

**2010 MACOUPIN COUNTY MULTI-HAZARD  
MITIGATION PLAN: MITIGATION STRATEGIES**

**Table 5-5: Mitigation Strategies**

	<b>Mitigation Item</b>	<b>Goals and Objectives</b>	<b>Hazards Addressed</b>	<b>Jurisdictions Covered</b>	<b>Priority</b>	<b>Comments</b>
1	Purchase and install new warning sirens within the county	Goal: Improve hazard communication with the public  Objective: Evaluate and strengthen the communication and transportation abilities of emergency services throughout the county.	Tornado, Thunderstorm	Burden, Carlinville, Girard, Staunton	Complete	A number of communities in the county are well equipped with sirens.
2	Implement Nixle for mass media release via e-mail, telephone and text messages	Goal: Improve hazard communication with the public  Objective: Evaluate and strengthen the communication and transportation abilities of emergency services throughout the county.	Tornado, Flood, Earthquake, Thunderstorm, Winter Storm, Hazmat, Subsidence, Fire, Drought	Carlinville	Complete	Carlinville has implemented and advertised Nixle within the community.
3	Conduct a commodity flow study	Goal: Create new or revise existing plans/maps for the community  Objective: Conduct new studies/research to profile hazards and follow up with mitigation strategies.	Hazmat	Macoupin County	Complete	The County recently completed a commodity flow study.
4	Establish an active LEPC	Goal: Develop long-term strategies to educate the community residents on the hazards affecting their county  Objective: Improve education and training of emergency personnel and public officials.	Tornado, Flood, Earthquake, Thunderstorm, Winter Storm, Hazmat, Fire, Drought, Subsidence	Macoupin County	Complete	Macoupin County has an active LEPC.
5	Distribute weather radios to critical facilities	Goal: Improve hazard communication with the public  Objective: Equip public facilities and communities to guard against damage caused by secondary effects of hazards.	Tornado, Thunderstorm, Flood, Earthquake, Drought, Winter Storm	Macoupin County, Benld, Bunker Hill, Carlinville, Gillespie, Girard, Mount Olive, Staunton, Virden, Nilwood, Shipman, Brighton, Chesterfield, Dorchester, Eagarville, East Gillespie, Hettick, Medora, Modesto, Mount Clare, Palmyra, Royal Lakes, Sawyerville, Scottville, Standard City, White City, Wilsonville	Complete	Critical facilities throughout the county are equipped with weather radios.
6	Conduct a drainage study and make necessary improvements	Goal: Lessen the impacts of hazards to new and existing infrastructure  Objective: Minimize the amount of infrastructure exposed to hazards.	Flood	Staunton	Complete	Staunton has successfully completed its study and has begun to mitigate the flooding issues.
7	Create a database for identification of special needs population and institute a plan for rescue and recovery	Goal: Develop long-term strategies to educate the community residents on the hazards affecting their county  Objective: Improve education and training of emergency personnel and public officials.	Tornado, Flood, Earthquake, Thunderstorm, Winter Storm, Drought, Hazmat, Subsidence	Macoupin County	In Progress	The development of the database is in progress.

