Example Mitigation Actions by Hazard

Alternative Mitigation Actions	Dam Incidents	Floods	Epidemic/ Pandemic HazMat	Expansive Soils, Land Subsidence	Weather Extremes: (drought and extreme temps; hail, lightning, severe wind; tornado)	Earthquakes	Fire	Winter Storm
PLANS and REGULATIONS								
Building codes and enforcement		■		■	■	■	■	■
Comprehensive Watershed Tax		■						
Density controls	■	■		■			■	
Design review standards		■		■		■	■	
Easements		■		■			■	
Environmental review standards		■		■		■	■	
Floodplain development regulations	■	■						
Hazard mapping	■	■		■			■	
Fluvial Hazard Zone mapping and regulations		■		■				
Floodplain zoning	■	■						
Forest fire fuel reduction							■	
Housing/landlord codes					■			
Slide-prone area/grading/hillside development regulations				■			■	
Manufactured home guidelines/regulations		■			■	■		
Multi-Jurisdiction watershed protection	■	■						
Open burning regulations							■	
Open space preservation	■	■		■			■	
Performance standards	■	■		■	■	■	■	■
Special use permits	■	■		■			■	
Stormwater management regulations		■						
Subdivision and development regulations	■	■		■		■	■	
Surge protectors and lightning protection					■			
Tree Management					■		■	■
Transfer of development rights		■		■			■	
Utility location		■		■	■		■	■

Alternative Mitigation Actions	Dam Incidents	Floods	Epidemic/ Pandemic HazMat	Expansive Soils, Land Subsidence	Weather Extremes: (drought and extreme temps; hail, lightning, severe wind; tornado)	Earthquakes	Fire	Winter Storm
STRUCTURE AND INFRASTRUCTRE PROJECTS								
Acquisition of hazard prone structures	■	■		■			■	
Facility inspections/reporting	■	■				■		
Construction of barriers around structures	■	■						
Elevation of structures	■	■						
Relocation out of hazard areas	■	■		■			■	
Structural retrofits (e.g., reinforcement, floodproofing, bracing, etc.)		■	■	■	■	■	■	■
Channel maintenance		■		■				
Dams/reservoirs (including maintenance)	■	■						
Levees and floodwalls (including maintenance)		■						
Safe room/shelter					■	■		■
Secondary containment system								
Site reclamation/restoration/revegetation		■		■				
Snow fences					■			■
Water supply augmentation					■			
Debris Control/Debris basins		■		■				
Defensible Space							■	
Stream stabilization		■		■				
Biomass Plant							■	
Microgrids	■	■			■	■	■	■
Power line hardening/burial	■	■			■	■	■	■

Alternative Mitigation Actions	Dam Incidents	Floods	Epidemic/ Pandemic HazMat	Expansive Soils, Land Subsidence	Weather Extremes: (drought and extreme temps; hail, lightning, severe wind; tornado)	Earthquakes	Fire	Winter Storm
EDUCATION AND AWARENESS								
Flood Insurance	■	■						
Hazard information centers	■	■	■	■	■	■	■	■
Public education and outreach programs	■	■	■	■	■	■	■	■
Real estate disclosure	■	■		■	■	■	■	■
Crop Insurance					■	■		
Lightning detectors in public areas					■			
Disease contact tracing protocols and tools			■					
NATURAL SYSTEMS PROTECTION								
Best Management Practices (BMPs)		■		■	■		■	
Forest and vegetation management	■	■		■	■		■	■
Hydrological Monitoring	■	■		■	■			
Sediment and erosion control regulations	■	■		■				
Stream corridor restoration		■		■				
Stream dumping regulations		■						
Urban forestry and landscape management		■		■	■		■	■
Wetlands development regulations		■		■			■	
Aquifer recharge/recovery					■			
EMERGENCY SERVICES								
Critical facilities protection	■	■	■	■	■	■	■	■
Emergency response services	■	■	■	■	■	■	■	■
Facility employee safety training programs	■	■	■	■	■	■	■	■
Hazard threat recognition	■	■	■	■	■	■	■	■
Hazard warning systems (community sirens, NOAA weather radio)	■	■	■	■	■	■	■	■
Health and safety maintenance	■	■	■	■	■	■	■	■
Post-disaster mitigation	■	■		■	■	■	■	■
Evacuation planning	■	■	■	■			■	

Mitigation Action Selection and Prioritization Criteria

- Does the proposed action protect lives?
- Does the proposed action address hazards or areas with the highest risk?
- Does the proposed action protect critical facilities, infrastructure, or community assets?
- Does the proposed action meet multiple objectives (multi-objective management)?
- Is there a strong advocate for the action or project that will support the action's implementation?
- Does the project address equity or protect vulnerable populations?

STAPLE/E

Developed by FEMA, this method of applying evaluation criteria enables the planning team to consider in a systematic way the social, technical, administrative, political, legal, economic, and environmental opportunities and constraints of implementing a particular mitigation action. For each action, the HMPC should ask, and consider the answers to, the following questions:

Social - Does the measure treat people fairly (different groups, different generations)? Does it consider social equity, disadvantaged communities, or vulnerable populations?

Technical - Will it work? (Does it solve the problem? Is it feasible?)

Administrative - Is there capacity to implement and manage project?

Political - Who are the stakeholders? Did they get to participate? Is there public support? Is political leadership willing to support it?

Legal - Does your organization have the authority to implement? Is it legal? Are there liability implications?

Economic - Is it cost-beneficial? Is there funding? Does it contribute to the local economy or economic development? Does it reduce direct property losses or indirect economic losses?

Environmental - Does it comply with environmental regulations or have adverse environmental impacts?