

Code	Mitigation Strategy	Status	Funding Source	Priority	Responsible Organization/ Agency	Strategy Proposed by
Tornados, Severe T-Storms						
T1	Continue to upgrade and maintain outdoor warning siren system. Increase/Improve outdoor warning sirens. Construct a public facility with a hardened area open to the public as a shelter location. Develop a community storm shelter open to residents during severe weather events.	Ongoing	Local	High	Jackson County EMA//IEMA// Murphysboro EMA	Murphysboro EMA
T2	There are no public storm shelters available in Murphysboro. If a new public facility is built, including a public storm shelter would assist the public in remaining safe during severe thunderstorms. Provide a community storm shelter for those who do not have appropriate shelter in their home. Public facilities should be hardened or replaced with hardened structures which can withstand severe thunderstorms. Harden public facilities to withstand severe thunderstorms.	Proposed	Local,State	High	Jackson County EMA//IEMA// Murphysboro EMA	Murphysboro EMA
T3	Improve our use of a County-wide mass notification system for all County residents. Continue to upgrade the processes we have in use currently. Develop a Community Storm Shelter program to be included in new building construction planning.	Proposed	Local	High	County EMA/ETSB-911./	Orval Rowe (Deputy Coordinator of Jackson County)
T5	Assist in alerting levee district residents of disasters/impending disasters utilizing the district's email network, the Community for a Safe Levee Facebook page, and Jackson County EMA's alert warning system. Hold a public meeting with citizens from the district to disseminate emergency protective strategies including available safe zones at the Gorham Volunteer Fire Department and Christ Lutheran church basement and a list of contact information for emergency personnel in the area including Jackson County officials and the Gorham Volunteer Fire Department first responders. Keep a copy of relevant disaster plans and hazmat plans from Jackson County EMA and other relevant offices in the township office for public knowledge.	Ongoing	Local	Medium	Jackson County EMA/ Fire Department	Degognia Levee Commission
T6	Assist in alerting levee district residents of disasters/impending disasters utilizing the district's email network, the Community for a Safe Levee Facebook page, and Jackson County EMA's alert warning system. Hold a public meeting with citizens from the district to disseminate emergency protective strategies including available safe zones at the Gorham Volunteer Fire Department and Christ Lutheran church basement and a list of contact information for emergency personnel in the area including Jackson County officials and the Gorham Volunteer Fire Department first responders. Keep a copy of relevant disaster plans and hazmat plans from Jackson County EMA and other relevant offices in the township office for public knowledge.	Ongoing	Local	Medium	Jackson County EMA/ Fire Department	Degognia Levee Commission

T7	Build residential or community safe rooms at mobile home parks, fair grounds, shopping malls or vulnerable public spaces. Make sure these areas are accessible by the public at all times. Develop a program that helps retrofit mobile homes to have appropriate foundations; tie downs for roofs as well as comply with national standards of manufacture. Local businesses and community support groups can donate time and supplies for the project.	Proposed	Local	Medium	Jackson County EMA/ Fire Department	Carbondale EMA
T8	Educate citizens about burying utility lines or trim trees near above-ground lines. Know the difference between a severe thunderstorm watch (issues when severe thunderstorms in your area) and a warning (severe thunderstorms have been sighted by radar) Carbondale Emergency operations Center can help educate citizens for future severe weather events.	Proposed	Local	Low	Jackson County EMA/ Fire Department	Carbondale EMA
T9	Re-vamp the reconstruction plans to unite parents with students after a significant weather event.	Ongoing	Local	High	Jackson County EMA/ Fire Department/ Police Department (first responders)	Trico CUSD #176
T10	Institute a build back and recovery plan for loss of properties. CCHS will apply for FEMA and other funds available for recovery and efforts to rebuild. The building would have to be back to code prior to allowing the building to be functional.	Proposed	State	High	Carbondale Community High School Staff//Jackson County EMA	CCHS
T11	Institute a plan for protection and recovery. Will provide a guideline on how to protect and respond to such event. Recovery efforts will be made and the damage would be evaluated.	Proposed	Local	Medium	Carbondale Community High School Staff//Jackson County EMA	CCHS
T12	Provide information for students regarding storm safety and practice response via drills. Staff will provide education to students regarding severe storm and tornado drills. Secure "go bags" for teachers and staff that contain emergency information and first aid kits. Each classroom is outfitted with backpacks that contain emergency information and first aid supplies.	Ongoing	local	High	Unity Point Staff/ Makanda Township Fire Department	Unity Point School
T13	Working on improving the notifications to our residents with a call service. Educating residents on the proper procedures during these events. Having storm Shelters in different locations of the village for the safety of our residents.	Ongoing	local	Medium	Fire department of De Soto/ Jackson County EMA	De Soto Police
T14	Continued education throughout our community. Improve and inform the use of an all call system for our community. Set up warming and cooling shelters during times of snow.	Ongoing	local	Medium	Fire department of De Soto/ Jackson County EMA	De Soto Police
T16	In the event of a tornado; sound the sirens and use the weather radios.	Ongoing	Local; Federal	Medium	Jackson County EMA/ Village of Dowell Fire department	(Village of Dowell)
T17	In the event of a severe thunderstorm; activate storm spotters' protocol and warn everyone to stay alert.	Ongoing	Local; Federal	Medium	Jackson County EMA/ Village of Dowell Fire department	(Village of Dowell)
T18	Retrofit existing structures to withstand high winds. Update and maintain a list of temporary shelters.	Proposed	Federal	Medium	Jackson County EMA/ Elverado School District	Elverado CUSD #196)

