

INTERIM DELIVERABLE: RANGE OF ALTERNATIVE MITIGATION ACTIONS CONSIDERED

The following table represents a full range of types of mitigation actions to address each of the hazards identified in this plan. At a working session of the Planning Group on June 6, 2006, Planning Group members will be asked to consider this range of actions and to identify a draft mitigation strategy for their jurisdiction. Planning Group members will be lead through this process in a workshop format by the NCOEM consultants at URS, submitting a form at the completion of the working session representing their jurisdictions implementation strategy for inclusion in the draft plan. Planning Group members will be asked to conduct this evaluation while keeping in mind information presented to them regarding the hazard identification, hazard profile, asset identification and characterization, loss estimation, land uses and development trends, and capabilities.

Things to keep in mind:

- When the Plan is approved, to apply for many types of Federal funding for hazard mitigation funding, the project must be identified in the plan. Many mitigation projects may be expensive, and your jurisdiction may not be sure if you will have the money to implement the project. You may wish to seek funding from higher levels of government to implement the project, and only implement the project when and if funding is received. For actions that your jurisdictions would like to pursue but may not have the funding for at this time, your action item could be “*Seek funding for...[project]...and implement when funding is received.*”
- To be a ‘participating jurisdiction’, FEMA must see at least one action item for your jurisdiction.
- Each Planning Group member was asked to initiate a public outreach effort as part of their participation in this plan. Consider feedback you have received from the public while you are considering action items for the mitigation strategy.
- To meet grant deadlines, NCOEM must submit a DRAFT PLAN to NYSEMO for their review and submittal to FEMA, during the month of June 2006. Feedback not received by June 6 will not be incorporated in the Draft due to time constraints.

Potential Mitigation Goals and Actions

Goals		Actions	
Number	Description	Number	Description
1	Promote disaster-resistant development.	1.A	Join the National Flood Insurance Program (for non-participating communities).
		1.B	Ensure that local comprehensive plans incorporate natural and human induced disaster mitigation techniques by requiring a courtesy- review of draft plans by the County Emergency Management Agency.
		1.C	Explore the need for hazard zoning and high-risk hazard land use ordinances.
		1.D	Organize an annual event / fair for homeowners, builders and county and local jurisdictions that includes sale of NOAA weather radios, dissemination of information brochures about disasters and building retrofits, demonstration of “defensible-space” concept and fire resistant construction materials (for roofs/exterior finishes and inflammable coverings for openings like chimneys and attics) etc.
		1.E	Develop a stormwater management plan that includes subdivision regulations to control run-off; both for flood reduction and to minimize saturated soils on steep slopes that can cause landslides.
2	Build and support local capacity to enable the public to prepare for, respond to, and recover from disasters.	2.A	Expand and disseminate GIS and other hazard information on the internet.
		2.B	Create a mitigation outreach program that helps residents prepare for disasters.
		2.C	Develop a plan and seek funding for backup electric and telecommunications systems in local government-owned critical facilities.
		2.D	Support and fund Community Emergency Response Team (CERT) programs that also include a mitigation component.
		2.E	Create a virtual and physical library that contains all technical studies, particularly natural resources.
		2.F	Expand GIS to collect and develop more sophisticated hazard mapping. Use information to update plan. Ensure information will be available to the public and to relevant communities and agencies.
		2.G	Provide training for inspection and enforcement of adopted codes and ordinances.
3	Reduce the possibility of damage and losses due to drought.	3.A	Encourage citizens to implement water conservation measures by distributing water saving kits which include replacement shower heads, flow restrictors, and educational pamphlets which describe water saving techniques. Also encourage conservation by offering rebates for ultra-low-flow toilets.
		3.B	Modify rate structure to influence consumer water use including: increasing rates during summer months and imposing excess use charges during times of water shortage.
		3.C	Reduce water use for landscaping by imposing mandatory water-use restrictions during times of water shortage. Also, develop a demonstration garden to exhibit water conservation techniques.

