Mitigation

One of the most effective means of protection is to take steps to make your home and your household safe from the potential effects of disaster like floods, tornadoes, hurricanes and earthquakes. This is called mitigation. Ideally, mitigation measures are implemented before disaster strikes since they can help protect your household as well as your property. However, even after a disaster strikes, actions can be taken to avoid or reduce the impact of the next disaster.

1. If your home was damaged during the disaster, consider implementing mitigation measures while you repair your home.

2. Be sure that all upgrade construction projects comply with local building codes that pertain to seismic, flood, fire and wind hazards. Make sure your contractors follow the codes, including periodic building inspections of the construction.

3. If you live in a flood-prone area, consider purchasing flood insurance to reduce your risk to floods. Buying flood insurance to cover the value of a building and its contents will not only provide greater peace of mind, but will also speed recovery if a flood occurs. You can call #1-888-FLOOD29 to learn more about flood insurance.

   Also consider options for reducing your future flood losses (see *Homeowner's Guide to Retrofitting: Six Ways to Protect Your House From Flooding*, FEMA Publication # 312). The appropriate flood mitigation measure will depend upon the degree of flood risk to which your home is subject.

For moderate degrees of flooding, incorporating floodproofing techniques to meet National Flood Insurance Program criteria may be the most practical approach to flood damage reduction. These techniques include taking the following steps to protect your utilities from flood damages.

- Relocating electric, telephone and cable lines to the upper level of your home.
- Putting heating, ventilation and air conditioning units in the upper story or the attic.
- Anchoring or bolting oil tanks to prevent flotation.

If the homes within your community have a history of severe, repetitive, flooding, it may be necessary to consider more substantial measures. Consider the following measures.

- Elevate the structure to or above the Base Flood Elevation.
- Relocate the structure to a new site located outside of the 100-year floodplain, outside of any regulatory erosion zones, and in conformance with any other applicable state or local land use regulations.

In areas prone to severe flooding, it may be appropriate to work directly with your local emergency management official to develop a community-based approach. Additionally, your local representative will be able to identify potential federal, state, and/or local funding sources for the implementation of elevation, acquisition or relocation activities. For example, FEMA offers three state-administered grant programs to help States and local governments significantly reduce or permanently eliminate future flood

losses: the Hazard Mitigation Grant Program, Flood Mitigation Assistance Program and Pre-Disaster Mitigation Program. Individuals may not apply directly to the state or FEMA, but local governments or private non-profit organizations may apply on behalf of local citizens.

4. If you live in an area prone to high winds, make sure your roof is firmly secured to the main frame of the residence.

   Consider building a wind "Safe Room or Shelter" in your home to protect your household (see the "Tornadoes" section in the "Thunderstorms" chapter). There are several additional steps you can take to reduce wind damages and losses, including the following:

   - Secure light fixtures and other items that could fall or shake loose in such events.
   - Move heavy or breakable objects to low shelves.
   - Anchor water heaters and bolt them to wall studs.
   - Purchase storm shutters for exterior windows and doors to protect your home against high winds.

5. If you live in an area likely to have an earthquake, consider using straps or other restraints to secure cabinets, bookshelves, large appliances, (especially water heater and furnace), and light fixtures to prevent damage and injury.

6. Determine ways to prevent other types of hazards in your home, such as installing a fire sprinkler system.

7. Obtain information specific to your area and home. Ask local emergency management, fire and police departments, zoning and building offices, the American Red Cross, hardware dealers, home inspectors, structural engineers and architects.

8. Ask your local government, a hardware dealer or a private home inspector for technical advice on these and other mitigation measures.

9. Check the list of available publications from FEMA mentioned in this section and at the end of this guide.