T19	In the event of a severe thunderstorm; Enhance emergency communication system infrastructure, warning system enhancements. Retrofit existing structures to withstand high winds.	Proposed	Federal	Medium	Jackson County EMA/ Elverado School District	Elverado CUSD #196)
T20	Prepare and distribute severe weather plans for all employees. Monitor weather conditions so employees can move to secure locations when necessary	Ongoing	local	Medium	KRCCD	KRCCD
T21	Retrofitting select infrastructure and building safe rooms to improve airport safety	Proposed	local, federal	Medium	Southern Illinois Airport Authority	SIAA
T22	Construct additional community safe rooms, anchor manufactured homes, provide jurisdiction wide siren coverage, enhance ordinances to exceed minimum construction standards for high winds, retrofit outdated structures	Proposed	l,s,f,p	high	Campbell Hill fire, Jackson County EMA, SIH	Campbell Hill
T23	Ensure building are in compliance with building codes. Ensure evacuation signs are clearly posted and evacuation process is in place.	Ongoing	s	High	SIU	SIU Chief of Police
T24	Ensure severe weather sirens are maintained and tested. Maintain alert notification system for staff, students and faculty along with response mechanism for Emergency Operations Center.	Ongoing	s	high	SIU	SIU Chief of Police
T25	Construct safe rooms in essential facilities, create and update list of emergency equipment	Ongoing	l,s,f	High	Ava	Village of Ava
T26	Make sure warning sirens are working properly and tested regularly. Ensure City has proper equipment to handle severe weather	Ongoing	l	Low	Ava	Village of Ava
T27	Update emergency operating plan, purchase defibrillator, purchase generator, conduct first responder trainings	Ongoing	L,s	High	Village of Makanda	Village of Makanda
T28	Use community Center and Baptist Church for command center and shelter	Ongoing	L	High	Village of Makanda	Village of Makanda

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Earthquakes						
EQ1	Identify and reduce earthquake hazards at home and work. These mitigation efforts should include: Securing heavy objects to walls and floors, such as shelves, bookcases, cabinets, and water heaters. Placing large, heavy, or breakable objects on lower shelves. Hanging heavy items – such as pictures and mirrors – away from areas where people sit or gather frequently. Bracing overhead light fixtures. Repairing defective electrical wiring and leaky gas connections. These are potential fire risks. Repairing any deep cracks in ceilings or foundations. Get expert advice if there are signs of structural defects. Storing flammable products and hazardous material securely on bottom shelves in cabinets that are closed with latches. Follow MSDS storage guidelines. Continue Earthquake Preparedness Education campaign. Teach people to mitigate risks at home and at work. Retrofit / harden or replace critical facilities (city hall, public works, police, fire, school) buildings to withstand a major earthquake.	Proposed	Local; State: Federal	Low	Jackson County EMA//IEMA// Murphysboro EMA	Murphysboro EMA
EQ2	Continue to educate County residents on ways to protect themselves during and after an earthquake. The future ability to build a new Regional Emergency Operations Center (SIEOC) in the County. We currently have a grant proposal moving through Senator Duckworth's office for this purpose. Our hopes are that we get approved for this grant.	Ongoing	Local	Medium	Jackson County EMA/IEMA	Orval Rowe (Deputy Coordinator of Jackson County)
EQ3	Assist in alerting levee district residents of disasters/impending disasters utilizing the district's email network, the Community for a Safe Levee Facebook page, and Jackson County EMA's alert warning system. Hold a public meeting with citizens from the district to disseminate emergency protective strategies and a list of contact information for emergency personnel in the area including Jackson County officials and the Gorham Volunteer Fire Department first responders. Keep a copy of relevant disaster plans and hazmat plans from Jackson County EMA and other relevant offices in the township office for public knowledge.	Ongoing	Local	Medium	Jackson County EMA/ Fire Department	Degognia Levee Commission
EQ4	Establish a seismic committee to provide recommendations. Recommend changes in state and local seismic safety standards and perform annual assessments of seismic safety improvements. Retrofit critical facilities to ensure they remain operational post-earthquakes (schools, governments, and corporations)	Proposed	State	High	IEMA/Jackson County EMA	Carbondale EMA
EQ5	Institute a build back and recovery plan for loss of properties. CCHS will apply for FEMA and other funds available for recovery and efforts to rebuild. The building would have to be back to code prior to allowing the building to be functional.	Proposed	State	Medium	Carbondale Community High School Staff//Jackson County EMA	CCHS
EQ6	Work with Unity Point Safety Committee to review and revise Emergency action plan. Develop Emergency action plan.	Ongoing	Local	Low	Unity Point Staff/ Makanda Township Fire Department	Unity Point School

EQ7	Educating residents on proper procedures during an event.	Ongoing	Local	Low	Fire department of De Soto/ Jackson County EMA	De Soto Police
EQ8	Make sure everything is secured properly in the event of an earthquake.	Ongoing	Local; State; federal	Low	Jackson County EMA/ Village of Dowell Fire department	(Village of Dowell)
EQ9	Develop earthquake emergency action plans. Install automatic shutoff valves.	Proposed	Local	High	Jackson County EMA/ Elverado School District	Elverado CUSD #196)
EQ10	Develop earthquake emergency action plans.	Ongoing	Local	Medium	KRCCD	KRCCD
EQ11	Design utility services to supply critical facilities first during emergency situations.	Ongoing	Local	Medium	KRCCD	KRCCD
EQ12	Modification of structures to withstand reasonable earthquake event: Certain structures at the airport lack seismic protection. We will identify those buildings and design/implement corrective measures. Non-Federal funding source from local funding.	Proposed	Local,Federal	Medium	SIAA	SIAA
EQ13	Map and assess community vulnerability to earthquakes, retrofit water supply systems, retrofit critical facilities, install automatic shutoff valves, develop and update emergency action plans	Proposed	l,s,f,p	High	Campbell Hill, Jackson County EMA, Jackson County Health Dept	Campbell Hill Board
EQ14	Promote/Ensure buildings are in compliance with building codes. Develop additional earthquake emergency action plans as needed (Appendix D-21). Exit signs and evacuation routes clearly posted.	Ongoing	s	High	SIU	SIU Chief of Police
EQ15	construct backup water mains, install automatic shutoff valves	Ongoing	l,s,f	high	Ava	Mayor of Ava
EQ16	Update emergency operating plan	ongoing	l	high	Makanda	Village of Makanda

