



# JACKSON COUNTY MULTI-HAZARD MITIGATION PLAN



**FEMA**



**Meeting**  
**February 22, 2021**  
**10:00 AM**



# Agenda

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1. Welcome and Introductions
2. Multi-Hazard Mitigation Planning Updates
3. Hazards and Essential Facilities Overview
4. Mitigation Strategies Review
5. Feedback from Planning Team
7. Adjourn

*Tyler Carpenter, Environmental Planning Director - Greater Egypt*

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# Match Requirements

- 75% Federal Dollars for Planning
- 25% Local Match Needed
- Match is Met by Your Participation
  - Meeting Attendance
  - Outside Work on Plan
  - Travel
  - Other Costs
- Current Match: 97% (\$8,079/8,333)
- MHMP Match Survey

## MHMP-Salary and Benefit Request

As you are aware, Greater Egypt has contracted with Jackson County to assist with the completion of the 5-year update to the Multi-Hazard Mitigation Plan. As a federally-funded project, 25% of the cost of the update must be met by Jackson County and other local agencies that participate in the plan update. The match is met through in-kind support or "sweat equity" by the representatives of the participating agencies who attend meetings and take part in the update process. IEMA and FEMA require the actual salary and benefit rates to be used to calculate the cost.

We respectfully request that you provide the names and compensation information for the employees and representatives of your agency who have attended meetings so far, or who have not attended meetings but will eventually be involved in the update process. Please provide this information in the Salary and Benefit Request. This information will remain in strict confidence and will only be utilized to complete the required reports for the IEMA Grant Manager in Springfield.

For questions regarding this request, feel free to contact Greater Egypt at 618-997-9351.

Email \*

Valid email

This form is collecting emails. [Change settings](#)

First Name \*

Short answer text

Last Name \*

Short answer text



# Responsibilities of Planning Partners

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- ~~• Represent an authorized jurisdiction in the county~~
- ~~• Attend two meetings during planning process~~
- ~~• Complete Hazard Ranking exercise for your jurisdiction~~
- ~~• Propose two mitigation strategies for each hazard~~
- Assist with meeting match requirements through participation
- Assist with data collection for hazard modeling



# Hazard Ranking Review

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1. Tornado
2. Disease outbreak/epidemics
3. Earthquake
4. Severe winter weather
5. Severe thunderstorm
6. Flooding
7. HazMat release
8. Drought/extreme heat
9. Levee failure
10. Cyber attack
11. Terrorism/ active shooter
12. Ground failure (mine subsidence or karst sinkholes)
13. Dam failure
14. Utility disruption/power outages
15. Meteor
16. Wildfire
17. Landslide
18. Infestation/invasive species



# Partner Acknowledgemets

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Special thanks to those who assisted in reviewing and updating essential facilities lists !

- EMA Coordinator: Orval Rowe
- Carbondale Fire Captain: Ryan Hall
- Grand Tower Mayor: Josh Freeman
- Murphysboro Fire Chief: Steve McBride
- Jackson Co Ambulance: Kenton Schafer



# Essential Facility Review

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**Please speak up if you see a spelling error  
or incorrect address!**

**Last and final chance to add in any other facilities that  
may be essential to your jurisdiction!**

**This information will be updated into the FEMA  
CDMS/Hazus Statewide dataset for others to use, it needs  
to be as accurate as possible**



## Essential Facilities List – Hospitals

Name	AHA ID	# Beds	Backup Power?	Address	City	Zip Code	Yr Built	Replacement Value
St Joseph Memorial Hospital		25		2 Hospital Dr	Murphysboro	62966	1978	3401.4375
Memorial Hospital of Carbondale		159		405 W Jackson St	Carbondale	62901	1971	21633.1426



## Essential Facilities List – Ambulance Stations

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Name	Address	City	Zip	Yr Built	Backup Power
Jackson County Ambulance Service Headquarters	520 North University Avenue	Carbondale	62901	1984	Yes
Jackson County Ambulance Service-Station 2	1439 North 14th Street	Murphysboro	62966	1986	No
Jackson County Ambulance Service-Station 3	302 South 3rd Street	Ava	62907	1996	No



