coordinate the delivery of public safety, health, mental health, and social services by government and community-based organizations
- ❑ Ensure property management services are considered
- ❑ Facilitate access to services that will assist victims in identifying permanent housing options
- ❑ Close down Tier One housing

**Step Seven: Transition from Temporary to Permanent Housing**

- ❑ Track progress of moving to permanent housing on case-by-case basis
- ❑ Consolidate housing stock and close low-density sites
- ❑ Close down Tier Two housing
- ❑ Supervise scheduled demolition/recycling and/or re-use of temporary housing

## 7. LONG-TERM TEMPORARY HOUSING SITE SELECTION

Selection of potential sites for temporary housing must carefully balance the needs of the victims with the ability of local communities to support them. Location and access will have the most profound effect on the success of the effort. The following criteria are designed to guide the selection process. A list and map of pre-screened sites is attached.

### Objective Evaluation Measures

<b>Physical Characteristics</b>	
Size	Useable area of one acre or greater
Slope	Relatively flat – an improved slope no greater than 10%.
Drainage	Sufficient drainage on site and downstream capacity
Hazards	Threats posed by wildfire, flood, liquefaction, dam failure, hazardous materials, etc.

<b>Utilities</b>	
Water	Feeder line capacity
Sewer	Trunk line capacity
Electrical	Peak load capacity
Telephone	Voice and data capacity
Physical access	Routes for pipes and overhead lines (rights of way, etc.)

<b>Transportation</b>	
Roads	Within 5 miles of major roadway; more than one entry/exit route; width/slope/turn radii as per County Building Code
Transit	Direct access to existing system or access sufficient for new system

### Subjective Evaluation Measures

Community relations	Impact on local community
Social disruption	Cultural issues; access to churches, community centers, etc.
Proximity to the original homes	Will victims be able to retain a sense of ownership for their property?
Ability to provide support services	Law, fire, EMS, health, mental health, social, recreation, trash, etc.
Commercial Services	Access to local stores, restaurants, etc.
Schools	Impact on local schools
Traffic congestion	Impact on local and regional traffic patterns
Environmental impacts	Impact on local environment
Legal authority	Use open space lands, schools, and other public lands, if possible
Local space plan	Conformity with goals and zoning identified in local or Countywide General Plans

## 9. HOUSING TECHNOLOGY

Selection of the type of temporary housing technology must be based on the population to be housed, site characteristics, and availability. Additional attention should be given to considerations for special needs and older adults. For example, selected segments of post-disaster housing should allow for easy access and full ADA compliance. Housing systems should flex to allow for one to six or more residents depending on the size of the family.

Housing sites should reflect community priorities as well as public safety concerns including community centers, gathering places, outdoor lighting, and landscaping.

Potential housing technologies include:

- Mobile (trailer) homes
- Prefabricated kits
- Recreational vehicles
- Commercial conversion
- Permanent construction (with other end uses in mind)

## 10. AUTHORITIES

Marin County Code

- Chapter 2.99, Emergency Organization and Functions
- Chapter 7.52, Human Habitation of Housecars, Campers and Trailers
- Chapter 19.04, Building Regulations
- Chapter 16.6, Uniform Fire Code
- Chapter 15.42, Trailer Parking
- Title 15, Traffic
- Title 18, Sewers
- Title 22, Zoning
- Title 23, Natural Resources
- Title 24, Development Standards

## 11. REFERENCES

Post-Earthquake Housing Recovery: Issues for Local Governments and the Community. California Governor's Office of Emergency Services, May 1998.

Building Community Partnerships in Disaster Recovery: The Rental Housing Replacement Revolving Fund Final Report. American Red Cross, April 1998.

Post-Earthquake Housing Recovery Design Charrettes (Tenderloin and San Antonio/Fruitvale Neighborhoods). California Governor's Office of Emergency Services, November 1996 and February 1997.

Planning for Post-Disaster Recovery and Reconstruction. American Planning Association, December 1998.

Disaster Hits Home: New Policy for Urban Housing Recovery. Comerio, Mary C. University of California Press, 1998.

**Attachment A: FEMA Temporary Housing Assistance**

The Temporary Housing Assistance program has five components: Mortgage and Rental Assistance, Minimal Home Repair, Transient Accommodations, Rental Assistance, and Manufactured Housing. Temporary Housing Assistance is funded 100-percent by FEMA.

- **Mortgage and Rental Assistance**

FEMA's Mortgage and Rental Assistance (MRA) program is designed to cover rent or mortgage payments for victims who suffer financial hardship as a result of a major disaster. Victims who are unable to pay their rent or mortgage and have received written notice of eviction or foreclosure may be eligible for this program, which addresses economic injury rather than physical injury.

- **Minimal Home Repair**

The Minimal Home Repair program is designed to restore a home to a habitable condition by making limited home repairs until more extensive repairs can be made.

- **Transient Accommodations**

Reimbursement of short-term (up to 30 days) lodging expenses of victims.

- **Rental Assistance**

Rental Assistance is designed to meet temporary housing needs of homeowners and renters by providing a grant based on fair market rents in the disaster-declared area. Eligibility criteria may include permitting recipients to use the funds for any type of housing-related expenses, such as the purchase of cleaning items.

- **Manufactured Housing**

The Manufactured Housing program is not often used and may no longer be supported.

**Attachment B: Potential Post-Disaster Housing Sites**

The attached maps indicate properties and portions of properties that may support the development of long-term post-disaster housing. These maps are intended to provide the Post-Disaster Housing Working Group with a base starting point and do not indicate any firm plan to develop any of the identified sites.

Properties were identified as those meeting the criteria set forth in Section 7 of this annex. Please note that two criteria, access to utilities and physical characteristics, eliminated a significant number of potential sites. If these criteria were adjusted, additional sites could be located.