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HazMat Release						
HM1	Provide Hazmat training for first responders in Murphysboro. When possible, involve transportation companies such as Union Pacific Railroad. Hazmat training for first responders in Murphysboro. Develop evacuation plan for critical facilities (schools) which are within close proximity to major transportation line (UP RR)	Proposed	Local	Medium	Jackson County EMA// IEMA//IEPA	Murphysboro EMA
HM2	Continue to test and exercise our capabilities while learning from our improvements through our exercises. Continue to work with our County LEPC committee to educate and prepare our County for a Hazard Material release.	Ongoing	Local	Medium	Jackson County EMA// IEMA//IEPA	Orval Rowe (Deputy Coordinator of Jackson County)
HM3	Maintain maps of railroad crossings in the levee district and alternate egress routes available in the event of a train derailment and hazardous materials event. Assist in alerting levee district residents of disasters/impending disasters utilizing the district's email network, the Community for a Safe Levee Facebook page, and Jackson County EMA's alert warning system.	Ongoing	Local	Medium	Jackson County EMA/ Fire Department	(Levee Commissioner, Degognia)
HM4	Strengthen and enforce safety procedures and policies. Require training in and compliance with all safety procedures and systems related to the manufacture, storage, transport, use, and disposal of hazardous materials. Canadian National can possibly help fund this project. Develop and maintain emergency plans/ risk management plans as required by the U.S EPA.	Ongoing	Local	Low	Jackson County EMA/ Carbondale Fire Department	(Carbondale EMA
HM5	Institute awareness, protection, and procedures to lower risks of exposure. Will provide training and guidelines through Crisis Plan book.	Proposed	Local	Medium	Carbondale Community High School Staff//Jackson County EMA	CCHS
HM6	Educating our residents on what to do and where to go in the event of a possible train derailment, and proper procedures if such events took place. Set up isolation areas within the village. Work on types of communication that would better suit our needs; such as a P-25 digital radios	Ongoing	Local	Medium	Fire department of De Soto/ Jackson County EMA	Chief of Police of De Soto
HM7	Block off dangerous area from the public and contact the local HazMat team assist.	Ongoing	Local; State; Federal	Low	Jackson County EMA/ Village of Dowell Fire department	(Village of Dowell)
HM8	Develop and update HazMat emergency plans. Equip facilities with centralized positive-pressure HVAC systems.	Proposed	Local	High	Jackson County EMA/ Elverado School District	Elverado CUSD #196)
HM9	Continually update risk management plan, continue to perform preventative maintenance on all hazardous material equipment	Ongoing	Local	Medium	KRCCD	KRCCD
HM10	Develop/update emergency action plans for HazMat release, conduct hazardous material commodity flow study, update facilities that store HazMats to current regulations, purchase emergency equipment	Proposed	l,s,f,p	Medium	Campbell Hill fire, County EMA	Campbell Hill Board

HM11	SIAA has a current plan for such releases. It should be reviewed and strengthened as necessary	Proposed	Local	High	SIAA	SIAA
HM12	Discuss and create joint plan with fire dept, acquire protective gear for first responders	Proposed	l,s,f	Low	City of Ava, Ava Fire Dept	Mayor of Ava
HM13	Promote compliance with safety codes and regulations. Develop and enforce plans that regulate the location of sites with hazardous chemicals. Develop action or contingency plan (Appendix E)	Ongoing	s	High	SIU	SIU Chief of Police
HM14	Update emergency operating plan, in the event of HazMat release contact Fire Dept and other agencies as needed (health dept, Red Cross, railroad companies). Use community center and Baptist church as command centers	ongoing	L,s,f,p	High	Makanda	Village of Makanda

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Flooding, Dam & Levee Failure						
F1	The North-West side of Murphysboro drains via a creek known as Pond-Creek. This creek is prone to flooding during heavy rain. Previous events have flooded both entrance roads to Murphysboro High School, making it inaccessible, as well as flooding the Roberta Drive and N 7th Street neighborhoods. Improving the drainage of pond creek would greatly reduce the threat of flash flooding. Improve the Pond-Creek drainage system. The city can acquire flood prone properties, demolish any structures and place restrictions on the property which prevent any structures from being built on the property in the future. Buyout property which is prone to flooding.	Ongoing	Local; State; Federal	Medium	Jackson County EMA// City of Murphysboro	Murphysboro EMA
F2	Repair aging or deficient levees; Install a piping and valve to interconnect the City of Murphysboro water system with an adjacent water supply system. In the event of a dam failure at Kinkaid Lake, the city would be able to supply water via the interconnected system.	Proposed	Local; State; Federal	Medium	Jackson County EMA// City of Murphysboro	Murphysboro EMA
F3	Shawnee #84 will continue practicing our emergency flood plan in the event a flood happens while school is in session. Shawnee #84 will continue practicing and improving emergency flood procedures if an event occurs when school is in session. This includes: running emergency bus routes when flood waters cover roads, keeping a school population list to ensure all students and staff are accounted for and having an emergency off-site location to go to if the campus has to be evacuated quickly. This location would be the rally point for parents to pick up their children.	Ongoing	Local	High	Jackson County EMA	Shawnee CUSD #84)