# Essential Facilities List – Fire Protection

City	Facility Name	Address	Zip	Year Built	Kitchen?	Backup Power?	Trucks & other equipment	Sq Ft	Replace ment Value
Ava	Ava Fire Department	312 W Main St	62907	1975				11000	2796.53
Campbell Hill	Campbell Hill Rural Fire District 162	109 West Front Street	62916	1975				11000	2796.53
Carbondale	Carbondale Fire Department Station 1	600 E. College St	62901	1972				11000	2796.53
Carbondale	Carbondale Fire Department Station 2	401 N. Glenview	62901	2014				11000	2796.53
Carbondale	Carbondale Township Fire Department	1125 E Park St	62901	1981				11000	2796.53
De Soto	De Soto Township Fire Protection Dist	210 W Lincoln St	62924	1970				11000	2796.53
Dowell	Dowell Volunteer Fire Department	215 Union Ave	62927	1970				11000	2796.53
Elkville	Elkville Volunteer Fire Department	103 N 5th St	62932	1970				11000	2796.53
Gorham	Gorham Fire Department	205 Washington St	62940	1968				11000	2796.53
Grand Tower	Grand Tower (Tower Rock) Fire Department	620 Front St	62942	1968				11000	2796.53
Carbondale	Makanda Township Volunteer Fire Dept S1	5420 Old Highway 51	62903	1983				11000	2796.53
Carbondale	Makanda Township Volunteer Fire Dept S2	5975 Giant City Rd	62902	1983				11000	2796.53
Murphysboro	Murphysboro Fire Department Station 1	219 North 10TH ST	62966	1952				11000	2796.53
Murphysboro	Murphysboro Fire Department Station 2	1616 Pine St	62966	1952				11000	2796.53
Murphysboro	Murphysboro-Pomona-Somerset Fire Prot	771 Kimmel Bridge Rd	62966	1952				11000	2796.53
Vergennes	Vergennes Fire Department	700 W Porter Ave	62994	1975				11000	2796.53



# Essential Facilities List – Police & Emergency Management

Name	Address	City	Zip Code	Backup Power?	Comments	Sq Ft	Replacement Value
Carbondale Emergency Operations Center	401 N. Glenview	Carbondale	62901		Carbondale Fire S2	11000	2796.53
Jackson County Emergency Operations Center	1001 Chestnut St	Murphysboro	62966 Y		Murphysboro Courthouse	11000	2796.53

Name	Address	City	Zip Code	Yr Built	Backup power?	Sq Ft	Replacement Value
Ava Police Department	312 W Main St	Ava	62907	1975		11000	2796.53
Carbondale Police Department	501 S. Washington Street	Carbondale	62901	2012		11000	2796.53
Desoto Police Department	210 W Lincoln St	De Soto	62924	1970		11000	2796.53
Dowell Village Police Department	215 Union Ave	Dowell	62927	1970		11000	2796.53
Elkville Police Department	507 E Kimmel St	Elkville	62932	1970		11000	2796.53
Jackson County Sheriffs Department	1001 Mulberry St	Murphysboro	62966	1952		11000	2796.53
Murphysboro Police Department	202 N 11th St	Murphysboro	62966	1952		11000	2796.53
Southern Illinois Airport Authority	605 N Airport Rd, Suite 205	Murphysboro	62966	1971		11000	2796.53
SIU Carbondale Police	1175 South Washington St.	Carbondale	62901	1975		11000	2796.53



# Essential Facilities List – Schools

District/Type	Name	Grades	Address	City	Zip Code	Yr Built	Shelter Capacity	Kitchen?	Backup Power?	Sq Ft	Replacement Value
Elverado CUSD #196	Elverado High School		514 S 6th St	Elkville	62932	1970				10642.86	2145.91
Elverado CUSD #196	Elverado Primary School		114 S 8th St	Elkville	62932	1970				9000	1814.67
Murphysboro CUSD #186	Carruthers Elementary School	3-5	80 Candy Ln	Murphysboro	62966	1978				33500	6754.05
Tri County	COPE Alternative School		1725 B Shomaker Dr	Murphysboro	62966	1963				1142.85	230.43
Murphysboro CUSD #186	General John A Attendance Center	k-2	320 Watson Rd	Murphysboro	62966	1952				36357.14	7330.69
Private School	Immanuel Luthern School	PreK-8	1915 Pine St	Murphysboro	62966	1963				3071.42	619.292
Murphysboro CUSD #186	McElvain School	preK-K	593 Ava Rd	Murphysboro	62966	1978				9214.28	1857.76
Private School	Montessori School of Southern Illinois		507 N 9th St	Murphysboro	62966	1952				428.57	86.412
Murphysboro CUSD #186	Murphysboro High School	9-12	50 Blackwood Dr	Murphysboro	62966	1978				45500	9174.16
Murphysboro CUSD #186	Murphysboro Middle School	6-8	2125 Spruce St	Murphysboro	62966	1963				34785.71	7013.84
Private School	Saint Andrew School	pre-K - 8	723 Mulberry St	Murphysboro	62966	1952				9428.57	1901.08
Tri County	TC Center School & Education Annex	special education	1725 Shomaker Dr	Murphysboro	62966	1963				642.85	129.619
Elverado CUSD #196	Elverado Intermediate		190 Harrison St	Vergennes	62994	1975				7428.57	1497.82
Elverado CUSD #196	Elverado Junior High		190 Harrison St	Vergennes	62994	1975				6357.14	1281.79



