

# appendix d worksheet job aids

## Worksheet Job Aid #1: Alternative Mitigation Actions by Hazard

You can use this job aid when filling out Worksheet #1. This job aid shows you at a quick glance the type of actions that can address the selected seven hazards. A description of each action is included in the glossary in Appendix A.

Alternative Mitigation Actions	Prevention																
	Building codes	Coastal zone management regulations	Density controls	Design review standards	Easements	Environmental review standards	Floodplain development regulations	Floodplain zoning	Forest fire fuel reduction	Hillside development regulations	Open space preservation	Performance standards	Shoreline setback regulations	Special use permits	Stormwater management regulations	Subdivision and development regulations	Transfer of development rights
Floods	■	■	■	■	■	■	■	■			■	■	■	■	■	■	■
Earthquakes	■		■	■	■	■				■	■	■		■		■	■
Tsunamis	■	■	■	■		■					■	■	■	■		■	■
Tornadoes	■			■		■						■				■	
Coastal Storms	■	■	■	■	■	■	■	■			■	■	■	■		■	■
Landslides	■		■	■	■	■			■	■	■	■	■	■		■	■
Wildfires	■		■	■	■	■			■	■	■	■		■		■	■



Alternative Mitigation Actions	Property Protection					Public Education & Awareness		
	Acquisition of hazard-prone structures	Construction of barriers around structures	Elevation of structures	Relocation out of hazard areas	Structural retrofits (e.g., reinforcement, flood-proofing, storm shutters, bracing, etc.)	Hazard information centers	Public education and outreach programs	Real estate disclosure
Floods	■	■	■	■	■	■	■	■
Earthquakes	■			■	■	■	■	■
Tsunamis	■	■	■	■	■	■	■	■
Tornadoes					■	■	■	■
Coastal Storms	■	■	■	■	■	■	■	■
Landslides	■			■		■	■	■
Wildfires	■			■		■	■	■

Alternative Mitigation Actions	Natural Resource Protection							
	Best Management Practices (BMPs)	Dune and beach restoration	Forest and vegetation management	Sediment and erosion control regulations	Stream corridor restoration	Stream dumping regulations	Urban forestry and landscape management	Wetlands development regulations
Floods	■		■	■	■	■	■	■
Earthquakes	■							
Tsunamis		■		■				
Tornadoes								
Coastal Storms	■	■		■				■
Landslides	■		■	■	■		■	■
Wildfires	■		■				■	■



Alternative Mitigation Actions	Emergency Services						Structural Projects				
	Critical facilities protection	Emergency response services	Hazard threat recognition	Hazard warning systems (community sirens, NOAA weather radio)	Health and safety maintenance	Post-disaster mitigation	Channel maintenance	Dams/reservoirs	Levees and floodwalls	Safe room/shelter	Seawalls/bulkheads
Floods	■	■	■	■	■	■	■	■	■		
Earthquakes	■	■	■	■	■	■					
Tsunamis	■	■	■	■	■	■			■		■
Tornadoes	■	■	■	■	■	■				■	
Coastal Storms	■	■	■	■	■	■	■		■	■	■
Landslides	■	■	■	■	■	■					
Wildfires	■	■	■	■	■	■					



## **Worksheet Job Aid #2: Local Hazard Mitigation Capabilities**

This job aid will assist the planning team in identifying the various capabilities and capacities in your jurisdiction when completing Worksheet #3. Many of the terms below are defined in Appendix A.

Legal authority and administrative, technical, and fiscal capabilities and capacities in states and local jurisdictions vary greatly throughout the country. You should first use the results of your evaluation of state capabilities to identify any financial or technical assistance the state may be able to provide to local jurisdictions for mitigation purposes. Some states have tasked regional planning agencies with supporting local hazard mitigation planning initiatives. Discuss state and local capabilities with your State Hazard Mitigation Officer (SHMO) to identify outside resources that may be able to assist in plan implementation.