F4	Shawnee CUSD #84 will continue to work with local levee commissioners to coordinate emergency efforts in the event of a levee failure. We can assist with emergency communications including a warning system. Our gymnasium can also serve as a temporary shelter if the flooding does not directly impact our campus.	Ongoing	Local	High	Jackson County EMA	Shawnee CUSD #84)
F5	Work with State and Federal partners to replace flood gates at Highway 3 at Cora with a solid levee. Highway 3 should go over the levee, not through. Form a plan with State and Federal partners to install and maintain permanent De-watering pumps in the Grand Tower area. Protection of Life and Property.	Proposed	Local; State; Federal	High	Jackson County EMA	Orval Rowe (Deputy Coordinator of Jackson County)
F6	Work with State and Federal partners to replace flood gates at Highway 3 at Cora with a solid levee. Highway 3 should go over the levee, not through. This is a project that has been around the block a few times with little traction. Continue to work with both levee districts in the County to assist with issues that may need addressed with USACE.	Ongoing	Local; State; Federal	High	Jackson County EMA	Orval Rowe (Deputy Coordinator of Jackson County)
F7	Continue to work with the State of Illinois and Jackson County to facilitate the closure of the lock structure at Cora City and building the Route 3 highway over the top of the levee. This is an ongoing project that has passed the design phase and is awaiting approval for state funding. Hold a public meeting in conjunction with the US Army Corps of Engineers (USACE) with residents from the district to disseminate brochures and information about warning systems in place with Jackson County, evacuation plans in the event of a levee break and other risk management issues. Present at the public forum the USACE developed computer- simulated flood inundation program that simulates potential flooding scenarios with regarding to levee breaks at different areas in the district to help residents and officials better plan for evacuation and other preparedness activities in the event of a emergency.	Proposed	Local; State	High	Jackson County EMA	(Levee Commission, Degognia)
F8	Continue working with the USACE on levee maintenance in order to alleviate problem areas/sand boils in the levee. Continue to seek funding through fundraising efforts, local, county, state and federal funds for improving problem areas in the levee system, which are prone to sand boils. Maintain a contact list of emergency workers/volunteers available in the community for emergency sand bagging in the event of a sand boil.	Ongoing	Local; State	High	Jackson County EMA// Army Corps of Eng.//IEMA	(Levee Commission, Degognia)
F9	Regularly perform drainage system maintenance including culvert replacement, cleaning ditches, pump and lock maintenance, and annual upkeep and inspection of seep wells. Continued participation in FEMA's National Flood Insurance Program and remaining in compliance with their floodplain management policies. Work with FEMA on a buy-out program, if necessary, in the event of a future flooding disaster.	Ongoing	Local; State	High	Jackson County EMA// Army Corps of Eng.//IEMA	(Levee Commission, Degognia)
F10	Replace the roads on Steele/Gale/and Harrison Streets/Roads in Vergennes, in order to alleviate flooding. Possibly replace culverts if needed. Make a purchase for barricades to close roads.	Ongoing	Local; State; Federal	Medium	Jackson County EMA//IEPA//IEMA/ Fire Department	Vergennes

F11	Raise utilities and appliances. Electrical panel box, furnaces, water heaters, and appliances such as washers and dryers should be elevated out of the base flood height. Utilize GIS to determine which homes in your community are in a flood plain or at risk of flooding. Alert residents and provide information on how they can mitigate their homes and property against floods	Proposed	Local; private	Medium	Homeowners// City engineers and GIS specialist	(Carbondale EMA
F12	Implement an emergency action plan to help identify potential emergency conditions at a dam and specifies pre-planned action to help minimize property damage. Early warning systems to help notify residents of possible dam failure including public audible systems as well as adopting visible systems (strobe lights).	Ongoing	Local; State	Medium	US fish and wildlife services/ IEPA/ Jackson County EMA	Carbondale EMA
F13	Trico district as emergency housing for displaced families in the event of levee failure	Proposed	Local	Medium	American Red Cross/ County EMA/ Local First Responders(Fire Dept. and Police Dept.)	Trico CUSD #176)
F14	Utilize a plan, where CCHS may be of assistance to other agencies. Due to elevations in the area, flooding is unlikely. A plan would be set in place to open the building up for other agencies to use.	Proposed	Local	Low	Carbondale Community High School Staff//Jackson County EMA	CCHS
F15	Utilize building for other agencies. The building could serve as a headquarters for other agencies. The school/building itself is not close to a dam or levee.	Proposed	Local	Low	Carbondale Community High School Staff//Jackson County EMA	CCHS
F16	Keep ditches cleared of debris, and ensure other water ways are maintained.	Ongoing	Local	Low	Jackson County EMA/ Village of Dowell Fire department	(Village of Dowell)
F17	Regularly perform drainage system maintenance. Update urban areas to withstand stormwaters.	Proposed	Local	Medium	Jackson County EMA	Elverado CUSD #196)
F18	In the event of a dam failure: Regularly perform drainage system maintenance; Update evacuation protocols for high potential loss dams and levee districts.	Proposed	Local	Medium	Jackson County EMA	Elverado CUSD #196)
F19	Monitor lake levels during flooding, visually inspect spillway for blockages and debris	Ongoing	Local	Low	KRCCD	KRCCD
F20	Regularly inspect dam for damage or signs of failure	Ongoing	Local	Medium	KRCCD	KRCCD
F21	INDR conducts scheduled inspections, document any changes that occur	Ongoing	State	Medium	IDNR	KRCCD
F22	Look at further downstream detention facilities to reduce flooding impact on the eastern portion of Airport Road. Continue to measure runoff from Airport and current detention facility effectiveness. Improvements or additional detention facilities to be funded at the local level with SIAA funds.	Proposed	Local,Federal	Medium	SIAA	SIAA

F23	flood proof or elevate critical facilities/utilities that are a risk, culvert replacement, elevate low lying roads, retrofit water supply system	Proposed	I,s,f,p	Medium	County EMA, KRCCD, County Highway Dept, Cities and Villages	Campbell Hill Board
F24	go door to door during severe floods to make sure no one is stranded	Proposed	I,s,f	High	Elkville Police & Fire	Elkville Village Clerk
F25	Culvert replacement, raise vulnerable structures	Ongoing	I	Low	Ava	Mayor of Ava

