Purpose

This Hazards Mitigation Plan (HMP) is intended to help guide Coles County and its municipalities over the next five years in their efforts to eliminate and/or minimize the impact of hazard events to critical facilities and community assets. The HMP will serve as a continually evolving guidebook that addresses the hazard issues identified within.

I. Hazards Introduction

Natural hazards, technological hazards, terrorism and bio-terrorism have the potential to impact citizens, property, the environment, and the economy of Coles County. Flooding, windstorms, tornados, severe thunderstorms, severe winter storms, earthquakes, hazardous materials accidents and incidents, disease and acts of terrorism could expose Coles County residents and businesses to the financial and emotional costs of recovering from a disaster. The risk associated with natural and man-made hazards increases as more people inhabit areas that potentially could be affected by a disaster. The inevitability of natural and man-made hazards creates an urgent need to develop strategies, coordinate resources, and increase public awareness to reduce risk and prevent loss from future disaster related events. Identifying risks posed by natural and man-made hazards and developing strategies to reduce the impact of a hazard event can assist in protecting life and property of citizens and communities. Local committees such as the Coles County Hazards Mitigation Planning (HMP) Committee which is composed of members of the community representing a variety of groups, organizations and disciplines can work together to address the potential impacts of hazard events.

A. FIRE

Residential fires can be started by either natural or manmade causes. Prolonged warm winds can increase fire risks. Sparks and embers are carried by winds, escalating fire spread, Dryness and the combination of brush and/or crops create a situation where large land areas adjacent to the City can be exposed to fires. Hazardous substance explosion, vehicular accidents, smoking, and any number of other activities are possibilities that can contribute to fires.

B. EARTHQUAKES

Earthquakes are created by tectonic movement of the earth's crust. The theory of plate tectonics, introduced in 1967, holds that the Earth's curst is broken into several major plates. These rigid 50- to 60- mile thick plates move slowly and continuously over the interior of the earth, meeting in some areas and separating in others. This movement is manifested as localized ground shaking and/or soil liquefaction. After the initial seismic event, tremors or aftershocks can occur for an extended period of time resulting in additional structural damage to buildings and public facilities, as well as additional injuries and deaths.

C. WEATHER

1. SEVERE THUNDERSTORM

The typical “thunderstorm season” occurs from March to October annually. However, the central United States provides optimal conditions for thunderstorm development, which can occur during any month of the year when conditions are favorable. Severe thunderstorms produce damaging winds, damaging hail, lightning, flooding and occasional tornadoes. The typical thunderstorm is 15 miles in diameter and lasts an average of 30 minutes and is accompanied by lightning which averages more than 11cloud to ground strikes per square mile. Of the estimated 100,000 thunderstorms a year in the United States, only 10 percent are classified as severe.

2. HAIL STORM

A hail storm is just a part of a severe thunderstorm and forms in Cumulonimbus clouds. These clouds contain vast amounts of energy in the form of updrafts and down drafts. Vertical winds can reach speeds over 176 kilometers (110 miles) per hour. Hail grows in the storm cloud’s main updraft, where most of the cloud is in the form of “super-cooled” water. The water remains a liquid even though its temperature is at or below 0 degrees Celsius (32 degrees Fahrenheit). At temperature higher than -40 degrees C (-40 degrees Fahrenheit) the “super-cooled” liquid needs something on which to freeze or it remains a liquid. Ice crystals, frozen raindrops, dust, and salt from the ocean are also present in the cloud. On collision, super-cooled water will freeze onto any of these hosts, thus creating new hailstones or enlarging those that already exist. Hail creates a great deal of damage to crops throughout the U.S. annually with damage totals into the hundred million dollar range.

3. TORNADO

The central portion of the United States has been designated “Tornado Alley.” This is the area of maximum tornado frequency in the world, approximately 1100 per year. Of the central United States, Illinois ranks eighth in tornado frequency and first in tornado deaths. Tornados are frequently accompanied by hail, severe thunderstorms, lightning, and damaging winds.

4. FLOOD/FLASH FLOODING

Flooding is a major event affecting human life and property due to encroachment of man on the floodplains. Flooding of rural areas brings damage to agricultural areas. Damage of personal belongings due to flooding is ranked high during years of frequent rainfall. Flash flooding can occur when a large amount of rain falls over a small area over a short period of time.

5. DROUGHT

Droughts occur when a long period passes without substantial rainfall. A heat wave combined with a drought is a very dangerous situation. All areas in the United States are at risk of drought at during any time of the year.

6. EXTREME TEMPERATURES

Annually approximately 74 deaths are attributed to heat nation wide, and 18 deaths are attributed to cold. Extreme cold waves are associated with high death tolls. Prepare for possible isolation in your home by having sufficient heating fuel as regular fuel sources may be cut off. Extreme heat is when "Temperatures… hover 10 degrees or more above the average high temperature for the region and last for several weeks are defined as extreme heat. Humid or muggy conditions, which add to the discomfort of high temperatures, occur when a "dome" of high atmospheric pressure traps hazy, damp air near the ground. Excessively dry and hot conditions can provoke dust storms and low visibility. (http://www.fema.gov/hazards/extremeheat/heat.shtm).

7. WINTER STORM

Illinois is known for a contrast of seasons. Winters can be quite brutal with blizzards, extreme cold, ice storms, strong winds and heavy snow. These winter conditions can affect people, their activities and infrastructure. These incidents include large accumulations of snow, which occur in short periods of time. When this happens, it impairs people's ability to commute efficiently and in a timely manner. Food or other necessary supplies such as medicine may become difficult to obtain which can cause severe problems.

D. EPIDEMICS-DISEASE

Disease or Epidemics include medical, health, or sanitation events (such as contamination, plagues, and insect infestation) which pose a threat to the general public. Recent medical advancements in the field of vaccines and programs have provided low-cost vaccinations, epidemics and disease control have increased the containment time of an epidemic. The exception being diseases for which no serums have yet been developed. In such cases the toll on human life could be catastrophic nation-wide. Even with increased technology in insecticides, infestation probabilities could be critical due to time constraints in applying insecticides and restrictions on who can apply them.

E. PUBLIC TRANSPORTATION

1. HAZARDOUS MATERIALS ACCIDENT

A hazardous materials transportation accident occurs when chemical or biological substances that present danger to the public health or safety are released either during rail or highway transportation or handling. Spills or releases of hazardous materials during transport are common. Common transportation devices include trains and 18-wheel semi-trucks. On average approximately 30 trains go through residential, commercial, industrial, and rural areas per day and of that more than half are carrying hazardous materials. Approximately 75 facilities report storage of hazardous materials along our nations highly populated traffic routes. Thirty-three of the facilities report storing EHS (extremely hazardous substance) such as anhydrous ammonia, chlorine, or others.

F. PUBLIC UTILITIES

1. COMMUNICATIONS FAILURE

The widespread breakdown or disruption of normal communication capabilities could include major telephone outages, loss of local government radio facilities, or long-term interruption of electronic broadcast services. Communication in times of emergency is critical and Emergency Dispatch Centers are in place to provide dispatching services to surrounding areas. Many obtain portable encoders to page emergency responders from a mobile command unit. ESDA provides personnel to man call boxes during an outage. Information is then taken and relayed to the 911 Center.

2. PIPELINE FAILURE OR BREECH

Pipelines are constructed with specific wall thicknesses based on pressure in the line and the allowable hoop stress levels for the material. Allowable stress levels for gas pipelines vary and are based on the location of the pipeline and regulated by the U.S. Department of Transportation. Causes of pipeline failure are mechanical damage (caused by excavation or handling during construction), incomplete fusion, external or internal corrosion, material defects, and fatigue cracks.

3. DAM FAILURE

Dam failures are of particular concern because the failure of a large dam has the potential to cause more death and destruction than the failure of any other man-made structure. The destructive power of the flood being released by the sudden collapse of a large dam could be fatal to people and property near the area. A common cause of dam failures is overtopping of embankment dams due to inadequate spillway discharge capacity to pass flood waters. This could happen at anytime if spillway construction is too small and flood waters rise over the dam wall. In areas with a dire need of water this could be potentially life threatening due to a large depletion of fresh water.

4. POWER FAILURE

Power failure would involve long term, or widespread loss, or reduction of electrical service due to disruption of power generation or transmission that could have an adverse affect on the maintenance of life and the preservation of property. The increased dependence on electricity especially by the elderly and those requiring special care increases the vulnerability. Power failures provide a significant hazard for at-risk populations and can be critical to the general population as well during periods of extreme weather conditions. Power failures can be disruptive to provision of critical services without backup power generating sources.

G. MISCELLANEOUS

1. TERRORISM

The Federal Bureau of Investigation defines terrorism as “The unlawful use of force or violence committed by a group or individual against persons or property to intimidate or coerce a government, the civilian population, or any segment thereof; in furtherance of political or social objectives.” Terrorism includes acts such as bomb threats, sabotage, hijacking, or armed

insurrection, which threatens life or property. Such activities can be the result of political, criminal, or pathological motivation. A significant portion of the population could be affected by a terrorism act, especially schools, churches, hospitals, factories, and other areas where larger numbers of people are located. Events such as the World Trade Center attack in New York, the Murrah Federal Building bombing in Oklahoma City, and the increased occurrence of school shootings have increased awareness in this type of disaster. Copycat events to these occurrences are a possibility in this age of increased social and economic pressures, and dissatisfaction with government organizations.

2. CIVIL DISTURBANCE

A civil disorder is defined as any incident intended to disrupt community affairs and threaten the public safety. Civil disorders include: riots, mob violence, and any demonstration resulting in police intervention and arrests. Such events usually occur in large metropolitan areas.

3. NUCLEAR ACCIDENTS

Nuclear power plants use the heat generated from nuclear fission in a contained environment to convert water to steam, which powers generators to produce electricity. Although the construction and operation of these facilities are closely monitored and regulated by the Nuclear Regulatory Commission (NRC), accidents are possible. An accident could result in dangerous levels of radiation that could affect the health and safety of the public living near the nuclear power plant.

The potential danger from an accident at a nuclear power plant is exposure to radiation. This exposure could come from the release of radioactive material from the plant into the environment, usually characterized by a plume (cloud-like formation) of radioactive gases and particles. The major hazards to people in the vicinity of the plume are radiation exposure to the body from the cloud and particles deposited on the ground, inhalation of radioactive materials, and ingestion of radioactive materials.

Radioactive materials are composed of atoms that are unstable. An unstable atom gives off its excess energy until it becomes stable. The energy emitted is radiation. Each of us is exposed to radiation daily from natural sources, including the Sun and the Earth. Small traces of radiation are present in food and water. Radiation also is released from man-made sources such as X-ray machines, television sets, and microwave ovens. Radiation has a cumulative effect. The longer a person is exposed to radiation, the greater the effect. A high exposure to radiation can cause serious illness or death.

Of particular concern to note is that I-57 is a major transportation route and the transportation of radioactive materials in likely to occur through Coles County.

Although the risk of a chemical accident is slight, knowing how to handle these products and how to react during an emergency can reduce the risk of injury.