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8	Participate in MABUS	<p>Goal: Develop long-term strategies to educate the community residents on the hazards affecting their county</p> <p>Objective: Improve education and training of emergency personnel and public officials</p>	Hazmat	Bunker Hill, Brighton, Staunton, Viren	Ongoing	Some of the communities have an ongoing relationship with MABUS.
9	Trim trees to minimize the amount/duration of power outages	<p>Goal: Lessen the impacts of hazards to new and existing infrastructure</p> <p>Objective: Minimize the amount of infrastructure exposed to hazards.</p>	Winter Storm	Macoupin County	Ongoing	This is an ongoing practice in Macoupin County.
10	Enforce codes requiring mobile homes to have tie-downs	<p>Goal: Create new or revise existing plans for the community</p> <p>Objective: Review and update existing community plans and ordinances to support hazard mitigation.</p>	Tornado, Thunderstorm	Macoupin County	Ongoing	The county has established and enforces this ordinance.
11	Conduct a new flood study (DFIRM)	<p>Goal: Create new or revise existing plans/maps for the community</p> <p>Objective: Support compliance with the NFIP for each jurisdiction.</p>	Flood	Macoupin County	High	The County Floodplain Manager will oversee this project. FEMA will be approached for funding and assistance with the study. If funding is available, implementation will begin within one year.
12	Improve emergency radio coverage throughout the county	<p>Goal: Improve communications amongst first responders</p> <p>Objective: Evaluate and strengthen the communication and transportation abilities of emergency services throughout the county.</p>	Tornado, Flood, Earthquake, Thunderstorm, Winter Storm, Drought, Hazmat, Fire, Subsidence	Macoupin County, Benld, Bunker Hill, Carlinville, Gillespie, Girard, Mount Olive, Staunton, Virden, Nilwood, Shipman, Brighton, Chesterfield, Dorchester, Eagarville, East Gillespie, Hettick, Medora, Modesto, Mount Clare, Palmyra, Royal Lakes, Sawyerville, Scottville, Standard City, White City, Wilsonville	High	The County EMA Coordinator oversees the implementation of the project. Funding for new equipment/towers will be sought from local, state, and federal resources. Implementation, if funding is available, is forecasted to begin within one year.
13	Implement new plans for public education including distribution of first aid kits and weather radios and pamphlets that address the importance of retrofitting infrastructure	<p>Goal: Develop long-term strategies to educate the community residents on the hazards affecting their county</p> <p>Objective: Raise public awareness on hazard mitigation.</p>	Tornado, Flood, Earthquake, Thunderstorm, Winter Storm, Hazmat, Drought, Fire, Subsidence	Macoupin County, Benld, Bunker Hill, Carlinville, Gillespie, Girard, Mount Olive, Staunton, Virden, Nilwood, Shipman, Brighton, Chesterfield, Dorchester, Eagarville, East Gillespie, Hettick, Medora, Modesto, Mount Clare, Palmyra, Royal Lakes, Sawyerville, Scottville, Standard City, White City, Wilsonville	High	The County EMA Coordinator will work with area schools, healthcare facilities, and businesses to implement this project. Funding will be sought from local sources. Implementation, if funding is available, will begin within one year.
14	Purchase new transfer switches for all critical facilities	<p>Goal: Lessen the impacts of hazards to new and existing infrastructure</p> <p>Objective: Equip public facilities and communities to guard against damage caused by secondary effects of hazards.</p>	Tornado, Earthquake, Thunderstorm, Winter Storm	Macoupin County, Benld, Bunker Hill, Carlinville, Gillespie, Girard, Mount Olive, Staunton, Virden, Nilwood, Shipman, Brighton, Chesterfield, Dorchester, Eagarville, East Gillespie, Hettick, Medora, Modesto, Mount Clare, Palmyra, Royal Lakes, Sawyerville, Scottville, Standard City, White City, Wilsonville	High	The County EMA Coordinator will oversee the implementation of this project. Local resources will be used to determine which facilities should receive transfer switches. The pre-disaster mitigation program and community development grants are possible funding sources. If funding is available, this project is forecasted to begin within one year.