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Drought, Extreme Heat						
D1	Have a public shelter facility available to act as a cooling shelter in times of excessive heat.	Proposed	Local; State; Federal	Medium	Jackson County EMA//Murphysboro EMA// IEMA	, Murphysboro EMA
D2	While working to build storm shelters in the County, we would make them accessible for warming/cooling centers.	Proposed	Local; State; Federal	Medium	Jackson County EMA// IEMA	Orval Rowe (Deputy Coordinator of Jackson County)
D3	Establish community cooling centers for vulnerable populations. Convert the winter warming center into a cooling center during the warmer months. Create a water supply plan management of water conservation for rain water catchments and storage.	Ongoing	Local	Low	City of Carbondale/ Jackson County Housing and Utilities department/ Homeowner	(Carbondale EMA
D4	Use building as a resource and aid to agencies or community. The school itself would close due to extreme heat. The building could be use as a headquarters for other agencies if need be.	Proposed	Local	Low	Carbondale Community High School Staff//Jackson County EMA	CCHS
D5	Fire department/ church can be used as cooling centers if needed.	Ongoing	Local	Low	Jackson County EMA/ Village of Dowell Fire department	(Village of Dowell)
D6	Provide cooling centers for vulnerable populations. Establish wildfire prevention management strategies.	Proposed	Local	Low	Jackson County EMA/ Elverado School District	Elverado CUSD #196)
D7	monitor lake levels during drought, update emergency response plant when necessary.	Ongoing	Local	low	KRCCD	KRCCD
D8	develop a water action plan, retrofit water supply systems, develop and enforce water use restrictions and burn ordinances during droughts, create additional cooling shelters, equip critical facilities with generators.	Proposed	I,s,f,p	Medium	Campbell Hill Fire, County EMA, KRCCD, Cities/villages	Campbell Hill
D9	Check on elderly & those without electricity during heat waves	Proposed	I,s,f,p	High	Elkville Police & Fire	Elkville
D10	Promote the idea of cool roofs (paint roofs white; reflective tiles = reflects sunlight, absorbs less heat). Acquire secondary resources for water and cooling. Follow State mitigation plan for reduced water consumption following the Governors mandates for provisions	Proposed	s	Medium	SIU	SIU Chief of Police

D11	Provide cooling centers for vulnerable population, establish fire prevention strategies	Proposed	I	Low	Ava	Mayor of Ava
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Winter Storms						
W1	The City of Murphysboro maintains multiple trailer-mounted generators to power critical infrastructure in the event of a power loss. Have generators available to power critical facilities in the event an ice storm takes out power lines. It is critical to maintain a sufficient supply of salt and cinders to be applied to city streets during winter storms. Maintain a sufficient supply of salt and cinders to apply to city streets following a severe winter storm.	Ongoing	Local; State; Federal	High	Jackson County EMA//Murphysboro EMA// IEMA	, Murphysboro EMA
W2	Continue education of County residents protect their families during severe winter weather events. Plan to look at locations in the County for safe shelters and warming shelters, cooling shelters with generators while power is lost for long periods of time.	Ongoing	Local	Medium	Jackson County EMA//Murphysboro EMA// IEMA	Orval Rowe (Deputy Coordinator of Jackson County)
W3	Assist in alerting levee district residents of disasters/impending disasters utilizing the district's email network, the Community for a Safe Levee Facebook page, and Jackson County EMA's alert warning system. Hold a public meeting with citizens from the district to disseminate emergency protective strategies including available safe zones at the Gorham Volunteer Fire Department and Christ Lutheran church basement and a list of contact information for emergency personnel in the area including Jackson County officials and the Gorham Volunteer Fire Department first responders. Keep a copy of relevant disaster plans and hazmat plans from Jackson County EMA and other relevant offices in the township office for public knowledge.	Ongoing	Local	Medium	Jackson County EMA//Murphysboro EMA// IEMA	Levee Commission, Degognia)
W4	Snow Plowing and salting the roads; New trucks and snow plows. (Find a grant for new vehicles for snow plowing)	Ongoing	Local; State; Federal	High	Jackson County EMA	Vergennes
W5	Identify locations for heating centers or shelters for vulnerable populations and stranded motorist. Carbondale has a warming center in place on East College Street. Coordinate with local utility organizations to increase the homeowner and community education about potential storm effects and possible mitigation activities	Proposed	Local; State; Federal	Medium	Jackson County EMA/ Utility companies	Carbondale EMA)
W6	Early dismissal/release procedures	Ongoing	Local	Medium	IDOT/ Jackson County Road Crew (Salt trucks and plows)	Trico CUSD #176)
W7	Set plan in place for such event. We would cancel school and close the building in efforts for safety. We would assess damages and apply for funding if need be.	Proposed	Local	Medium	Carbondale Community High School Staff//Jackson County EMA	CCHS

W8	Education for community of where warming shelters are available. Improvements made on the notification system for the community on an all-call service.	Ongoing	Local	Medium	Fire department of De Soto/ Jackson County EMA	Chief of Police of De Soto)
W9	Make sure the roads are taken care of; cleared of ice, salted, and that trucks are properly maintained. Use fire department if needed for a warming center.	Ongoing	Local; State	Medium	Jackson County EMA/ Village of Dowell Fire department	(Village of Dowell)
W10	Purchase/maintain a supply of salt and other de-icing chemicals. Develop a vulnerable population list.	Proposed	Local	High	Jackson County EMA/ Elverado School District	Elverado CUSD #196)
W11	SIAA has a plan to deal with this Risk, however, continual review and updating is necessary. Updating our stock of emergency supplies sufficient for a predetermined number of people would be a wise investment.	Proposed	Local, Federal	High	SIAA	SIAA
W12	Acquire deicing chemicals, establish network of 4WD/off road vehicles to access stranded people, create additional warming center, equip critical facilities with backup generators	Proposed	l,s,f,p	High	Campbell Hill fire, County EMA, County Highway Dept, IDOT	Campbell Hill Board
W13	Maintain emergency notification system for staff, faculty and students. Response mechanism for Emergency Operations Center if needed.	Ongoing	State	Medium	SIU	SIU Chief of Police
W14	Purchase/maintain salt stockpile, ensure City has proper equipment	Ongoing	l	Low	Ava	Mayor of Ava