II. Community Profile

This section includes a brief history of the community's developments and a summary of existing plans and ordinances. The section includes information for the County as well as Charleston, Lerna, Mattoon, and Oakland.

A. BACKGROUND

Coles County is one of 102 counties in Illinois and is centered at Latitude: 39.50763 Longitude: -88.25938 at an altitude of approximately 695 feet above sea-level. Coles County is located in the East-Central part of the State. The county encompasses approximately 510 square miles, of which nearly 508 square miles are land areas with the remaining areas are water covered. The County is served by a number of major highways. I-57 runs through the central portion of the County and serves as a traffic route from Chicago to the 'Boot-heel' of Missouri. U.S. 45 and State Highway 130 are two other north/south routes. State Highway 133, State Highway 16 and State Highway 121 run in an east/west direction. Coles County is bordered on the north by Douglas County, on the east by Edgar and Clark Counties, on the south by Cumberland and Clark Counties and on the west by Moultrie and Shelby Counties. The county lies in State House Districts 101 and 106, State Senate Districts 51 and 53, and U.S. Congressional District 19.

Coles County, originally a part of Crawford County, was organized in 1831, and named in honor of Gov. Edward Coles. Coles County contains a number of major rivers/streams and watersheds. The Kaskaskia River runs through the northwestern part of the county, but the principal stream is the Embarras (Embraw) River which runs through the eastern portion of the county and is the primary source of water for Lake Charleston. The City of Charleston is either immediately adjacent to or lies within the flood plains of Riley Creek (Town Branch) and the Embarras River. Much of the southern portion of Mattoon falls within the Kickapoo Creek flood plain; while portions of Oakland are in the Hog Branch of the Embarras. There are five active watersheds in Coles County: Embarrass, Hurricane, Kaskaskia, Oakland and the Wabash.

Figure 1 illustrates Coles County and its major geographical features.

B. POPULATION AND HOUSING

Prior to 1820, there were no permanent settlements in Coles County. This was partly because the treaty with the local Native American tribes relinquishing their land was not completed until 1818. After this, many pioneers migrated through Coles County, because it was close to one of the routes West from Indiana and Kentucky. The route normally passed fifty miles to the South of Charleston, but because of frequent flooding on the Embarrass River, the pioneers were forced to cross just south of Charleston. Many of the first settlers set up homes in the timberland of the Eastern part of the County. These settlers came from the South via the Ohio and Wabash river valleys. Later migrants settled in the Western and Northern part of the County and were of a more Eastern and New England stock.

Fig. 1

By 1830, the area had grown considerably and requests were made to the State Legislature for establishment of County Government offices to better serve the residents. Coles County was established on Christmas Day, 1830; and was named for Edward Coles, Governor of Illinois in 1822. The County had a population of 9,615 persons by 1840. Fifteen years later, this figure had grown to 25,235 persons. The large jump in population can be attributed to the establishment of the North-South and East-West railroads.

According to the 2000 Census, there were 53,196 people, 21,043 households, and 12,078 families residing in the county. The population density was 105 per square mile^2. There were 22,768 housing units at an average density of 45 per square mile. The racial makeup of the county was 95.37% White, 2.28% African American, 0.20% Native American, 0.79% Asian, 0.05% Pacific Islander, 0.41% from other races, and 0.90% from two or more races. 1.39% of the population were Hispanic or Latino of any race.

Charleston has a 2000 population of 21,039, which includes over 10,000 students attending Eastern Illinois University. The University has dorm and apartment accommodations to house approximately 5500 students on campus. Mattoon is home for 18,291 persons; while the City of Oakland and Lerna Village have populations of 996 and 322 respectively. Two additional incorporated communities are located in Coles County. These are the Villages of Ashmore (809 persons) and Humboldt (481 persons). Though a part of Coles County, and some information contained in this document will reflect them specifically, these two communities chose not to participate in this planning process.

The Population Table below illustrates the population trends for the County over the past 130 years.

TABLE 1. POPULATION

Year	Coles County	Charleston	Mattoon	Oakland	Lerna
1870	25,235	2,849	N/A		
1880	27,042	2,867	N/A		
1890	30,093	4,135	N/A		
1900	34,146	5,488	N/A		
1910	34,517	5,884	N/A		
1920	35,108	6,615	N/A		
1930	37,315	8,012	N/A		
1940	38,470	8,197	N/A		
1950	40,328	9,164	N/A		
1960	42,860	10,505	19,088		
1970	47,846	16,421	19,681		
1980	52,260	19,355	19,055	1035	386
1990	51,644	20,398	18,441	996	301
2000	53,196	21,039	18,291	996	322

Source: U. S. Bureau of the Census

Homes in Charleston and Mattoon range from newly constructed houses in spacious and well planned developments to genteel, 150 year old two-story residences located along shady, tree-lined streets; from compact and cozy ranches in friendly subdivisions to multi-bedroom executive homes in exclusive neighborhoods and to many varieties in between. Apartments and other rental properties, some designed for senior citizens are also available in Charleston and Mattoon. The same diversity is found in the smaller communities and rural areas of the county with newly constructed homes, an occasional rural subdivision, apartments and farmsteads mingling with older, long established homes and farms. Mobile home parks are found in Ashmore, Charleston, Humboldt and Mattoon as well as in a few other rural locations. Other mobile homes established prior to building and zoning codes or in areas lacking building and zoning restrictions can be found scattered throughout the county. Table 2 below illustrates the recent housing trends in Coles County.

TABLE 2. COLES COUNTY HOUSING UNITS

Coles County	Total Housing Units	Total Occupied Units	Owner Occupied	Renter Occupied	Vacant Units
1960	N/A	N/A	7,622	3,816	N/A
1970	N/A	N/A	8,136	4,432	N/A
1980	20,078	19,935	12,431	6,186	143
1990	20,329	18,957	12,256	6,701	1,372
2000	22,768	21,043	13,028	8,015	1,725

Source: U. S. Bureau of the Census

C. CLIMATE

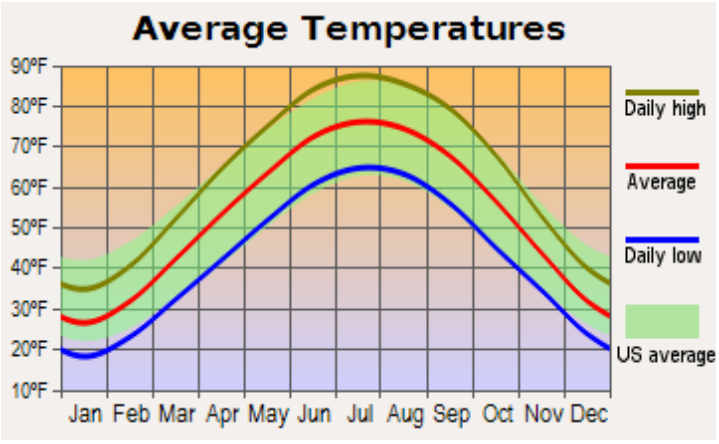
Climate conditions have effects on human health and safety. Illinois experienced two of its most deadly heat waves during the 1990s. The 1995 heat wave, the deadliest on record, accounted for 753 Illinois deaths. Annually, deaths attributed to extreme heat and cold far exceed deaths due to tornadoes, lightning, and floods.

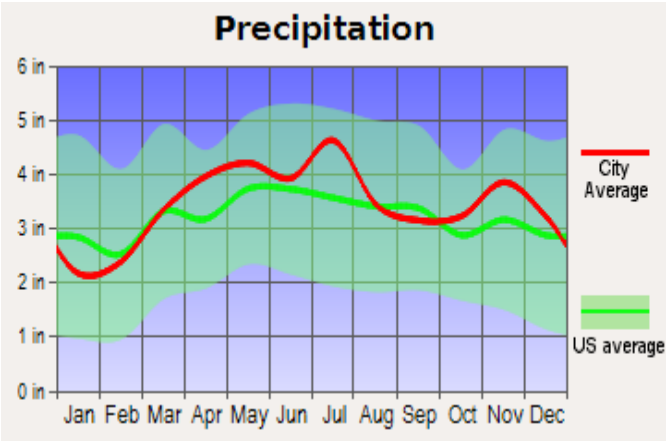
Flooding is the single most damaging weather hazard in Illinois. Ever-increasing heavy precipitation since the 1940s has led to increased flood peaks on Illinois Rivers. Flood losses in Illinois, $257 million annually since 1983, are the third highest in the nation. Within Illinois and the Midwest, flood losses have been increasing at a greater rate than elsewhere in the nation. Over a 45-year period (1955-1999), Illinois had $5.195 billion in flood losses, and 74 % of the losses have occurred since 1985. According to the National Flood Insurance Program Report (12/01/2005), Coles County flood losses totaled $147,848 from 1978 to 2005. Charleston recorded 8 losses and Mattoon recorded 26 losses during the period. Mattoon and Charleston have been the target of repeated flooding throughout the past Century. Perhaps the worst of the flooding occurred in June of 1998 and May of 2002 when areas of Mattoon were declared State Disaster Areas. Between April 11 and May 9, of that year Mattoon recorded 12.32 inches of rain, or 302 percent of normal.

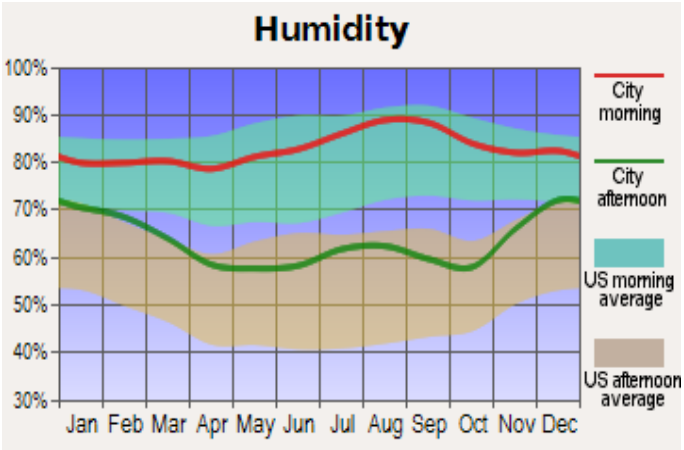
Illinois experiences about 29 tornadoes annually. Peak months are April through June (63 percent of the total), but tornadoes have occurred in all months. Although Illinois averages four tornado-related fatalities per year, the number varies widely from year to year. The Mattoon and Charleston tornado in 1917 was the thirteenth deadliest in United States History, killing 53 in Mattoon and 38 in Charleston, with 409 injured in Mattoon and 182 injured in Charleston. Illinois has experienced three of the top 25 deadliest tornadoes in United States history. According to the National Climatic Data Center approximately 58 tornadoes have struck in Coles County since 1958. Another killer tornado struck Lake Mattoon on August 21, 1977. The first killer tornado in Illinois during the month of August took the lives of 6 vacationers at Lake Mattoon. The tornado was embedded in heavy rain, making visual identification difficult.