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15	Conduct a sewer upgrade to separate stormwater and sanitary sewer lines	Goal: Lessen the impacts of hazards to new and existing infrastructure  Objective: Minimize the amount of infrastructure exposed to hazards.	Flood	Carlinville, Staunton	High	Some communities in the county have CSO or plans in place but many require additional funding to complete the projects. Funding will be sought from IEPA, IEMA, and FEMA. Implementation will begin within one year if funding is available.
16	Develop a debris management plan that includes roles and responsibilities of the LEPC and other county departments	Goal: Create new or revise existing plans/maps for the community  Objective: Review and update existing, or create new, community plans and ordinances to support hazard mitigation.	Flood, Tornado, Thunderstorm, Winter Storm	Macoupin County	High	The County LPEC will work with other County planning departments to develop the debris management plan. Local resources will be used to update and maintain the plan.
17	Institute Reverse 911 or similar mass notification system	Goal: Improve the hazard awareness communication to the public  Objective: Evaluate and strengthen the communication and transportation abilities of emergency services throughout the county.	Tornado, Flood, Earthquake, Thunderstorm, Winter Storm, Drought, Hazmat, Fire, Subsidence	Macoupin County	High	The County E?A Coordinator oversees the implementation of the project. Local resources will be used to maintain the system. Funding to implement the new system will be sought from the PDM program and state and federal resources. Implementation, if funding is available, is forecasted to begin within one year.
18	Strengthen mutual aid response agreements	Goal: Improve coordination between first responders  Objective: Improve education and training of emergency personnel and public officials	Hazmat	Macoupin County	High	The County EMA Coordinator director will work with neighboring counties to establish and/or strengthen the agreements. If resources are available, implementation will begin within one year.
19	Conduct a study to evaluate the strength of the county's critical facilities infrastructure. Harden critical facilities as necessary	Goal: Create new or revise existing plans/maps for the community  Objective: Conduct new studies/research to profile hazards and follow up with mitigation strategies.	Tornado, Flood, Thunderstorm, Earthquake, Winter Storm, Fire	Macoupin County, Benld, Bunker Hill, Carlinville, Gillespie, Girard, Mount Olive, Staunton, Virden, Nilwood, Shipman, Brighton, Chesterfield, Dorchester, Eagarville, East Gillespie, Hettick, Medora, Modesto, Mount Clare, Palmyra, Royal Lakes, Sawyerville, Scottville, Standard City, White City, Wilsonville	Medium	The County Engineer will oversee this project. FEMA, IEMA, and community grants may help to fund the study, document the findings, and determine funding sources for hardening the structures. Implementation, if funding is available, will begin within three years.
20	Create maps of undermined areas in the county	Goal: Create new or revise existing plans/maps for the community  Objective: Review and update existing, or create new, community plans and ordinances to support hazard mitigation.	Subsidence	Macoupin County, Benld, Bunker Hill, Carlinville, Gillespie, Girard, Mount Olive, Staunton, Virden, Nilwood, Shipman, Brighton, Chesterfield, Dorchester, Eagarville, East Gillespie, Hettick, Medora, Modesto, Mount Clare, Palmyra, Royal Lakes, Sawyerville, Scottville, Standard City, White City, Wilsonville	Medium	The County Engineer will oversee this project. The county will seek assistance from FEMA , IEMA, and IDMR. If funding is available, implementation will begin within three years.