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Pandemic/Disease Outbreak						
P1	Develop a plan within each department for employees to work in isolation / groups during times of pandemic so that we do not take a chance that an entire department is wiped out due to illness. maintain critical PPE supplies on hand to deal with a contagious outbreak.	Ongoing	Local; State; Federal	Medium	Jackson County EMA//ICDC// Murphysboro EMA// DHHS//DHS	Murphysboro EMA)
P2	Continue to stock PPE supplies to fill the needs to County Departments and Office Holders. Also, to assist in stop gap measures for other entities in the County. (Lessons Learned)/ Assist and promote non pharmaceutical resources. Update our County Emergency Operations Plan with lessons learned and new Standard Operational Procedures from our extended COVID-19 response.	Ongoing	State	Medium	Jackson County EMA/ IEMA/ Health Department	Orval Rowe (Deputy Coordinator of Jackson County)
P3	Invest in strengthening core public health infrastructure; including water and sanitation systems. Southern Illinois Healthcare will be a major partner in making these proposals happen. City of Carbondale should invest in creating a stockpile of PPE supplies for future disease outbreaks/ epidemics. Communication is needed between the local governments and the Illinois emergency management agency/ local suppliers.	Ongoing	Local; State	Medium	Jackson County EMA/ IEMA/ Health Department	Carbondale EMA)
P4	Institute awareness and procedures to help prevent and protect against the outbreak. CCHS would work with programs to educate and prevent spread of the epidemic. Procedures and guidelines will be set and followed by guidance of the local health department and federal laws.	Proposed	Local; State	Medium	Carbondale Community High School Staff//Jackson County EMA	CCHS
P5	Develop Contact tracing protocols and action plan. Develop and disseminate contact tracing protocols.	Proposed	Local	Medium	Unity Point Staff/ Jackson County Health Department	Unity Point)
P6	Stocking up on PPE and educating residents on how we could help if there is an outbreak that has taken place. Work on isolation shelters and implementing them in those locations throughout or village.	Ongoing	Local	Medium	Fire department of De Soto/ Jackson County Health Department	(Chief of Police of De Soto)
P7	Inform the public on health mandates.	Ongoing	Local;State	Medium	Jackson County EMA/ Village of Dowell Fire department	(Village of Dowell)
P8	Enhance reporting and contact tracing protocols. Develop/update plans for mass care situations.	Proposed	Local	Medium	Jackson County EMA/ Elverado School District	Elverado CUSD #196)
P9	Strengthen our plan with SIH to house a mass casualty site on the field, including morgue facility. Improve our notification system, We have a current agreement with SIH that needs to be reviewed to ensure current conditions. Creation of cell/text notification system for all hazards notifications	Proposed	Local	Medium	SIAA, SIH	SIAA

P10	Educate community on pandemics, develop software/website that allows public to pre-register to receive mass-prophylaxis medication, develop solutions for schools to report absences and infected students	Ongoing	I,s,f,p	High	Jackson County Health Dept, Campbell Hill	Campbell Hill Board
P11	Ensure Emergency Operations Center is positioned to combat public health emergencies. Follow in compliance with state and federal mitigation strategies.	Ongoing	State	Medium	SIU	SIU Chief of Police
P12	Enhance reporting and contact tracing protocols. Ensure PPE is available	Proposed	I,s,f	Low	Ava	Mayor of Ava

Code	Mitigation Strategy	Status	Funding Source	Priority	Responsible Organization/ Agency	Strategy Proposed by
Terrorism						
TR1	Offer active shooter training at high-risk facilities. Maintain a dedicated frequency with a repeater for first responders to communicate with school personnel in Murphysboro.	Ongoing	Local	High	Jackson County EMA//Murphysboro EMA//County law enforcement and Murphysboro Police	Murphysboro EMA
TR2	Work with all County First Responders to update our communications to a P-25 compliant digital platform. There is momentum beginning to build for this project to take shape.	Proposed	Local; State; Federal	High	Jackson County EMA// Law Enforcement// Fire Department	Orval Rowe (Deputy Coordinator of Jackson County)
TR3	Assist in alerting levee district residents of terrorism/active shooter emergencies utilizing the district's email network, the Community for a Safe Levee Facebook page, and Jackson County EMA's alert warning system.	Ongoing	Local	Medium	Jackson County EMA// Law Enforcement// Fire Department	Degognia Levee Commission
TR4	Call Jackson County Police; Implementing a notification system in order to alert the public of Vergennes to stay safe and inside their homes.	Ongoing	Local	Medium	Jackson County EMA// Law Enforcement// Fire Department	Vergennes
TR5	Develop an active shooter preparedness plan that includes the following elements: security assessment, preparedness, communications, incident plan, training and exercise, and post incident recovery. Carbondale police already have an active shooter plan in place. Ensure first aid/ trauma kits are updated, and located in appropriate areas and are accessible.	Ongoing	Local	High	Carbondale Police Department/ Jackson County Police Department/ SIH Medical	Carbondale EMA
TR6	Institute training, and procedures to protect the school and persons. Would utilize hands on training and instructions to equip persons within the building how to response and react to such an occurrence.	Proposed	Local	Medium	Carbondale Community High School Staff//Jackson County EMA	CCHS

TR7	Active Shooter Protocol and Plan in place. Review and revise active shooter policy and plan. Participate in yearly active shooter drill with students and educate them on plan should active shooter/Intruder be present on campus.	Ongoing	Local	High	Jackson County EMA/ Jackson County Fire and Sherriff's Departments	Unity Point)
TR8	Education for local schools on active shooter procedures. Improving communication with community and with local schools for public safety.	Ongoing	Local	Medium	Jackson County EMA/ Jackson County Fire and Sherriff's Departments	BChief of Police of De Soto)
TR9	Upgrade/install emergency communication equipment; Upgrade school security systems.	Proposed	Federal	High	Jackson County EMA/ Elverado School District	Elverado CUSD #196)
TR10	Continue training programs among key staff for responding to such incidents. Airport Police Department currently engages in this training but continual improvement is needed. Key staff across all airport entities is also important. Local funding from SIAA.	Ongoing	I,s,f	High	SIAA	SIAA
TR11	Upgrade school entrances to make it difficult for intruders to enter	Proposed	I,s,f,p	Medium	Campbell Hill fist response, County sheriff's dept	Campbell Hill Board
TR12	Enhance warning/ notification system. Develop Active Shooter/ Terrorism emergency action plan (Appendix D-18). Maintain up to date mutual aid agreements. Campus presentations for preparedness. Initiate incident command	Ongoing	s	High	SIU, Jackson County, City of Carbondale	SIU Chief of Police