# Essential Facilities List – Schools

District/Type	Name	Grades	Address	City	Zip Code	Yr Built	Shelter Capacity	Kitchen?	Backup Power?	Sq Ft	Replacement Value
Trico CUSD #176	Trico Elementary School		16343 Highway 4	Campbell Hill	62916	1975				31357.1	6322.54
Trico CUSD #176	Trico High School		16533 Highway 4	Campbell Hill	62916	1975				19071.4	3845.33
Trico CUSD #176	Trico Junior High School		16533 Highway 4	Campbell Hill	62916	1975				20928.57	4219.828
Not-for-profit Private School	Brehm Preparatory School	6-12+	950 S Brehm Ln	Carbondale	62901	1981				5642.8	1137.7657
CCHS District #165	Carbondale Community High School	9-12	1301 E Walnut St	Carbondale	62901	1972				78714.2	15871.19
Carbondale Elementary School District #95	Carbondale Middle School	6-8	1150 East Grand Avenue	Carbondale	62901	1972				32714.2	6596.189
Giant City CCSD #130	Giant City School		1062 Boskydell Rd	Carbondale	62902	1975				5071.42	1022.559
Carbondale Elementary School District #95	Lewis Elementary School	4-5	801 S. Lewis Lane	Carbondale	62901	1983				18571.4	3744.53
Carbondale Elementary School District #95	Parrish School	preK-1	121 N Parrish Ln.	Carbondale	62901	1972				21142.8	4263.06
Public University	Southern Illinois University - Carbondale	Undergraduate & Graduate	1263 Lincoln Dr	Carbondale	62901	1974				38571.43	7777.158
Carbondale Elementary School District #95	Thomas Elementary School	2-3	1025 North Wall Street	Carbondale	62901	1975				159533	272881.3
Unity Point CCSD #140	Unity Point School		4033 S Illinois Ave	Carbondale	62903	1982				24785.71	4997.543
Not-for-profit Private School	Carbondale New School	preK-4	1302 E Pleasant Hill Rd	Carbondale	62902	1974				9785.71	1973.094
Private School	Trinity Cristian School	K3-12	1218 West Freeman St.	Carbondale	62901	1983				54357.1	110960.04
De Soto Consolidated School District #86	DeSoto Grade School	k-8	311 Hurst Rd	De Soto	62924	1970				17428.5	3514.127



# 5 min break

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# Mitigation Strategies

The purpose of mitigation planning is for State, local, and Indian tribal governments to identify the natural hazards that impact them, to identify actions and activities to reduce any losses from those hazards, and to establish a coordinated process to implement the plan, taking advantage of a wide range of resources. (Stafford Act Title 44, Chapter 1, Part 201).



Sugar Camp coal mine near Benton in southern Illinois on Sept. 16.

E. JASON WAMBSGANS, CHICAGO TRIBUNE

## Something in the water

Fire and toxic foam ravage Sugar Camp coal plant

KALLIE COX  
The Southern

extinguish it, operators dumped 46,000 gallons of toxic foam into the mine.

Environmental experts say a foam that contains a group

### The scope of the issue

Twenty days after the Illinois EPA learned of the use of PFAS and received reports that it was detected on a nearby creek on

from the transfer and storage of firefighting foam concentrate, the expedient clean up and removal of any spilled firefighting foam concentrate, and the rou-



Grand Tower has approved an emergency loan to make repairs to a massive sinkhole that has been growing since Friday.

PROVIDED



RYAN C. NEWMAN, LEXINGTON HERALD-LEADER

Buildings are left derelict in downtown Mayfield, Ky., on Saturday in the wake of a deadly tornado that swept through the region Friday night. Kentucky Gov. Andy Beshear said upward of 70 may have died when a twister touched down for more than 200 miles in the state.

## DEADLY STORMS



The north end of Brier Creek Road, where it intersects Ingram Hill Road, remains closed from flooding.

TRAVIS DENEAL PHOTO



# Mitigation Strategies

- **Goal 1: Lessen the impacts of hazards to new and existing infrastructure**
  - *Objective:* Retrofit critical facilities and structures with structural design practices and equipment that will withstand natural disasters and offer weather-proofing.
  - *Objective:* Equip public facilities and communities to guard against damage caused by secondary effects of hazards.
  - *Objective:* Minimize the amount of infrastructure exposed to hazards.
  - *Objective:* Evaluate and strengthen the communication and transportation abilities of emergency services throughout the county.
  - *Objective:* Improve emergency sheltering in Jackson County.
- **Goal 2: Create new or revise existing plans/maps for Jackson County**
  - *Objective:* Support compliance with the NFIP for each jurisdiction in Jackson County.
  - *Objective:* Review and update existing, or create new, community plans and ordinances to support hazard mitigation.
  - *Objective:* Conduct new studies/research to profile hazards and follow up with mitigation strategies.
- **Goal 3: Develop long-term strategies to educate Jackson County residents on the hazards**
  - *Objective:* Raise public awareness on hazard mitigation.
  - *Objective:* Improve education and training of emergency personnel and public officials.