	Mitigation Item	Goals and Objectives	Hazards Addressed	Jurisdictions Covered	Priority	Comments
21	Conduct a study to evaluate bridge infrastructure strength	Goal: Create new or revise existing plans/maps for the community  Objective: Conduct new studies/research to profile hazards and follow up with mitigation strategies.	Tornado, Flood, Earthquake, Thunderstorm, Winter Storm	Macoupin County, Benld, Bunker Hill, Carlinville, Gillespie, Girard, Mount Olive, Staunton, Virden, Nilwood, Shipman, Brighton, Chesterfield, Dorchester, Eagarville, East Gillespie, Hettick, Medora, Modesto, Mount Clare, Palmyra, Royal Lakes, Sawyerville, Scottville, Standard City, White City, Wilsonville	Medium	The County Engineer will oversee the implementation of this project with assistance from IEMA and ILDOT. IEMA and ILDOT grants will be used to procure funds for the study, which is forecasted to begin within three years.
22	Establish shelters/warming centers/cooling centers in mobile home parks and recreational parks and within each incorporated community	Goal: Lessen the impacts of hazards to at risk populations  Objective: Improve emergency sheltering in the community.	Tornado, Flood, Earthquake, Thunderstorm, Winter Storm, Drought, Hazmat, Subsidence	Macoupin County, Benld, Bunker Hill, Carlinville, Gillespie, Girard, Mount Olive, Staunton, Virden, Nilwood, Shipman, Brighton, Chesterfield, Dorchester, Eagarville, East Gillespie, Hettick, Medora, Modesto, Mount Clare, Palmyra, Royal Lakes, Sawyerville, Scottville, Standard City, White City, Wilsonville	Medium	The County Floodplain Manager will oversee this project. A shelter study will be used to identify shelter areas. Funding has not been secured as of 2010, but the PDM program and community development grants are possible sources. Implementation will begin within three years.
23	Assess and upgrade drainage systems throughout the county	Goal: Lessen the impacts of hazards to new and existing infrastructure  Objective: Minimize the amount of infrastructure exposed to hazards.	Flood	Macoupin County, Benld, Bunker Hill, Carlinville, Gillespie, Girard, Mount Olive, Virden, Nilwood, Shipman, Brighton, Chesterfield, Dorchester, Eagarville, East Gillespie, Hettick, Medora, Modesto, Mount Clare, Palmyra, Royal Lakes, Sawyerville, Scottville, Standard City, White City, Wilsonville	Medium	The County will work with the ILDOT to implement this project. Funding as not been secured as of 2010, but ILDOT and IDNR are potential sources. Implementation, if funding is available, will begin within three years.
24	Conduct a study to determine areas throughout the county that need new sirens. Purchase and install new warning sirens within the county	Goal: Lessen the impacts of hazards to new and existing infrastructure  Objective: Evaluate and strengthen the communication and transportation abilities of emergency services throughout the county.	Tornado, Thunderstorm	Macoupin County, Benld, Bunker Hill, Gillespie, Mount Olive, Virden, Nilwood, Shipman, Brighton, Chesterfield, Dorchester, Eagarville, East Gillespie, Hettick, Medora, Modesto, Mount Clare, Palmyra, Royal Lakes, Sawyerville,	Medium	The County Floodplain Manager oversees the implementation of the project. Local resources will be used to maintain the warning systems. Additional funding for the study and implementation will be sought from the PDM program and FEMA. Implementation, if funding is available, is forecasted to begin within one year.
25	Develop or adapt guidelines or ordinances which require higher building and safety standards for new public and governmental buildings	Goal: Improve resilience of local government to disasters  Objective: Equip public facilities and communities to guard against damage caused by secondary effects of hazards.	Tornado, Flood, Earthquake, Thunderstorm, Drought, Winter Storm, Hazmat, Fire, Subsidence	Macoupin County, Benld, Bunker Hill, Carlinville, Gillespie, Girard, Mount Olive, Staunton, Virden, Nilwood, Shipman, Brighton, Chesterfield, Dorchester, Eagarville, East Gillespie, Hettick, Medora, Modesto, Mount Clare, Palmyra, Royal Lakes, Sawyerville, Scottville, Standard City, White City, Wilsonville	Low	The local planning commission will develop the guidelines working with outside engineers. Funding sources will include local, state, and federal agencies and community grant opportunities. Implementation will begin within one year.
26	Conduct a study to determine availability of 4WD vehicles	Goal: Improve first responder coordination  Objective: Evaluate and strengthen the communication and transportation abilities of emergency services throughout the county.	Winter Storm	Macoupin County, Benld, Bunker Hill, Carlinville, Gillespie, Girard, Mount Olive, Staunton, Virden, Nilwood, Shipman, Brighton, Chesterfield, Dorchester, Eagarville, East Gillespie, Hettick, Medora, Modesto, Mount Clare, Palmyra, Royal Lakes, Sawyerville, Scottville, Standard City, White City, Wilsonville	Low	The EMA Director will coordinate this project. Local resources will be used to survey the availability and create a database. Implementation will begin within five years.

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27	Re-route raile line through Carlinville	<p>Goal: Lessen the impacts of hazards to new and existing infrastructure</p> <p>Objective: Equip public facilities and communities to guard against damage caused by secondary effects of hazards.</p>	Hazmat, Fire	Carlinville	Low	Carlinville government officials and first responders will oversee this project. Local resources, e.g. rail companies, will be approached to implement this project, and funding will be sought from local, state, and federal resources and community grants. If funding and resources are available, the project will begin within five years.
28	Develop ordinances to bury new power lines in subdivisions	<p>Goal: Lessen the impacts of hazards to new and existing infrastructure</p> <p>Objective: Minimize the amount of infrastructure exposed to hazards.</p>	Tornado, Earthquake, Thunderstorm, Winter Storm	Macoupin County	Low	Although there is not a formal ordinance in place, new subdivisions typically bury power lines. The county will propose development of ordinances to require this practice for all future infrastructure. Local resources will be used to develop the ordinances.
29	Increase training and equipment for the Community Emergency Response Team (CERT)	<p>Goal: Develop long-term strategies to educate the community residents on the hazards affecting their county</p> <p>Objective: Improve education and training of emergency personnel and public officials.</p>	Tornado, Thunderstorm, Flood, Earthquake, Drought, Winter Storm, Hazmat, Subsidence, Fire	Macoupin County	Low	The County EMA and other local officials will oversee this project. Local resources and community grants will be used to implement and fund this project. If funding and resources are available, the project will begin within five years.