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Goals		Actions	
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		3.D	Publish and distribute pamphlets on water conservation techniques and drought management strategies.
		3.E	Develop and adopt an emergency water allocation strategy to be implemented during severe drought.
		3.F	Implement water metering and leak detection programs followed by water main repair/replacement to reduce losses.
4	Reduce the possibility of damage and losses due to flooding caused by floods and hurricanes.	4.A	Join the National Flood Insurance Program. As a participant, floodplains within the participating community will be identified and mapped. In return, the participating community will become eligible for flood insurance as long as the local governing body adopts and enforces a floodplain ordinance.
		4.B	Limit uses in floodways to those tolerant of occasional flooding, including but not limited to agriculture, outdoor recreation, and natural resource areas.
		4.C	Develop a Countywide gauging and warning system for flash and riverine flooding.
		4.D	Continue to implement best management practices for floodplain areas.
		4.E	Identify and document repetitively flooded properties. Explore mitigation opportunities for repetitively flooded properties, and if necessary, carry out acquisition, relocation, elevation, and flood-proofing measures to protect these properties.
		4.F	Participate in the New York State Routine Stream Maintenance Program (for currently non-participating communities).
		4.G	Develop specific mitigation solutions for flood-prone roadways and intersections under the leadership of NYDOT. Develop a work plan for when sites will be surveyed and what role can the local government play in selection and implementation of mitigation activities (e.g. any monetary or contextual support through the local capital improvement plan).
5	Reduce the possibility of damage and losses due to earthquakes.	5.A	Retrofit old/dilapidated critical facilities.
		5.B	Public awareness through video/brochures about simple steps homeowners can take to mitigate damage.
6	Reduce the possibility of damage and losses due to landslides.	6.A	Create comprehensive geological mapping to areas prone to landslides and rockslides.
		6.B	Identify high landslide hazard areas and limit future development.
		6.C	Develop a public outreach program that addresses the economic impacts of landslides on personal property.

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		6.D	Develop a vegetation management plan. Proper vegetation can supply slope-stabilizing root strength, and facilitate in intercepting precipitation. Establishing and maintaining appropriate vegetation of areas above the bluff slope may be the single most important and cost-effective mitigation measure available.
7	Reduce the possibility of damage and losses due to coastal erosion	7.A	Establish an erosion setback line which is located landward of the first stable natural vegetation at a specified distance based on long-term rate of erosion.
		7.B	Implement V Zone construction requirements for new development located in Coastal A Zones (for communities not currently implementing these requirements).
		7.C	Install revetments on shore to protect from wave action and reduce shoreline erosion. Revetments are created by placing hardened materials on the existing shore. This structural mitigation technique may be constructed out of many materials including boulders and wire mesh baskets filled with rock. They require perpetual maintenance.
8	Reduce the possibility of damage and losses due to winter storms.	8.A	Promote (or purchase, for critical facilities) NOAA weather radios.
		8.B	Educate residents about driving in winter storms and handling winter-related health effects
		8.C	Ice and windstorm-resistant trees and landscaping practices to reduce tree-related hazards
		8.D	Bury utility lines to avoid power outage due to winter storms (if risk is very high then only this action might be cost-effective)
9	Reduce the possibility of damage and losses due to tornadoes and high winds caused by windstorms and hurricane winds.	9.A	Adopt an ordinance to require safe rooms in mobile home parks
		9.B	Provide low interest loans (or other form of financial assistance) for building safe rooms.
		9.C	Provide technical assistance for building safe rooms.
		9.D	Adopt an ordinance to require hurricane clips on new construction.
		9.E	Install hurricane clips and wind shutters on existing development- particularly emergency facilities and shelters built before existing codes were adopted to offer some degree of wind protection.

Potential Mitigation Goals and Actions

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10	Reduce the possibility of damages to emergency facilities from flooding and wind damage.	10.A	Conduct a study to determine the year-built and level of protection (flood, surge, wind) for each emergency facility.
		10.B	On completion of 10.A, seek funding for mitigation projects for emergency facilities not currently designed for protection from flooding, surge, and high wind.

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