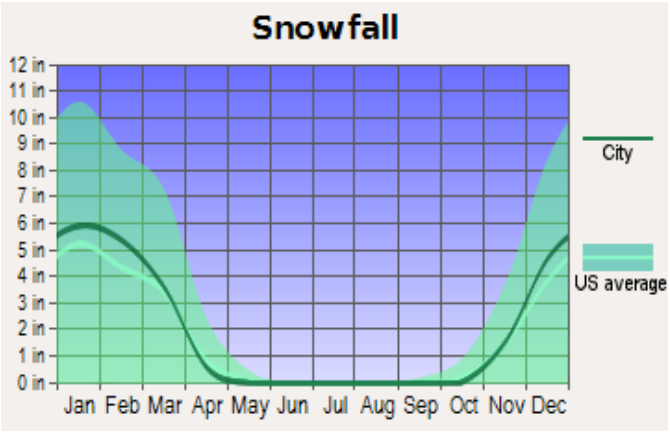
Thunderstorms account for 50-60 percent of annual precipitation and are quite common in Illinois. Nearly half of all thunderstorms occur during the June-August period. Most thunderstorms are accompanied by lightning which averages more than 11 cloud to ground strikes per square mile. Some thunderstorms produce hail with the average hail-days being 3.3 in the southern part of the state.

The following graphs (**Table 3**) depict seasonal averages for Coles County based on data reported by over 4,000 weather stations.









D. LAND USE

1. COMPREHENSIVE PLANNING EFFORTS

a) Coles County Comprehensive Planning Process:

As of February 2000, the Coles County Strategic plan has been completed, which could lead to the development of a County-wide Comprehensive Plan. In February 2005 a county-wide comprehensive planning process was initiated. A Citizen's Steering Committee has been appointed by the County Board and has been given the task, with the assistance of the Regional Planning Commission staff, to develop a draft Plan for the Board to review and adopt. The Coles County Comprehensive Plan addresses such issues as land use, transportation and infrastructure, housing, open space and recreation. The Coles County Board adopted the Comprehensive Plan on November 14, 2006.

b) Charleston Comprehensive Plan:

The Comprehensive Plan for the City of Charleston serves as a general framework for guiding the future development of Charleston. The document outlines a series of goals and recommendations for several different aspects of planning and development.

The core of the plan is a community-wide vision which is based upon a community participation process, an active steering committee and the guidance of elected and appointed officials. The Vision Statement taken from *Charleston Tomorrow* serves as the basis for the overall vision and missions. Issue identification is important for showing that the plan addresses the needs and concerns of the Charleston community. The plan strikes three major areas in the City of Charleston, which are, Urban Services Area, Civic Business District and Eastern Illinois University Land Use.

The Land Use of Eastern Illinois University can and will directly affect the City's Land Use Plan. When expansion occurs, open communication efforts between EIU and the city will bring awareness to a high level for future plans.

c) Cooperative Planning Efforts:

As of March 2006, the City of Charleston has initiated the process to update its Comprehensive Plan with the intent of coordinating its efforts with the County Comprehensive Planning process, Mattoon's Comprehensive Plan development project, and Oakland's Land Use Analysis / Update project.

d) Zoning & Building Codes

While much of the emphasis of this plan is on flood mitigation, the consideration of other natural hazards is equally important. Potential damages due to wind, tornadoes, and ice storms should also be explored. The Illinois Emergency Management Agency has successfully worked with the Central Illinois communities to implement building codes and other construction practices that can minimize damages that can result from high winds and from ice storms.

Charleston has adopted both zoning ordinances and building code regulations. The Charleston Department of Building and Development Services currently utilizes the Unified Development Code. In accordance with 65 ILCS, and the City's adopted Comprehensive Plan, the purpose of this Code is to: promote public health, safety, comfort, order and general welfare; conserve and protect property values; protect private property rights; promote orderly development and use of land and natural resources; protect the quality and quantity of prime agricultural land; facilitate safe and economical provision of streets, water, wastewater disposal, schools, parks and other public requirements; and regulate the density of population, the location and use of buildings, structures and land for trade, industry, residence or other purposes.

The Mattoon Code Enforcement Office is primarily responsible for the enforcement of the following ordinances and codes:

Mattoon Subdivision Ordinance
Mattoon Zoning Ordinance
Mattoon Floodplain Ordinance
International Building Code - 2003
International Maintenance Code - 2003
International Fire Code - 2003
International Residential Code- 2003
International Mechanical Code - 2003
NFPA National Electrical Code - 2005
Mattoon Electrical Code Ordinance
State of Illinois Plumbing Code
Illinois Accessibility Code - 1997 edition
Mattoon Sign Ordinance
Mattoon Corridor Development Ordinance

2. ECONOMIC DEVELOPMENT

By the late 1800's, Coles County had established itself as an agricultural county. Although corn was the most important crop, broomcorn, used to make brooms was introduced into the County in 1870. Broomcorn factories were built in Humboldt, Mattoon, and Charleston to process the crop.

Retail development centers have been initiated on the east sides of both Charleston and Mattoon while older downtown business areas have experienced some decline and are being revitalized in the hopes of attracting new businesses or development. Both cities have long established industrial development areas with new industrial parks currently under development. Mattoon is developing a new 66 acre industrial site north of the city on Route 45 near the planned Interstate 57 interchange which is currently under construction. Charleston is developing the 120 acre Coles Business Park located on the northeast corner of Route 16 and the Loxa Road and the Northwest Business Park in Charleston is under private development.

Today, most of Coles County workers are employed in industry, services and agricultural related services. Combined, the cities of Mattoon and Charleston are home to over 20 non-retail major employers in the fields of manufacturing and business firms. Among the most

important are Eastern Illinois University who employs just over 1,800 and R.R. Donnelley and Sons Co. who employs 1,600 employees.

Coles County is located on I-57, which directly feeds to Interstates I-70, I-80, I-64, I-72, I-74, I-24 and I-55. At the heart of the Midwest transportation web, Coles County is in close proximity to half of the U.S. population and 65% of the nation's manufacturing region. Some of the major employers in the County are Eastern Illinois University, R &R Donnelley and Sons, SBLHC, and Illinois Consolidated. The Eastern Illinois Railroad and the Canadian National Rail line serve many industrial sites in Coles County. This choice provides competitive advantages to rail users. Table 4 below identifies the major employers in Coles County who employ more than 150 employees.

The average value of farmland in Coles County is $2,373/acre or a total of $610 million countywide. In 1998 the total cash receipts from farming totaled approximately $70 million. In 1999, this figure suffered a substantial decline to approximately $58 million. Flooding could significantly impact agricultural outcome in the County. Other factors which could have had an impact on cash receipts are declining interest rates and a long-term declining trend in commodity prices. Coles County appears to have a high probability rate of flooding, which may have influenced the decline in numbers. Any decline in farm income could directly affect Charleston's economic status.

TABLE 4. MAJOR COLES COUNTY EMPLOYERS

Employer	Location	Employees	Product/Service
Eastern Illinois University	Charleston	1839	University
R.R. Donnelley & Sons Co.	Mattoon	1600	Printing/Publishing
Sarah Bush Lincoln Health Center	Mattoon	1273	Hospital/Clinics
Illinois Consolidated Telephone Co.	Mattoon/Charleston	400	Telecommunications
Lenders Bagel Bakery	Mattoon	370	Bagel Bakery
Ampad Corporation	Mattoon	357	School/Business Supplies
General Electric	Mattoon	275	Lighting Products
Lake Land College	Mattoon	263	Community College
Justrite Manufacturing Co., Inc.	Mattoon	189	Safety Containers
Master Foods USA	Mattoon	185	Pet Foods
Vesuvius U.S.A.	Charleston	175	Ceramic Fittings

3. AGRICULTURE

As of 2002, Coles County had a total of 261,138 acres of farmland. The average value of farmland in Coles County is $2,373/acre or a total of $610 million countywide. In 2002 the total cash receipts from farming totaled approximately $61 million. Flooding is a significant hazard in the County and could significantly impact agricultural outcome. Coles County appears to have a high probability rate of flooding, which may have influenced the decline in numbers. Any decline in farm income could directly affect the County's economic status.

The chief resource of the people of Coles County is agriculture. Of the approximately 325,000 plus acres in Coles County, over 270,000 acres are farm land; of these, there are approximately 180 farms of more than 500 acres.

Coles County crop yields per acre were above the state averages for corn, soybeans, wheat, and oats in 2001. Only 4% of the land surface is currently forested. Charleston is the largest city in the county and Mattoon is the second largest (counting Eastern Illinois University students as residents). The county had 27% of workforce occupations in management and professional occupations, 25% in sales, 18% in services, 20% in manufacturing and transportation, 9% in construction, and 0.5% in agriculture in 2000.

The State has provisions to reduce soil loss to a tolerable level because it does not regenerate itself. Also, the federal farm bill requires that a person develop a plan on how to reduce land and soil loss if they live on a highly erodable land area.

TABLE 5. COLES COUNTY LAND COVER

LAND COVER CATEGORY	County Area		Percent	
	Acres	Sq. Mi.	of County	of State
AGRICULTURAL LAND	**271226**	**423.8**	**83.1**	**1**
Corn	128469	200.7	39.3	1.1
Soybean	110759	173.1	33.9	1.1
Winter Wheat	985	1.5	0.3	0.3
Other Small Grains and Hay	931	1.5	0.3	0.3
Winter Wheat/Soybeans, Double Cropped	4268	6.7	1.3	0.7
Other Agriculture	681	1.1	0.2	0.5
Rural Grassland	25133	39.3	7.7	0.6
FORESTED LAND	**31265**	**48.9**	**9.6**	**0.8**
Upland	26923	42.1	8.2	0.8
Partial Forest/Savanna Upland	4305	6.7	1.3	0.7
Coniferous	37	0.1	<0.1	<0.1
URBAN AND BUILT-UP LAND	**12333**	**19.3**	**3.8**	**0.5**
High Density	5560	8.7	1.7	0.9
Low/Medium Density	4696	7.3	1.4	0.5

Urban Open Space	2076	3.2	0.6	0.3
WETLAND	**9770**	**15.3**	**3**	**0.7**
Shallow Marsh/ Wet Meadow	1175	1.8	0.4	1.3
Deep Marsh	216	0.3	0.1	0.5
Seasonally/Temporarily Flooded	525	0.8	0.2	0.5
Floodplain Forest	7299	11.4	2.2	0.7
Swamp	<1	<0.1	<0.1	<0.1
Shallow Water	555	0.9	0.2	1.4
OTHER	**1909**	**3**	**0.6**	**0.3**
Surface Water	1557	2.4	0.5	0.3
Barren and Exposed Land	238	0.4	0.1	0.6
Clouds	<1	<0.1	<0.1	<0.1
Cloud Shadows	113	0.2	<0.1	2.8
TOTALS	**326503**	**510.2**	**100**	**0.9**

III. Planning Process

The Coles County Board is the governing body with primary responsibility for implementing HMP recommendation in the unincorporated areas of the County. The individual City Councils and Village Boards have like responsibilities within their respective jurisdictions. Coles County, the Cities of Charleston, Mattoon, Oakland and the Village of Lerna recognize that community involvement is an essential step in developing a mitigation plan, and all entities have involved their local communities in the mitigation planning process to help ensure the final plan reflects the values and needs of all residents, as well as building the support base necessary to implement the Plan. Public involvement was solicited at public meetings and through media reports and has provided valuable historical knowledge about the communities and has enhanced the completeness and accuracy of the Plan.