### **Section 1: Legal and Regulatory Capability**

The following section encourages the planning team to think about the legal authorities available to your community and/or enabling legislation at the state level affecting all types of planning and land management tools that can support local hazard mitigation planning efforts in your community.

The following planning and land management tools are typically used by states and local and tribal jurisdictions to implement hazard mitigation activities. Which of the following does your jurisdiction have? If the jurisdiction does not have this capability or authority, does another entity/jurisdiction have this authority at a higher level of government (county, parish, or regional political entity), or does the state prohibit the local jurisdictions from having this authority? You should include this information in the second column on Worksheet #3.



Regulatory Tools (ordinances, codes, plans)	Local Authority (Y/N)	Does State Prohibit? (Y/N)	Higher Level Jurisdiction Authority (Y/N)	Comments
a. Building code				
b. Zoning ordinance				
c. Subdivision ordinance or regulations				
d. Special purpose ordinances (floodplain management, stormwater management, hillside or steep slope ordinances, wildfire ordinances, hazard setback requirements)				
e. Growth management ordinances (also called "smart growth" or anti-sprawl programs)				
f. Site plan review requirements				
g. General or comprehensive plan				
h. A capital improvements plan				
i. An economic development plan				
j. An emergency response plan				
k. A post-disaster recovery plan				
l. A post-disaster recovery ordinance				
m. Real estate disclosure requirements				
n. Other				

## Section 2: Administrative and Technical Capacity

The following section encourages the planning team to inventory existing personnel and technical resources that can be used for mitigation planning and implementation of specific mitigation actions. Think about the types of personnel employed by your jurisdiction and the public and private sector resources that may be accessed to implement hazard mitigation activities in your community.

For smaller jurisdictions with limited capacities, no local staff resources may be available for many of the categories noted below. If so, the planning team should identify public resources at the next higher level of government that may be able to provide technical assistance to the community. For example, a small town may be able to turn to county planners or engineers to support its mitigation planning efforts or a regional planning agency may be able to provide assistance. For some hazard mitigation actions, consider federal agencies that provide technical assistance, such as the U.S. Department of Agriculture (USDA) Cooperative Extension Service, which has offices in most counties. The planning team in rural communities must be creative in identifying outside resources to augment limited local capabilities. For larger or more urban jurisdictions, this inventory task may involve targeting specific staff in various departments that have the expertise and may be used to support hazard mitigation initiatives.

You will need this information when completing **Worksheet #4: Evaluate Alternative Mitigation Actions** and when preparing your mitigation strategy in Step 3.



Identify the personnel resources responsible for activities related to hazard mitigation/loss prevention within your jurisdiction. Does your jurisdiction have:

Staff/Personnel Resources	✓	Department/Agency and Position
a. Planner(s) or engineer(s) with knowledge of land development and land management practices		
b. Engineer(s) or professional(s) trained in construction practices related to buildings and/or infrastructure		
c. Planners or engineer(s) with an understanding of natural and/or human-caused hazards		
d. Floodplain manager		
e. Surveyors		
f. Staff with education or expertise to assess the community's vulnerability to hazards		
g. Personnel skilled in GIS and/or HAZUS		
h. Scientists familiar with the hazards of the community		
i. Emergency manager		
j. Grant writers		



### Section 3. Fiscal Capability

Identify whether your jurisdiction has access to or is eligible to use the following financial resources for hazard mitigation. Use this information to fill in the second column on Worksheet #3 and when preparing your mitigation strategy in Step 3.

Financial Resources	Accessible or Eligible to Use (Yes/No/Don't Know)
a. Community Development Block Grants (CDBG)	
b. Capital improvements project funding	
c. Authority to levy taxes for specific purposes	
d. Fees for water, sewer, gas, or electric service	
e. Impact fees for homebuyers or developers for new developments/homes	
f. Incur debt through general obligation bonds	
g. Incur debt through special tax bonds	
h. Incur debt through private activity bonds	
i. Withhold spending in hazard-prone areas	
j. Other	