# Mitigation Strategies Highlights

## Flooding

Strategy	Priority	Proposed By
Improve drainage of pond creek to reduce flash flooding in Murphysboro	Medium	Brian Manwaring (Murphysboro EMA)
Replace Cora/Highway 3 floodgates with a levee and reroute the road	High	Orval Rowe, Mark & Rita VanPelt (County EMA, Degognia Levee Commission)
Develop protocols to use TriCo as emergency housing for displaced families in the event of levee failure	Medium	Larry Lovel (TriCo CUSD 176)
Look at further downstream detention facilities to reduce flooding impact on the eastern portion of Airport Road.	Medium	Gary Shafer (SI Airport Authority)
Continue to repair & maintain levees, especially in areas at high risk of sand boils	High	Mark & Rita VanPelt (Degognia Levee Commission)
Have a plan in place to check for stranded residents in the event of severe flooding	High	Lauana Wright (Elkville)



# Mitigation Strategies Highlights

## Tornados / Severe Storms

Strategy	Priority	Proposed By
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.	Medium	Ryan Hall (Carbondale EMA)
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.	High	Mary Beth Goff (Unity Point School)
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.	High	Orval Rowe (County EMA)
Prepare and distribute severe weather plans for all employees. Monitor weather conditions so employees can move to secure locations when necessary	Medium	Scott Wilmouth (KRCCD)



# Mitigation Strategies Highlights

## Earthquakes

Strategy	Priority	Proposed By
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)	High	Ryan Hall (Carbondale EMA)
Develop earthquake emergency action plans. Install automatic shutoff valves.	High	Multiple
Build a new regional Emergency Operations Center	Medium	Orval Rowe (County EMA)
Institute a build back and recovery plan for loss of properties.	Medium	Stephanie Dillow (CCHS)
Design utility services to supply critical facilities first during emergency situations.	Medium	Scott Wilmouth (KRCCD)
Retrofit old structures to meet seismic building codes	Medium-High	Multiple



# Mitigation Strategies Highlights

## HazMat Release

Strategy	Priority	Proposed By
Provide HazMat Training for first responders	Medium	Multiple
Have evacuation protocols in place for schools and other facilities in close proximity to railroads	Medium	Brian Manwaring
Have alternate routes and evacuation plans in place for residents in the event of train derailment	Medium	Multiple
Equip facilities with centralized positive-pressure HVAC systems.	High	Kevin Spain (Elverado School District)
Review and strengthen current HazMat safety plans	Medium-High	SIAA, SIU



# Mitigation Strategies Highlights

## Extreme Heat

Strategy	Priority	Proposed By
Establish cooling centers for heat waves	Medium	Multiple
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	Medium	Benjamin Newman, SIU Chief of Police
monitor lake levels during drought, update emergency response plant when necessary.	Low	Scott Wilmouth, KRCCD
develop a water action plan, retrofit water supply systems, develop and enforce water use restrictions and burn ordinances during droughts	Medium	Laci Misselhorn, Campbell Hill



# Mitigation Strategies Highlights

## Winter Storms

Strategy	Priority	Proposed By
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.	Medium	Brian Manwaring, Murphysboro EMA
Apply for grants to purchase a new snow plow	High	Patricia Sherman, Vergennes
Review and update school closure and early release procedures	Medium	Multiple
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.	Medium	Orval Rowe, County EMA



# Mitigation Strategies Highlights

## Disease Outbreak

Strategy	Priority	Proposed By
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.	Medium	Ryan Hall, Carbondale EMA
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.	Medium	Ben Doan, DeSoto Police
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	Medium	Gary Shafer, SI Airport
Enhance reporting and contact tracing protocols. Develop/update plans for mass care situations.	Medium	Mary Beth Goff, Unity Point; Kevin Spain, Elverado



# Mitigation Strategies Highlights

## Other Hazards

Hazard	Strategy	Priority	Proposed By
Cyberattack	Develop and implement a multi-factor authentication platform to help mitigate possible cyberattacks.	Low	Ryan Hall (Carbondale EMA)
Power Outages	Equip essential facilities with backup generators, establish warming/cooling centers for public	Medium	Multiple
Sinkholes	Have maps/lists of buildings over underground mines and/or near karst bedrock	Medium	Multiple
Wildfires	Develop/enforce burn ordinances during droughts	High	Laci Misselhorn, Campbell Hill
Wildfires	Continue work with Forest Service and landowners to conduct prescribed burns	Medium	Scott Wilmouth, KRCCD



# Planning Team Discussion

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