The Coles County Board in cooperation with the other Planning Partners appointed a Hazard Mitigation Planning Committee (HMP) to assist with the development of this Plan. The Committee consists of representatives from each participating community and the County. Specifically, the Committee members represent the local Emergency Management Agency, local fire protection districts and/or local fire departments, local law enforcement agencies, community planning offices & building officials, community health officials, locally elected officials, medical & healthcare facilities, business and industrial representatives, and various public or other stakeholders.

Coles County HMP Committee Members:

Kyle Gill, Chairperson	City of Mattoon Building Dept.
Darrel Cox, Chair Pro-Tem	Coles County Sheriff's Office
Mike Chism	Mattoon Fire Department
Jeff Finley	Charleston Planning Dept.
Angela Griffin	Coles Together (Business and Industrial Sector)
Dave Griffith	Mattoon Police Department
Gary Hanebrink	Eastern Illinois University
Sharon Houchin	City of Oakland, Mayor
John Hurst	Coles County Board
Randy Irvin	Lake Land College Police Dept.
Christina Miller	Public / Resident
Don Pearcy	Village of Lerna, President
Mark Phelan	Coles County Farm Bureau
Kris Phipps	Charleston Fire Department
Shirley Sherwood	SBLHC
Jeff Standard	Oakland Fire Protection District
Dan Stretch	Coles County Health Dept.
Rick Johnson	Coles County Engineer
Tom Watson	Coles County EMA
Denny Wilson	Lincoln Fire Protection Dist.

The primary effort for the development of the Plan was lead by the CCRP&DC staff in close cooperation with the Coles County EMA. The composition of the Committee was developed to ensure significant public input. The Committee Members kept their respective entities informed on the status of the HMP through verbal reports at regularly scheduled meetings. All meetings were open to the public and were verbally noted at the monthly Regional Planning Commission

meetings (which are regularly attended by members from the general public and media) as well as posting notices in various locations (i.e. Coles County Courthouse). All local participants were represented by at least one representative member at each of the Committee meetings.

Between the end of 2005 and submission of the draft HMP to IEMA in June 2007, the Committee held a total of 12 meetings both as a full Committee and sub-committee(s). At the initial meeting CCRP&DC Staff outlined and discussed the process of the planning project: the joint effort of the participants, the IEMA/FEMA Grant program and matching fund requirements, the development of the Committee and the cooperation between this Committee and the County's Local Emergency Planning Committee (LEPC) Planning process, as well as the anticipated timeframe for the project and the adoption process by the local entities.

The Committee Members met as a full committee and as sub-committees and were responsible for developing data relevant to the plan, identifying critical facilities and community assets, participating in the hazards analysis process, and helping develop mitigation goals. The Committee reviewed and revised the various sections of the Plan as drafted and presented by staff; as well as approved said sections once edited accordingly

Additionally, the HMP Committee met periodically with LEPC to share information and to coordinate the local hazards planning efforts. These joint meetings occurred quarterly and proved beneficial to both groups as much of the information was shared and an avoidance of duplication of efforts was seen. Additionally, this partnership allowed the Committee, through the EMA, to benefit from other counties and evaluate their mitigation planning efforts and/or their implementation efforts (i.e. Citizens CORE). This effort was conducted through conversations and meeting between the Coles County EMA Coordinator and various members of the Region 9 and IEMA staff at the Regional EMA meetings in Flora, IL. The counties in Region 9 are Clark, Clay, Coles, Crawford, Cumberland, Edwards, Effingham, Fayette, Jasper, Jefferson, Lawrence, Marion, Moultrie, Richland, Shelby, Wabash and Wayne.

As noted above, the development of the HMP was a combined effort between the CCRP&DC staff, the Coles County EMA and the individual committee members. The general practice involved staff and members collecting information pertaining to specific sections. Furthermore, staff utilized other HMP's from other regions in the state and country, particularly, the State of Illinois HMP for prioritization methods and risk analysis and the IEMA web site for information on hazards analysis, goals and mitigation efforts. Further, staff reviewed and used various components from the following HMPs: Winnebago County, IL; Washtenaw County, MI; Lane County, OR; Long Beach, CA; Humboldt County CA; and the Louisiana State Plan. This information was shared with and reviewed by the Committee, then incorporated into the HMP.

Concurrently, the CCRP&DC staff was in the process of developing the Coles County Comprehensive Land Use Plan, this afforded staff and thus both Planning Committees the opportunity to share information and collaborate the planning efforts.

The final draft was reviewed in its entirety and approved by the Committee and forwarded to the IEMA for review. Once the HMP was approved by IEMA the document was recommended by the HMP Committee to the local municipalities and the County Board who held public hearings. Following these hearings, the individual bodies adopted and jointly implemented the HMP. The Plan is intended to help guide Coles County and its municipalities over the next five years in their efforts to eliminate and/or minimize the impact of hazard events to critical facilities and community assets.

IV. Community Assets

A. CRITICAL FACILITIES

A Critical Facility is defined as: A facility which provides a service or services including, but not limited to water and sewage treatment, electrical services, law enforcement, fire protection, communication infrastructure, schools and medical assistance; that if interrupted would cause or be an eminent threat to lives and public health and safety if it was affected by a disaster. The County and its communities contain several of the above-mentioned facilities. Critical facilities are kept aware of weather advisories and/or hazardous driving conditions to help protect adults and children by whatever means necessary.

1. HEALTH CARE FACILITIES

The Communities in Coles County are served by two primary Health Care Centers: Sarah Bush Lincoln Health Center (SBHLC) and Carle Clinic. Both facilities are located near IL Rte. 16 between Charleston and Mattoon and are identified on Figures 7 and 21 respectfully.

a) Carle Clinic, located at 200 Lerna Road South, Mattoon, hosts health care provider services including primary care physicians and mid-level practitioners, as well as specialty care in a variety of areas.

b) SBLHC is a 200 beds, not-for-profit, and acute-care regional hospital employing approximately 1500. It is conveniently located on IL Rte.16 between Charleston and Mattoon, only eight miles from the EIU campus. As a secondary care facility, SBLHC provides a full range of services to residents of Coles and the surrounding six counties, including Lincolnland Home Health, Lincolnland Hospice, In Home Medical, Mobile Mammography, Dental Program, and Adult Day services. The Health Center's active and consulting medical staff includes 145 providers representing 28 specialties. Special services include a Regional Cancer Center, Behavioral Health Services, Women and Children's Services, Outpatient Surgery Center, Cardiac Catherization, and a full complement of Radiology and Laboratory services.

c) EIU Health Services: serves over 10,000 students, faculty and staff and works closely with Sarah Bush Lincoln Health Center. The Health Service hosts over 40,000 student visits per year.

Throughout the years, the Health Service has also played an important role in the Charleston community on more than one occasion. For example, the Health Service was instrumental in assisting with the influenza epidemic scare which occurred in 1977. The United States government recommended that all citizens be vaccinated for Swine flu, when an epidemic was expected that year. The Health Service volunteered its services and provided staff to administer the recommended immunization program. Several hundred students and Charleston residents were immunized in the Clinical Services building.

On another occasion in 1978, a severe blizzard in this area of the State of Illinois caused the closure of the highway between Charleston and Mattoon. Transportation,

by any means, to Sarah Bush Lincoln hospital was impossible. The services of the staff were again volunteered and the Health Service remained open 24 hours a day for three days, answering telephone calls, giving medical care as needed to members of the community, and making house calls to some isolated individuals needing insulin shots and medication.

2. EDUCATION

Charleston, Mattoon and Oakland are each served by individual community unit school districts (CUSD). CUSD #1 (Charleston), CUSD#2 (Mattoon) and CUSD #5 (Oakland) serve the respective communities and surrounding rural areas. The Village of Lerna is served by CUSD #1.

a) CUSD #1 maintains a high school, middle school and three elementary schools in the City of Charleston. Additionally, an elementary school is located in the Village of Ashmore while the Lerna School building has been leased to the Regional Office of Education for the Bridges program students. CUSD #1 leases transportation services from Laidlaw Inc. which operates a garage facility north of town on IL Rte.130.

b) CUSD #2 recently built two new elementary schools to educate its students. One in town school as well as the Humboldt School is leased to the Eastern Illinois Area of Special Education (EIASE) and used for their students. The Hawthorne School is home for the District's Armstrong Program (special education). Mattoon also maintains a high school and middle school as well as operating its own bus transportation system. This service is based at the garage facility on Piatt Ave. in Mattoon.

c) CUSD #5 operates one elementary school (approx. 220 kindergarten through 8th grade students enrolled) and one high school facility (approx. 120 students); both of which are located in the City limits. The District currently serves the City of Oakland, as well as the Villages of Borton, Hindsboro and Isabel, all located outside of Coles County. There have been discussions of consolidating CUSD # 5 with the Kansas Illinois School District and this proposal might include the construction of a new high school building.

d) Eastern Illinois University is home to more than 10,000 students, Eastern Illinois University (EIU) is well known not only for excellence in academics but also for top-notch sports and richness in culture. EIU, located in Charleston, is a comprehensive, state-assisted, regional service institution. It is primarily an undergraduate institution, with the youngest student body of all Illinois public universities, and the highest proportion of residential students of all public universities in the nation. EIU hosts a number of dorms and apartments which house approximately 5500 students on campus.

e) Lake Land College is home to 7,400 students from across East Central Illinois, Lake Land College (LLC) is a Public community college offering career programs that lead to immediate employment, transfer programs that lead to a baccalaureate degree, liberal arts, adult education, special job training and retraining programs.

Founded in 1966, the 308 - acre campus hosts nine major buildings plus six supportive buildings, two campus ponds, a 160 acre agriculture land laboratory, computer labs, CAD lab, child care lab, cosmetology clinic and a dental clinic. The library provides access to books, magazines and several electronic databases. LLC main campus is located at 5001 Lake Land Blvd. (U.S. Route 45), Mattoon, Illinois, near the junction of Interstate 57, exit 184 and U.S. Route 45.

In addition to the public school systems, Coles County is home for approximately ten private schools. These private education facilities provide a learning environment to students from pre-kindergarten through high school. The locations of all Coles County education centers can be found on Figures 2 through 23.

3. EMERGENCY RESPONSE SERVICES

a) Charleston Fire and Rescue is a progressive full-time career department. Employing a staff of 32 paid members, 30 of which work 24/48-hour shifts with two Command personnel, all cross-trained as FF-EMT's with 26 trained at the paramedic level. The Department is active in the community with fire prevention programs which includes a juvenile fire setters program and smoke detector and fire extinguisher training programs. National Fire Safety Council programs are provided to area schools and educational programs are provided during fire prevention week annually. A pre-fire planning program involves annual tours of nursing homes, industry and commercial businesses and the Department enforces a city-wide no burning ordinance.