Code	Mitigation Strategy	Status	Funding Source	Priority	Responsible Organization/ Agency	Strategy Proposed by
Cyberattack						
C1	Continue to educate the County employees with the safest processes for opening emails and clicking sites.	Ongoing	Local;State	High	Jackson County EMA // Jackson County IT Department	Orval Rowe (Deputy Coordinator of Jackson County)
C2	Develop and implement a multi-factor authentication platform to help mitigate possible cyberattacks.	Proposed	Local	Low	City of Carbondale IT Department/ Jackson County EMA // Jackson County IT Department	(Carbondale EMA
C3	Plan and procedures set in place. Set up procedures on how to respond and repair issues.	Proposed	Local	Low	Carbondale Community High School Staff//Jackson County EMA	CCHS
C4	Provide resources for the public on cyber security for home computers and smartphones; Make local businesses and government offices aware of the Illinois Attorney General's office of data breach reporting system.	Proposed	Local; State	Low	Jackson County EMA/ Elverado School District	Elverado CUSD #196)

C5	Assess weaknesses and vulnerabilities within SIAA systems and identify mitigation measures	Proposed	Local	High	SIAA	SIAA
C6	Update virus protection software for City network, provide cybersecurity resources for the public.	Proposed	I	Low	Ava	Mayor of Ava

Code	Mitigation Strategy	Status	Funding Source	Priority	Responsible Organization/ Agency	Strategy Proposed by
Power outage/ utility disruption						
O1	We maintain several trailer-mounted generators to supply power to critical infrastructure in the event of an extended power outage. Maintain a handful of portable generators to supply power to critical infrastructure. Retrofit all critical facilities with generator power or at least with a transfer switch to easily supply power with an external generator.	Proposed	Local; State; Federal	Medium	Jackson County EMA// Murphysboro Utility Department	Murphysboro EMA
O2	Retrofit all critical Infrastructures in the County with backup generators or transfer switches for portable generator systems. Continue working relationships with local power companies for assistance when a response occurs.	Proposed	Local; State; Federal	Medium	Jackson County EMA // Jackson County Utility Department// IEMA	Orval Rowe (Deputy Coordinator of Jackson County)
O3	Find communication through radios; and having a backup generator for the community center as a means of emergency response.	Ongoing	Local; State; Federal	High	Jackson County EMA // Jackson County Utility Department// IEMA	Vergennes
O4	Install backup power systems, such as good generators at critical facilities. City of Carbondale already have back up power systems located in city hall, Carbondale police department, Carbondale fire department, the water treatment plant, and the public works facility.	Ongoing	Local	High	City of Carbondale/ Utilities department	(Carbondale EMA
O5	Perform procedures and instructions on how to respond. Work with local agencies, and building coordinators to respond quickly.	Proposed	Local	Low	Carbondale Community High School Staff//Jackson County EMA	CCHS

O6	Keep in constant contact with local power companies. Continued education on what to do during an extended power outage. Provide warning for cooling shelters and warming shelters for people to go to during long term outages.	Ongoing	Local	Medium	Jackson County EMA/ Jackson County Fire and Sherriff's Departments	(Chief of Police of De Soto)
O7	In the case of a power outage, check on people who have medical machines and make sure they have a way to power them. Fire department can be used as a possible shelter if needed.	Ongoing	Local	Low	Jackson County EMA/ Village of Dowell Fire Dept.	(Village of Dowell)
O8	Identify key facilities not currently served by back-up generators. The Airport's sewer lift station may be a good candidate. Local funds from SIAA	Proposed	l,s,f	Medium	SIAA	SIAA
O9	Improve communication between utility companies, create additional warming/cooling centers, install backup generators at critical facilities	Proposed	l,s,f,p	Medium	Ameren, Egyptian Electric, Campbell Hill fire, County EMA	Campbell Hill Board
O10	notify public on social media, notify on-duty police	Proposed	l,s,f	High	Elkville Police & Fire	Elkville Village Clerk
O11	Regularly service/check power generators throughout campus. Maintain alert notification system.	Ongoing	s	Low	SIU	SIU Chief of Police
O12	Cooling and/or warming centers for vulnerable population. Acquire backup generators.	Proposed	l,s,f	low	Ava	Mayor of Ava

Code	Mitigation Strategy	Status	Funding Source	Priority	Responsible Organization/ Agency	Strategy Proposed by
Ground Failure						
G1	Use ground penetrating radar to create a more accurate map of underground mines. Maintain maps of known underground mines. Avoid building any critical infrastructure or public facilities on areas known to be undermined. Maintain a map of areas known to be undermined by coal mines.	Ongoing	Local; State; Federal	Medium	Jackson County EMA//EMA//USGS//IDNR	Murphysboro EMA
G2	Build a relationship with the Illinois Department of Natural Resources (IDNR) to partner with information sharing before a response to an incident.	Proposed	Local	Medium	Jackson County EMA//EMA//USGS//IDNR	Orval Rowe (Deputy Coordinator of Jackson County)
G3	Stormwater control measures will be implemented to minimize surface water run-off into known or encountered karst/sink holes. Post-Construction monitoring of identified areas will occur annually to identify any evidence of further sinkhole development with implementation of any measures necessary to prevent further solutions of underlying bedrock	Ongoing	Local	Low	Jackson County EMA/ EPA	(Carbondale EMA
G4	Institute plan to rebuild or revamp damage to structures and property. CCHS would apply for funding to rebuild or demolish structures. The buildings and properties would be monitored and evaluated.	Proposed	Local	Medium	Carbondale Community High School Staff//Jackson County EMA	CCHS
G5	Fill in any possible sinkholes.	Ongoing	Local; State	Medium	Jackson County EMA/ Village of Dowell Fire department	(Village of Dowell)
G6	Maintain a list of structures constructed over underground mines. Education programs/literature regarding mine subsidence insurance for home and landowners.	Proposed	Local; State	Medium	Jackson County EMA/ Elverado School District	Elverado CUSD #196)
G7	Maintain a list of structures constructed over underground mines.	Proposed	Local	low	KRCCD	KRCCD
G8	Monitor ground for evidence of subsidence	Ongoing	Local	low	KRCCD	KRCCD
G9	Map and asses community vulnerability to ground failure, maintain list of buildings over underground mines	Proposed	l,s,f,p	medium	Campbell Hill fire, County EMA	Campbell Hill
G10	Make a list of properties over old mine sites, education programs about mine subsidence insurance	Proposed	l,s,f	low	Ava	Ava