Two fire stations are placed at opposite ends of town to provide optimal coverage for fire and medical response. The fire vehicle fleet consists of two frontline engines, an aerial and rescue truck. Two advanced Life Support ambulances are staffed 24/7 with a third ALS unit as back-up and staffed as needed. A typical fire response would include 10 personnel with 2 engines, an aerial apparatus and an ambulance. Paramedic personnel are trained in Advanced Cardiac Life Support (ACLS), Basic Trauma Life Support (BTLS at the paramedic level) and Pediatric Advanced Life Support (PALS). Training is extensive and on-going. Ambulances and equipment are State of Illinois certified. Charleston Fire and Rescue provides ambulance service to the City of Charleston and an area of approximately 200 square miles in eastern Coles County.

CFD has one of the State designated Regional Haz Mat Teams which were funded by Terrorism funds. It is a fully equipped HAZ-MAT unit with members from fire, law enforcement, EMA, and EIU.

b) The Mattoon Fire Department is a progressive full-time career department. Employing a staff of 38 paid members, 36 of which work 24/48-hour shifts with two Command personnel. The Department responds from three Stations, two within the City and one Station located at the County Airport near Sarah Bush Lincoln Health Center. The department's apparatus consists of; 3 front-line Engine Companies and one reserve Engine; one 100' Aerial; one Heavy Rescue Truck; one Light-duty Medical Response Unit; one Technical Rescue Support Vehicle; 2 Emergency Response Trailers; and 2 Command Vehicles. Department personnel are trained in several technical rescue disciplines including High-angle Rescue, Confined Space

Rescue, and Mass Casualty Incidents. The department's 37 Emergency Medical Technicians (EMTs) provide non-transport Emergency Medical Services to the community. Of the 37 EMTs, 7 are Licensed Paramedics.

Mitchell-Jerdan Funeral Home offers a full service ambulance department and 24-hour paramedic coverage seven days a week. Mitchell-Jerdan owns three fully equipped ambulances, two of which are manned 24/7 with the third as a backup staffed by call-in personnel, and covers the western half of Coles County.

Fig. 2

Fig. 3

Fig. 4

Fig. 5

Fig. 6

Fig. 7

Fig. 8

Fig. 9

Fig. 10

Fig. 11

Fig. 12

Fig. 13

Fig. 14

Fig. 15

Fig. 16

Fig. 17A

Fig. 17B

Fig. 18

Fig. 19

Fig. 20

Fig. 21

Fig. 22

Fig. 23

c) Fire Protection Districts (FPD)

i) Ashmore FPD is an all volunteer department housed in one station with 20 volunteers responding to the Village of Ashmore and Ashmore Township. The District operates the following equipment 2-Pumpers, 4-Tankers, 1-Brush truck.

ii) Cooks Mill FPD is an all volunteer department housed in one station with 25 volunteers responding to the Village of Cooks Mill and surrounding area. The District operates the following equipment .2-tankers, 1-utility truck, 1-pumper.

iii) Humboldt FPD is an all volunteer department housed in one station with 25 volunteers responding to the Village of Humboldt and surrounding areas. The District operates the following equipment 1-pumper, 1-tanker-pumper, 2-tankers.

iv) Hutton FPD is an all volunteer department housed in one station with 20 volunteers responding to the settlement area of Hutton and Hutton Township. The District operates the following equipment 2-pumper-tankers, 3-tankers, 1-brush truck.

v) Lincoln FPD is an all volunteer department housed in three stations (Charleston South, Lerna, Mattoon Twp) with 75 volunteers responding to all or portions of Mattoon Township, excluding the City of Mattoon, Pleasant Grove Township, LaFayette Township, and Charleston Township, excluding the City of Charleston. The District operates the following equipment 4-pumpers, 4-tankers, 2-brush trucks, 3-equipment trucks.

vi) Oakland FPD is an all volunteer department housed in one station with 25 volunteers responding to the City of Oakland and East Oakland Township. The District operates the following equipment 2-pumpers, 1-tanker, 1-equipment truck.

The Oakland FPD also operates one fully equipped ambulance which is manned on a call-in basis 24/7. The Oakland Ambulance serves the Oakland area and the Village of Brocton and portions of Douglas and Edgar counties.

vii) Seven Hickory / Morgan FPD is an all volunteer department housed in one station with 18 volunteers responding to Seven Hickory and Morgan Townships. The District operates the following equipment 2-pumper-tankers, 3-tankers, 1-brush truck.

viii) Wabash FPD is an all volunteer department housed in one station with 21 volunteers responding to Paradise Township. The District operates the following equipment 2-pumper, 1-tanker, and 1-pumper-tanker. (See Resource Manual for more details.)

Arcola, Toledo and Westfield (Clark County) Ambulance Services – response areas border on Coles County and the services may from time to time respond to Coles County areas in close proximity. These services also provide mutual aid assistance to Coles County services upon request. Each ambulance service maintains written mutual aid agreements with each other and other services in close proximity.

Fire Insurance Rating

The fire rating for the rural County is based on location and distance from adjacent City fire department facilities. Based on the water supply to the area, the amount of fire protection and the dispatch time a fire insurance rating is assigned. Each district is assigned separately, thus Coles County has more than one fire rating depending on the location in the county. A lower rating means the area is more fire safe. Insurance companies use this rating as a determinate when deciding insurance prices.

Ashmore	7/9*
Charleston	3
Cooks Mill FPD	8/9*
Humboldt FPD	6/9*
Hutton FPD	9
Lincoln FPD	7/9**
Mattoon	5
Oakland FPD	7/9*
Seven Hickory-Morgan	10
Wabash FPD	9

*The first number in the rating is the community and the last number is the rural township surrounding the community

** Areas located within 5 miles of a Lincoln FPD fire house have a rating of 7; areas located farther than 5 miles are rated at 9.

See figures 24 Fire Districts Map and 25 Ambulance Districts Map

d) The Coles County Emergency Management Agency (EMA) formerly the Coles County Emergency Services & Disaster Agency (ESDA) was created by a local ordinance. By state law, E.M.A. is a required County Department. The Charleston and Mattoon City Councils took steps to dissolve their respective ESDA (Emergency Services and Disaster Agency) operations in favor of bringing all countywide emergency management under the office of the Director of the Coles County E.M.A. The purpose of E.M.A. or E.S.D.A. is to mitigate potential hazards, plan for, coordinate, respond to and aid in recovery from all disaster situations whether natural or man-made. Regional Coordinators facilitate the efforts of local (county and municipal) Emergency Management Agencies and ESDAs, elected officials, response agencies, and voluntary organizations

Fig. 24

Fig. 25

e) The Charleston Police Department is responsible for the primary law enforcement duties within the incorporated boundaries of the City of Charleston with the exception of the Eastern Illinois University campus. The Department provides law enforcement services to the EIU campus through joint enforcement activities and mutual assistance agreements. Mutual assistance agreements are also in place with other county law enforcement agencies and the Department is a member of the ILEAS state-wide mutual aid organization. The Department serves a population of 21,039 (2000 census) and operates out of a Police Station located at 614 Sixth Street. The Department is comprised of thirty-four (34) employees and one (1) Police Chief. There are two (2) Deputy Chiefs, twenty-four (24) patrol officers, four detectives (4), one (1) drug enforcement officer, two (2) clerical staff, and one (1) parking enforcement person.

f) The Mattoon Police Department is a full-service law enforcement agency responsible for the primary law enforcement duties within the incorporated boundaries of the City of Mattoon with the exception of the Lake Land College campus. The Department provides law enforcement services to the Lake Land campus through joint enforcement activities and mutual assistance agreements. Mutual assistance agreements are also in place with other county law enforcement agencies and the Department is a member of the ILEAS state-wide mutual aid organization. The Department is administered by a Chief of Police and one Deputy Chief of Police, with a budget allowing for 40 sworn police officers and 13 support staff which includes dispatchers, clerks, and secretaries. Officers patrol 9.8 square miles within the corporate city limits, serving a population of 18,500. The Police Station and Dispatch Center is located at 1710 Wabash Avenue. The department conducts criminal investigations and sponsors and participates in public functions and public assistance programs throughout the community.

g) The City of Oakland Police Department consists of one full-time officer who serves as the Oakland Police Chief and three part-time patrol officers.

h) The Eastern Illinois University Police Department, located at the corner of 7th and Grant, provides service and protection to the campus community 24 hours a day, 365 days a year. The 25 person force of armed and commissioned police officers have full arrest power and are graduates of the Illinois Police Training Institute. All are trained in emergency response procedures, first aid, and firearms proficiency, and are provided continuing training opportunities to upgrade their skills.

i) The Lake Land College Department of Public Safety provides service-oriented functions to a college community of over 7,000 faculty, staff and students. The force consists of 5 fulltime and 8 part-time commissioned police officers who have completed a state certified police academy and have full police authority. At least one officer is on duty at all times, even when the college is closed. Officers are trained in first aid and CPR, hazardous materials, severe weather, and law enforcement response.

j) The Coles County Sheriff's Office is controlled by the Office of Sheriff, the chief law enforcement officer in the county. The position of sheriff is an elected position every

four years. By statutory or constitutional requirements, the sheriff is responsible for serving all warrants, civil process, orders and judgments issued by the court, as well as being the custodian of the county courthouse and jail. The sheriff, in person, or by his deputies, also attends all court proceedings. He or by his deputies, has powers to enforce laws within the entire county, but normally concentrates enforcement activities within the unincorporated areas having no other police presence. The sheriff's office comprises 28 full time sworn officers who work in various capacities, as well as 16 full time correctional officers who work in the county jail, as well as 6 clerical staff. 13 part time officers are utilized in various capacities on an as needed basis. Mutual aid agreements are in place with various local and surrounding agencies. The sheriff's office performs all of the functions of a city police department, participates in town meetings, employs a D.A.R.E officer that provides drug resistance education in the Charleston and Oakland public schools. The sheriff's office also participates in the East Central Illinois Drug Task Force, as well as the area tactical response team.

B. UTILITIES

1. ELECTRICAL POWER/NATURAL GAS

a) Coles-Moultrie Electric Cooperative

Coles-Moultrie Electric Cooperative (CMEC) has more than 9,500 members and an electrical distribution system stretching more than 1,900 miles, with a net utility plant value of more than $25,000,000. Members are served in Clark, Cumberland, Douglas, Edgar, Piatt and Shelby Counties in addition to the two original Counties of Moultrie and Coles. Electrical service is provided to more than 8,000 residential members, 850 small commercial members, and large commercial members such as Sarah Bush Lincoln Health Center (SBLHC), manufacturing facilities such as Mattoon Precision, Inc. and Mid-State Tank Company, plus educational facilities such as Lake Land College and the Williams School in Mattoon.

b) Ameren – CIPS

Ameren CIPS was founded in 1902 as the Central Illinois Public Service Company Inc. Ameren provides energy services to 1.5 million electric and 300,000 natural gas customers in more than 44,500 square miles in Illinois and Missouri. Ameren provides energy delivery services to 390,000 customers in 576 communities in Illinois and has in place a long-term power purchase agreement that will provide energy supply reliability. It is speculated that Ameren has approximately 25,000 customers in Coles County alone; however, Ameren has no generation facilities in Coles County.

c) Gas and Oil Storage and Transmission

Coles County is traversed by several gasoline, natural gas and ammonia transport lines. A 140 million gallon ammonia storage terminal is situated south of Lake Land College on Route 45. A large underground natural gas storage facility is situated southeast of Ashmore. See figures 26 and 27.

2. PUBLIC WATER SYSTEMS

a) Charleston Water Treatment is responsible for the purification and distribution of clean water throughout the City. The new Water Treatment Plant was completed and put into operation the first week of May, 2005. The new plant has the capacity to produce 4.5 million gallons of water per day. The current demand is 1.7 million gallons of water per day. The new plant is capable of producing water that exceeds all requirements of the Illinois Environmental Protection Agency. The new plant will also eliminate problems with odor and taste that occurred with the old water treatment facility.

Aerial View of New Charleston Water Plant

b) Mattoon Water Treatment is responsible for the purification and distribution of clean water throughout the City. The Plant is located near Lake Paradise and was built in 1999. The plant has a capacity to treat seven million gallons of water each day. Currently the Mattoon water supply provides 2.6 million gallons per day to the community. The plant is capable of producing water that exceeds all requirements of the Illinois Environmental Protection Agency.

Mattoon Water Plant

Fig. 26

Fig. 27

c) Oakland Water Works System provides water to residents via purchases from the Embarrass Area Water District. The Embarrass Water District obtains water from groundwater in the Mahomet Aquifer near Champaign. The Oakland Water Work System which serves approximately 996 persons, has a storage capacity of 100,000 gallons. The average daily demand is around 74,000 gallons with a peak demand of 105,000 gallons.

d) Lerna Waterworks System purchases treated water from the Clear Water Service Corporation to serve its approximately 320 residents.

e) Rural Water Services

i) EAWD : The Embarrass Area Water District (EAWD) was formed in 1997 to provide potable water to the rural residents in northern and eastern Coles County as well as residents in Douglas and Cumberland Counties. EAWD currently serves over 860 customers and is actively expanding its customer base. The District maintains two water towers, both located in Coles County. The first tower located in Seven Hickory Township holds 500,000 gallons, the second tower is located in Hutton Township and has a capacity of 100,000 gallons. EAWD maintains a second emergency connection point with Mattoon City as a backup source.

ii) CMWA: The Cooks Mill Water Association was formed in 1978 to provide rural residents of North Okaw Township with potable water. Currently the Association has 166 customers. The Association maintains three water wells which are located east of CR 500N. Located nearby is the treatment plant (sand filter/chlorination) which was constructed in 1978. The plant is capable of processing a peak flow of nearly 45,000 gallons per day. Average flow for CMWA is approximately 30,000 gallons per day. The Association maintains a single 25,000 gallon elevated water tower located in the Cooks Mill settlement area.

iii) Clearwater Service Corporation was formed in the late 1970's providing water to its first rural residential customers in 1978. Currently the Corporation serves over 2360 customers and has an average use of around 500,000 GPD. Clearwater Corporation constructed a new 1 million GPD water treatment plant in 1995. A majority of the water provided to its customers comes from Clearwater's wells located SW of Mattoon. An additional 100,000 GPD are purchased from EAWD. The Corporation maintains five water towers, four located in Coles County. These towers are located in: Paradise Township, 75,000 gallon capacity; Lafayette Township with a capacity of 200,000 gallons; Charleston Township with 60,000 gallons capacity and one in Pleasant Grove Township near Janesville, with a capacity of 75,000 gallons.

3. WASTEWATER TREATMENT

a) Charleston Wastewater Treatment Plant is responsible for the treatment of the City's sanitary sewage and maintenance of all sanitary lift stations. The Wastewater Treatment Plant is an activated sludge plant with tertiary filters. It is designed for 3.3 million gallons per day average flow and 6.0 MGD maximum flow. The system utilizes 11 remote lift stations and 1 Main Pump Station, which pumps all the flow to the treatment plant.

b) Mattoon Wastewater Treatment Plant is an activated sludge plant with tertiary filters. It is designed for 5.3 million gallons per day and a design maximum flow of 14.0 MGD. In addition, the plant has a 16.5 million gallon storage and equalization basin to capture first flush from the combined sewers. Additionally, the plant has a 12.0 MGD Treated CSO for wet weather flows. The City completed a treatment plant upgrade in 2004. The current sewer collection system utilizes 12 lift stations.

c) Oakland Wastewater Treatment Plant provides a secondary level of treated effluent. The current load on the plant is 82,000 gallons per day. The rated capacity is for 170,000 gallons per day. This provides the community with a good buffer for future development and peak loads.

d) Humboldt Wastewater Treatment Plant provides a secondary level of treated effluent through a sand filter/lagoon treatment process. Average capacity is around 23,000gpd, peak capacity is rated at 90,000gpd.

4. TELECOMMUNICATIONS

a) Locally operated radio stations include:

- WEIC AM 1270
- WHQQ FM 98.9
- WLBH AM 1170 FM 96.9
- WMCI FM 101.3
- WWGO FM 92.1
- WXET FM 107.9

b) Local Television

Coles County's only locally operated television stations is WEIU TV originating from the campus of Eastern Illinois University. WEIU-TV Channel 51 is carried on over 40 cable systems and reaches about 400,000 homes, WEIU-TV is a PBS affiliate. Its broadcasts include a nightly news program, *Newswatch*, as well as a weekly sports program, Sports Talk. The station produces a number of other specials throughout the year. WEIU carries classical, jazz, and alternative

contemporary music programming and is predominantly staffed by students. WEIU also broadcasts a number of EIU sporting and cultural events. Communication Studies and/or Journalism majors hold most scholarship and paid student positions.

c) Consolidated Communications

Founded in 1894, Consolidated Communications Holdings, Inc., (NASDAQ: CNSL) is a family of companies providing advanced voice, data, and video services to both business and residential customers. Services include local and long distance, dial-up and high-speed DSL Internet access, private line, carrier services, digital TV, and VoIP. Serving markets in Illinois and Texas, Consolidated Communications operates the 15th largest independent local telephone company in the nation. Its related businesses complement its core telecommunications business and include directory services, business systems, data networks, retail and operator services, call completion services, and fully-integrated telemarketing and fulfillment services.

Consolidated Communications uses the best available technology to ensure fast, reliable voice and data telecommunications networks with 99.99% reliability, including premium-grade 26,000 mile fiber optics voice network including fiber optic rings for route diversity, multiple network access points to the Internet, redundant power sources, multiple connection points, physical security to protect critical information, and an all digital network. Consolidated operates over 90,000 customer lines in a 3,000-square mile area in Central Illinois.

d) Mediacom

Mediacom Communications, the local cable company serving more than 10,000 customers throughout the county, is a leader in bringing new broadband services to the area's smaller cities and towns. Mediacom has built a nationwide fiber optic infrastructure to deliver a wide array of products and services including digital cable TV and 10Mbps high-speed Internet and a new telephone service.

Mediacom's digital network is able to provide all of their products and services over one platform. Mediacom Cable in the Classroom is a major system-wide educational program that provides students and teachers in many area schools served by local systems with free cable TV and high-speed Internet access, along with teacher and student study materials.

C. TRANSPORTATION

1. ROADS AND BRIDGES

Coles County is served by a number of major highways. I-57 runs through the central portion of the County and serves as a traffic route from Chicago to the "Boot-heel" of Missouri directly feeding to Interstates I-70, I-80, I-64, I-72, I-74, I-24 and I-55. U.S. 45 and State Highway 130 are two other north/south routes. State Highway 133, State

Highway 16 and State Highway 121 run in an east/west direction. The location of Coles County's highway system is illustrated on Exhibit

State Highway Mileage:	172
County Highway Mileage:	126
Township Highway Mileage:	769
Municipal Highway Mileage:	190

In 1998 a coalition of Public and Private Entities in East Central Illinois were successful in receiving approval for a new interstate interchange designed to improve economic development, tourism and quality of life. Federal funds, State funds, Illinois Commerce Commission (Safety) funds, Truck Access Route Program funds, Surface Transportation Rural funds and Canadian National Railroad funds have been secured for the project. The total cost of the project is estimated to be $28 million. The initial phase of the project is underway.

Interstate 57 is the major transportation artery for Coles County and the East Central region of Illinois. It runs north and south and is located between Mattoon and Charleston. The existing interchange serving both cities and other surrounding counties and communities provide access to IL Route 16 which goes through the center of both Mattoon and Charleston. Both communities have their industrial parks on their north sides requiring heavy industrial traffic to travel through the communities to access IL 16 and eventually I-57. County and community leaders recognize that a new access point to I-57 north of the existing IL 16 interchange would make their local industries more competitive and remaining industrial space more desirable while improving safety by eliminating the industrial truck traffic on IL 16.

Coles County Major Routes are identified on Figure 1. Bridges are identified on Figures 2 through 23.

2. RAIL SERVICES

County-wide approximately 30 trains pass through residential, commercial, industrial and rural areas daily. Several crossings do not have crossing arms and pose a potential danger to traffic. Amtrak provides passenger rail service at the downtown depot in Mattoon.

The Eastern Illinois Railroad and the Canadian National Rail line serve many industrial sites in Coles County. This choice provides competitive advantages to rail users.

The Eastern Illinois Railroad Company (EIRC) operates a former Nickel Plate line between Neoga and Metcalf, IL, a distance of 53 miles. Connections are made with the CN at Neoga and the CSX at Metcalf. the line was sold by the Norfolk Southern in 1988 to NRG, Inc. which contracted with Indiana Hi-Rail to operate the line from May 1988 until March 1991. EIRC then took over operations in April 1991 as a subsidiary of NRG; Inc. cargo traffic is primarily grain, lumber and plastic.

Rail lines in Coles County are identified on Figure 1.

3. AIR SERVICE

The Coles County Memorial Airport (MTO) has been serving the general aviation community for over 50 years. Construction of the public airport started in 1951 and was completed the following year. The Coles County Memorial Airport averages 35,000 operations annually (90 per day) and maintains an FAA Part 139 Certification. There are 64 aircraft based at the airport which includes 54 single engine aircrafts, 4 multi-engine aircrafts, 1 jet engine aircraft, 2 helicopters and 3 ultra lights.

The airport maintains a 6,500 x 150 and a 5,800 x 100 foot paved runways, as well as 10,000 sq ft excess hanger capacity. The control center operates a full instrument landing system. Though no public passenger service carrier is currently operating, the airport provides important corporate service for industries in the immediate area. Location of the airport is: LAT 29-28'40", LON 88-16'45"; and is situated midway between Charleston and Mattoon along IL Rte 16.

The Coles County Airport is identified on Figure 7. An attempt to identify all Coles County Critical facilities and are illustrated on Figures 2 through 23 in this document.