Code	Mitigation Strategy	Status	Funding Source	Priority	Responsible Organization/ Agency	Strategy Proposed by
Wildfires						
F1	Have a mutual aid network in place to provide necessary resources in the event of a major wildfire. Properly manage forest through control burns.	Ongoing	State;Federal	Medium	Jackson County EMA//Murphysboro Fire Department	Murphysboro EMA Director)
F2	Assist in alerting levee district residents of disasters/impending disasters utilizing the district's email network, the Community for a Safe Levee Facebook page, and Jackson County EMA's alert warning system. Hold a public meeting with citizens from the district to disseminate emergency protective strategies and a list/contact information for emergency personnel in the area including Jackson County officials and the Gorham Volunteer Fire Department first responders. Keep a copy of relevant disaster plans from Jackson County EMA and other relevant offices in the township office for public knowledge.	Ongoing	State;Federal	Medium	Jackson County EMA/ Fire Department	Degognia (Levee Commission
F3	Call the fire department/MABIAS. Coordinate with a volunteer group to help with caring for fire fighters while they manage possible wildfires.	Ongoing	State;Federal	Low	Jackson County EMA/ Fire Department	Vergennes)
F4	Create a safety zone to separate homes from combustible vegetation. Prune all branches around residential homes and building s to a height of 8-10 feet. Keep trees adjacent to buildings free from dead or dying wood and moss. Make sure electrical lines are buried properly.	Proposed	Local; Private	Low	Carbondale Utilities department (Ameren)/ homeowners/ Fire department/ Jackson county EMA	(Carbondale EMA Coordinator)
F5	Work with local fire agencies. Assess damages and apply for funding to rebuild and restore.	Proposed	Local	Low	Carbondale Community High School Staff//Jackson County EMA	CCHS
F6	Continue prescribed fires to reduce accumulated fuels, work with private landowners to conduct burns on their land	Ongoing	Federal	Medium	USFWS	KRCCD
F7	Develop/enforce water use restrictions and burn ordinances during droughts, have an alternative Emergency Operations Center	Proposed	I,s,f,p	High	IDNR, Campbell Hill fire, county EMA	Campbell Hill
F8	Public outreach on wildfire risk, work with other counties to establish protocols	Proposed	I,s,f	Low	Ava, Jackson County	Mayor of Ava

Code	Mitigation Strategy	Status	Funding Source	Priority	Responsible Organization/ Agency	Strategy Proposed by
Near-Earth Object Impact (asteroids, meteorites)						
N1	Assist in alerting levee district residents of disasters/impending disasters utilizing the district's email network, the Community for a Safe Levee Facebook page, and Jackson County EMA's alert warning system	Ongoing	Local	Medium	Jackson County EMA	Degognia Levee Commission)
N2	Assess damage and utilize recovery plan. Work with other agencies to assess damage and make recovery efforts	Proposed	Local	Low	Carbondale Community High School// Jackson County EMA	CCHS

Code	Mitigation Strategy	Status	Funding Source	Priority	Responsible Organization/ Agency	Strategy Proposed by
Other Potential Hazards						
OH1	Create a map of the county which identifies any areas which may be susceptible to land slides. Most landslides in this area are along and near highways; Have a plan to address areas along state highways which are prone to landslides.	Proposed	State; Federal	Medium	IDOT//USGS/Jackson County EMA	Murphysboro EMA Director)
OH2	Acid Ponds - Form a working relationship with IDNR to explore hazards contained in the County from Acidic Ponds left over from strip cutting coal mines.	Proposed	Local; State	Low	Jackson County EMA/ IDNR	Orval Rowe (Deputy Coordinator of Jackson County)
OH3	Train Derailment- Continue to train and exercise with County and State partners to exercise our capabilities before an actual response.	Ongoing	Local; State; Federal	High	Jackson County EMA// Fire Department	Orval Rowe (Deputy Coordinator of Jackson County)
OH4	Pipeline Explosion- Continue to attend Annual Pipeline Safety meetings and build relationships with their representatives before an actual response.	Ongoing	Local; State; Federal	High	Jackson County EMA	Orval Rowe (Deputy Coordinator of Jackson County)
OH5	Landslide- Utilize plan to recover and rebuild. Work with other agencies to help with restoring the property.	Proposed	Local	Low	Carbondale Community High School// Jackson County EMA	CCHS
OH6	Infestation/Invasive Species- Utilize plan to eliminate the issue. Set a plan in place to eliminate the issue.	Proposed	Local	Low	Carbondale Community High School// Jackson County EMA	CCHS
OH7	Infestation/Invasive Species: Create plans with IDN and County Animal Control	Proposed	I,s,f,p	Medium	IDNR, Jackson County Animal Control	Campbell Hill
OH8	Invasives: use herbicides	Proposed	I,s,f,p	Low	Village of Elkhville	Elkhville
OH 9	General natural disaster: Have a plan in place for debris cleanup, make sure all residents are accounted for following disasters	Proposed	L,s,f,p	High	Elkhville Fire & Police	Elkhville
OH10	Abandoned properties have been a health and safety issue, current tactics include sending letters to property owners of record, and contacting County health and sheriff's departments. Other ideas would be considered	Ongoing	L,s,f,p	High	Village of Makanda, Sheriff's Office, JCHD	Makanda

OH11	Nuisance animals, groundhogs and armadillos are a continuing issue for the village	ongoing	L,s	High	Village of Makanda, Jackson County Animal Control, JCHD	Makanda
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Code	Mitigation Strategy	Status	Funding Source	Priority	Responsible Organization/ Agency	Strategy Proposed by
All Hazards						
	Have a plan in place for debris clean up, make sure all residents are accounted for following disasters	Proposed	L,s,f,p	High	Elkville Fire & Police	Elkville
	Update all emergency operation plans, Use community Center and Baptist Church for command center and shelter	Ongoing	L,s	High	Village of Makanda	Makanda