RESOURCES

http://paleodb.org/cgi-bin/bridge.pl?action=displayCollectionDetails&collection_no=24285

http://www.geostats.info/state/IL/county/Coles/

http://www.isgs.uiuc.edu/hi_low/coles.html

http://www.netstate.com/states/geography/il_geography.htm

http://paleodb.org/cgi-bin/bridge.pl?action=displayCollectionDetails&collection_no=24285

http://www.geostats.info/state/IL/county/Coles/

Illinois State Water Survey, State Climatologist Office

V. Hazard Analysis

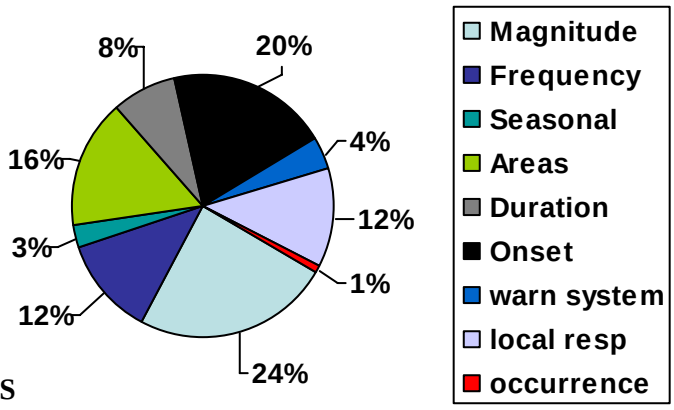
A. CATEGORY WEIGHTING

Hazard Severity Ratings are based on a 100 point scale. The higher the rating, the more critical the hazard is to the community. CCRP&DC and Coles County EMA staff along with input from the HMP Committee rated each hazard in the following nine categories: potential magnitude, frequency of occurrence, seasonal pattern, areas affected, duration, speed of onset, warning system, local response capabilities, and previous occurrence. The Hazards Severity Rating for each hazard is calculated by adding together the ratings for each category. The Hazards Analysis Worksheet shows how the ratings in each category are calculated.

Each category has predetermined importance-weighting factors *(wf)*. The following points are the maximum offered for each of the 9 categories listed below (based on 100 point scale):

Categories percentages

Potential Magnitude: 24
Speed of Onset: 20
Areas Affected: 16
Frequency Occurrence: 12
Local Response: 12
Duration Rating: 8
Warning Systems: 4
Seasonal Planning: 3
Hazard previous occurrence in Coles County: 1



B. HAZARDS ANALYSIS CATEGORIES

The following categories were used in determining the Hazard Severity Rating for each hazard:

1. POTENTIAL MAGNITUDE: The percentage of community affected by the hazard.

   SCALE: **24 points** = More than 50%
   18 points = 25% to 50%
   12 points = 10% to 25%
   6 points = less than 10%

2. FREQUENCY OF OCCURRENCE: The probability that the hazard would occur in the community.

   SCALE: **12 points** = *Highly Likely* (100%, within the next year)
   9 points = *Likely* (10%< x <100%, within the next 10 years)
   6 points = *Possible* (1%<x<10%, within the next 100 years)
   3 points = *Negligible* (x<1%, more than 100 years prob.)

3. SEASONAL PATTERN: Most likely time of the year that the hazard might occur.

SCALE: **3 points** = Likely to occur anytime of the year
2 points = Likely to occur during extreme weather conditions only
1 points = Likely to occur during moderate weather conditions only

4. AREAS AFFECTED: Hazard affects high or low population areas and critical facilities.

SCALE: **16 points** = high population, critical facilities
12 points = high population, no/few critical facilities
8 points = low population, critical facilities
4 points = low population, no/few critical facilities

5. DURATION RATING: Length of time the hazard would last.

SCALE: **8 points** = more than 15 days
6 points = 8 to 14 days
4 points = 3 to 7 days
2 points = less than 2 days

6. SPEED OF ONSET: Community's hours of warning prior to occurrence

SCALE: **20 points** = 0 to 6 hours
15 points = 7 to 12 hours
10 points = 13 to 24 hours
5 points = more than 25 hours

7. WARNING SYSTEMS: Expected percentage of population receives warning prior to occurrence.

SCALE: **4 points** = inadequate ($0 < x < 25\%$ population receives warning)
3 points = basic ($26\% < x < 50\%$ population receives warning)
2 points = enhanced ($51\% < x < 75\%$ population receives warning)
1 point = advanced ($76\% < x < 100\%$ population receives warning)

8. LOCAL RESPONSE CAPABILITIES: level of aid that would be requested by the community.

SCALE: **12 points** = State assistance required
8 points = Mutual aid required
4 points = Mutual aid not required

9. PREVIOUS OCCURRENCE: whether or not hazard has occurred in Coles County before.

SCALE: **1 point** = hazard has occurred in Coles County

C. **HAZARDS ANALYSIS WORKSHEET**

A prioritized list of hazards (below) was developed based upon the **Hazard Severity Ratings.**

	Hazards	Community	Potential Magnitude	Frequency Occurance	Seasonal Patterns	Areas Affected	Duration	Speed of Onset	Warning Systems	Local Response	Previous Occurance	Total
1	Thunderstorms	C,M,L,O,CC	24	12	2	16	4	20	2	12	1	**93**
2	Tornado	C,M,L,O,CC	24	9	3	16	4	20	2	12	1	**91**
3	Earthquakes	C,M,L,O,CC	24	6	3	16	4	20	4	12	1	**90**
4	Power Failure	C,M,L,O,CC	24	9	2	16	6	20	4	8	0	**89**
5	Communications Failure	C,M,L,O,CC	24	6	3	16	4	20	4	8	0	**85**
6	Pipeline Failure	M,L,CC	18	6	3	16	2	20	4	12	0	**81**
7	Terrorism	C,M,L,O,CC	12	3	3	16	4	20	4	12	0	**74**
8	Epidemics	C,M,L,O,CC	18	9	3	16	6	5	2	12	1	**72**
9	Civil Disturbance	C,M,L,O,CC	12	3	3	16	4	20	4	8	1	**71**
10	Winter Storm	C,M,L,O,CC	24	9	2	16	4	5	1	8	1	**70**
11	Dam Failure	C,M,O	18	3	2	8	6	15	4	12	1	**69**
12	Extreme Temperature	C,M,L,O,CC	24	9	2	16	6	5	1	4	1	**68**
13	Hail Storms	CC, C,M,L,O	18	9	3	8	2	20	2	4	1	**67**
14	Nuclear Accident	C,M,L,O,CC	18	3	3	8	6	15	1	12	0	**66**
15	Flood/ Flash Flood	CC,C,M,L,O	12	9	3	4	4	20	2	8	1	**63**
16	Drought	C,M,L,O,CC	18	9	2	16	4	5	1	4	1	**60**
17	Structural Fire	C,M,L,O,CC	6	9	2	12	2	20	4	4	1	**60**
18	Haz Material Accidents	C,M,L,O,CC	6	6	3	4	2	20	2	8	0	**51**
19	Wild Fire	CC	6	6	2	4	2	20	2	8	0	**50**

Community Code

CC = Coles County
C = City of Charleston
M = City of Mattoon
L = Village of Lerna
O = City of Oakland

D. HAZARD SYNOPSIS

1. FIRE

a. Wildfires Analysis TOTAL:50

Potential Magnitude: 6
Speed of Onset: 20
Areas Affected: 4
Seasonal Patterns: 2
Local Occurrence: 1 (2006)

Frequency Occurrence: 6
Local Response: 8
Duration Rating: 2
Warning Systems: 2

Description:
There is a lack of historical data or documented wildfires in Coles County.
Vulnerability:
Wildfires can occur mainly during periods of drought or extreme dryness. Areas such as open fields or areas surrounding large forest areas could be potentially dangerous due to wind and the flammability of the dry vegetation.
Risk:
The risk of wildfires is limited to rural areas (Coles County) with significant vegetation to serve as fuel; especially when considered during drought conditions. Generally considered a low risk to incorporated or built-up areas.
Response:
Local response agencies would be capable of responding and recovering from a wildfire.

b. Structural Fires TOTAL: 60

Potential Magnitude: 6
Speed of Onset: 20
Areas Affected: 12
Seasonal Patterns: 2
Local Occurrence: 1 (2007)

Frequency Occurrence: 9
Local Response: 4
Duration Rating: 2
Warning Systems: 4

Description:
According to the Charleston Fire Department a total of 6 fire fatalities were reported between 1995 – 2005. Other numerous fires also occurred around the area.
Vulnerability:
Structural fires can occur during any period with little or no warning. Areas with buildings in closer proximity to one another could be more susceptible to damage.
Risk:
Charleston, Mattoon, Oakland, Lerna and specifically the settlement areas of rural Coles County are all at risk for structural fires. Generally structural fires are considered low risk due to modern fire detection practices and code enforcement.
Response:
In most cases local response agencies would be capable of responding to and recovering from a structural fire. In come cases mutual aid may be needed.

2. NATURAL DISASTER (Earthquake)

a. Earthquakes TOTAL: 90

Potential Magnitude: 24
Speed of Onset: 20
Areas Affected: 16
Seasonal Patterns: 3
Local Occurrence: 1 (1895)

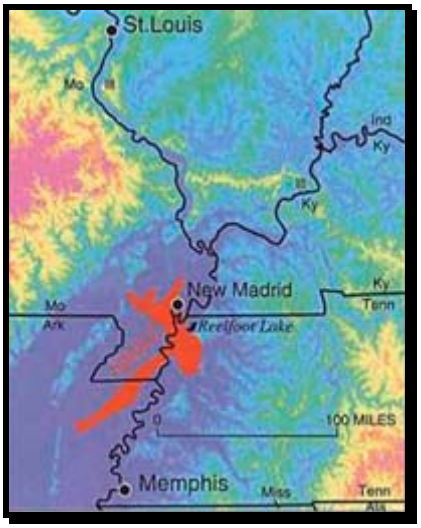
Frequency Occurrence: 6
Local Response: 12
Duration Rating: 4
Warning Systems: 4

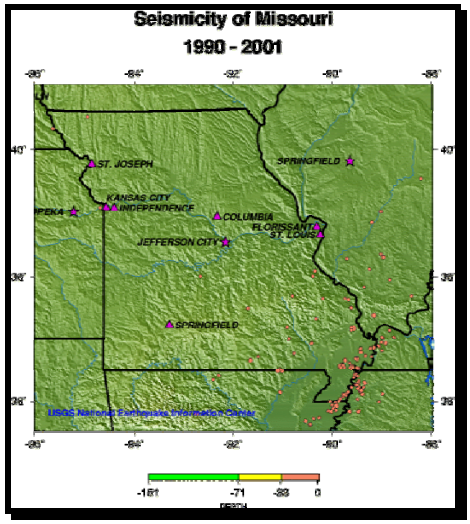
Description:
A major earthquake did affect Coles County in 1895 which originated around the southern tip of Illinois into Missouri. Significant shaking would have been felt of moderate magnitude and low to moderated duration. However, the earthquake of 1811-1812 had a magnitude of 8.0 or higher causing the Mississippi River to reverse its flow; also forests were destroyed, new lakes were formed, and land seemed to "disappear." Fatalities and damages were low due to sparse settlement of the area. Due to the New Madrid Fault located approximately 200 miles SW and the Wabash Fault situated less than 75 miles to the SE, Coles County would experience strong intensity. The likelihood of a damaging (magnitude 6.3 or greater) quake occurring in the next 15 years is 40 – 63 percent. *(http://hsv.com/genlintr/newmadrd/)*
A recent Earthquake struck Coles County in April 2008. The earthquake had its epicenter near Lawrenceville Illinois and had a magnitude of 5.2.

Vulnerability:
The New Madrid Fault is active averaging more than 200 events per year. A damaging earthquake in this area (6.0 or greater) occurs about every 80 years. The results would cause damage to schools and masonry buildings surrounding the epicenter of the earthquake. Shaking could be felt as far north as Chicago and as far east as Pennsylvania depending upon the magnitude.

Risk:
Charleston, Mattoon, Oakland, Lerna and Coles County are all at risk for earthquakes. The State of Illinois HMP suggest that Coles County will not be able to avoid damage associated with a major quake along the New Madrid, the Wabash Faults as well as the numerous smaller faults in the area. (See Figures 28 & 29 at the end of this Section)

Response:
In most cases local response agencies would be capable of responding to and recovering from a moderate earthquake. Under a worst case scenario mutual aid would be required from surrounding agencies and in catastrophic situations, State and/or Federal assistance could be required as well.





New Madrid Fault location is in parts of Missouri, Tennessee, and Arkansas, however earthquakes are felt throughout portions of Illinois.

3. WEATHER

a. Thunderstorms TOTAL: 93

Potential Magnitude: 24
Speed of Onset: 20
Areas Affected: 16
Seasonal Patterns: 2
Local Occurrence: 1 (2006)

Frequency Occurrence: 12
Local Response: 12
Duration Rating: 4
Warning Systems: 2

Description:
Severe Thunderstorms are the most common hazards affecting Coles County. Seasons typically last from March until October and occur frequently when conditions are favorable. Some damaging factors are hail, winds, lightning, flooding, and occasional tornados.

Vulnerability:
Damage ranges from minimal to catastrophic depending upon the path, size, and intensity of the storm system. Damage and injury potential is high due to largely populated areas, large number of mobile homes, and manufactured housing units; as well as a lack of adequate shelter available throughout the county.

Risk:
The risk of suffering from severe thunderstorms is high for all jurisdictions (Charleston, Mattoon, Oakland, Lerna and Coles County).

Response:
Local agencies have set guidelines in place. State and mutual assistance would be needed depending upon level of destruction. Warning systems and alert sirens, are currently in place for the cities of Charleston and Mattoon where the majority of Coles County's population is located, nearly 80 percent. Those towns without warning sirens have access to local radio and weather broadcasts. EMA also activates

storm spotters which are stationed throughout the Coles County region during severe weather outbreaks.

b. Hail Storm TOTAL: 67

Potential Magnitude: 18
Speed of Onset: 20
Areas Affected: 8
Seasonal Patterns: 3
Local Occurrence: 1 (2006)

Frequency Occurrence: 9
Local Response: 4
Duration Rating: 2
Warning Systems: 2

Description:
Coles County has experienced 48 hail storms since 1974. Hail Storms are often associated with Severe Storms producing Tornadoes. Hail often falls directly to the northeast of east of the path of the Tornado.
(http://www.srh.noaa.gov/lub/safety/tips_facts/hail.htm)

Vulnerability:
Agricultural areas are mostly affected however humans can be endangered as well, depending upon the size of the hail stone. Types of crop damages could range from slicing corn and other plants to ribbons and complete destruction of crops. Parts of this region average between seven and nine hail days a year. Hail very rarely kills anyone; however a couple of dozen people are injured by hailstones each year.

Risk:
Charleston, Mattoon, Oakland, Lerna and Coles County are all at risk of suffering hail damage. However, as the local agricultural economy is based in the unincorporated areas of the county, Coles County's risk to this hazard is significantly higher.

Response:
Current warning systems include severe weather warnings related to Tornadoes.

Corn Crop damage caused by hail.

c. Tornado TOTAL: 91

Potential Magnitude: 24
Speed of Onset: 20
Areas Affected: 16
Seasonal Patterns: 3
Local Occurrence: 1 (1917)

Frequency Occurrence: 9
Local Response: 12
Duration Rating: 4
Warning Systems: 2

Description:
According to the National Climatic Data Center approximately 32 tornadoes have struck in Coles County since 1958. This is the most accurate data source available. The period between the 1917 tornado and 1958 is undocumented.

Vulnerability:
Due to the frequency and unpredictable pattern of tornadoes, all of Coles County is vulnerable to tornado induced damages. The injury and damage potential is high due to the concentrations of populated areas, large number of mobile homes, manufactured housing units as well as the lack of adequate storm shelters throughout the County. Warning systems are in place to alert the public prior to the onset of a storm when possible.

Risk:
Given seasonal and/or climatic conditions, Charleston, Mattoon, Oakland, Lerna and Coles County are all at considerable risk of suffering from tornadoes.

Response:
In most cases local response agencies would be capable of responding to and recovering from a tornado. Under a worst case scenario mutual aid would be required from surrounding agencies and in catastrophic situations, State and/or Federal assistance would be required.

d. Flood/Flash Flooding TOTAL: 63

Potential Magnitude: 12
Speed of Onset: 20
Areas Affected: 4
Seasonal Patterns: 3
Local Occurrence: 1 (2003)

Frequency Occurrence: 9
Local Response: 8
Duration Rating: 4
Warning Systems: 2

Description:
Most floods occur from streams flowing through or adjacent to the City of Charleston (Riley Creek), Lerna (Indian Creek), Mattoon (Kikapoo Creek), Oakland (Hog Branch of Embarras River), as well as rural areas of the County (Embarras River). Coles County and its communities have suffered from two flood occurrences which were Nationally Declared Disasters by the President. These were Disaster #438 which occurred on June 10, 1974 and #1771 which recently occurred on June 7, 2008. Additionally, considerable flooding has also occurred in 1998, 2001 and 2003; these however, were not declared disaster events.

Vulnerability:
Seasonal flooding can occur during early spring to late fall; however floods can be expected, in extreme cases, any time throughout the year. Repetitive Loss: Currently, Coles County does not have any properties that fit the definition of a Repetitive Loss

Structure. If such properties should exist in the future, the County will address that issue in the HMP Update.

Risk:
Any area with a high water table could be at risk for flooding during a heavy rain period, as well as, any jurisdiction near a stream or river during same conditions. This situation would impact Charleston, Mattoon, Oakland, Lerna and Coles County. Further, Charleston, Mattoon, and Coles County all contain areas which fall into a FEMA designated Floodplain.
Response:
In most cases State aid would be required; however in extreme cases Federal and State relief would be available for victims.

e. Drought TOTAL:60

Potential Magnitude: 18
Speed of Onset: 5
Areas Affected: 16
Seasonal Patterns: 2
Local Occurrence: 1 (1991)

Frequency Occurrence: 9
Local Response: 4
Duration Rating: 4
Warning Systems: 1

Description:
Drought gripped much of the Midwest from 1987 to 1991.
Vulnerability:
Coles County farmers would be directly affected as well as many of our streams and tributaries from the Embarrass Water Shed. Drought can come with periods of intense prolonged heat which could pose health issues to many residents within Coles County. Drought can occur any time of the year when conditions are favorable.
Risk:
Charleston, Mattoon, Oakland, Lerna and Coles County are all at risk for drought, however, the risk is minimal.
Response:
In most cases private aid would be needed. Local agencies have prepared a synchronized list of implementations if drought should affect the communities within Coles County

f. Extreme Temperatures TOTAL: 68

Potential Magnitude: 24
Speed of Onset: 5
Areas Affected: 16
Seasonal Patterns: 2
Local Occurrence: 1 (1996)

Frequency Occurrence: 9
Local Response: 4
Duration Rating: 6
Warning Systems: 1

Description:
Excessive heat struck Coles County in 1991 with a total of 4 deaths due to overheating. Four other extreme heat instances occurred since 1996 with temperatures ranging from 116 and 122 degrees (www.fema.gov). Extreme cold temperatures accounted for two deaths in 1996 within Coles County.
Vulnerability:

Coles County can be directly affected depending upon seasonal patterns. Elderly, young children and those with illnesses are more susceptible to becoming victims of both extreme heat and cold.

Risk:

Charleston, Mattoon, Oakland, Lerna and Coles County are all at risk for extreme temperatures.

Response:

Local response agencies have a plan in place if conditions for such hazard should occur. Local mutual aid would be needed if circumstances arose.

g. Winter Storm TOTAL: 70

Potential Magnitude: 24
Speed of Onset: 5
Areas Affected: 16
Seasonal Patterns: 2
Local Occurrence: 1 (2006)

Frequency Occurrence: 9
Local Response: 8
Duration Rating: 4
Warning Systems: 1

Description:

Coles County has experienced 8 winter storms in the last ten years. A total of 16 incidents have occurred since 1955.

Vulnerability:

Coles County can be directly affected due to the geographic location of the county in relationship to the climatic zones. Meteorological frontal systems pass through the area on a weekly basis bringing in artic cold air which in turn produces mild to severe winter storms. These storms can last anywhere from a few hours to a week depending upon the strength of the frontal system.

Risk:

Given seasonal and/or climatic conditions, Charleston, Mattoon, Oakland, Lerna and Coles County are all at considerable risk of suffering from winter storms.

Response:

Local mutual aid would be needed depending upon the duration and the strength of the storm system. State aid may be required for equipment usage related to the intensity of the system.

4. EPIDEMICS/DISEASE TOTAL: 72

Potential Magnitude: 18
Speed of Onset: 5
Areas Affected: 16
Seasonal Patterns: 3
Local Occurrence: 1 (1950's)

Frequency Occurrence: 9
Local Response: 12
Duration Rating: 6
Warning Systems: 2

Description:

A major Influenza outbreak occurred in 1919 and a nation wide Polio epidemic affected Coles County in the early 1950's.

Vulnerability:

Nearly 100 percent of the population would be susceptible to epidemics or diseases. The elderly and the young would be most vulnerable. In the event of insect

infestation, nearly 100 percent of the area within the county could be affected. Agricultural losses could be enormous, causing a severe economic impact to the county.

Risk:

Charleston, Mattoon, Oakland, Lerna and Coles County are all at risk to Epidemics and/or Diseases impacting their populations.

Response:

A wide-spread disease or epidemic would likely be beyond the capabilities of local health agencies and response agencies. Mutual aid and State or Federal assistance would be required.

5. PUBLIC TRANSPORTATION

a. Hazardous Materials Accident TOTAL: 51

Potential Magnitude: 6
Speed of Onset: 20
Areas Affected: 4
Seasonal Patterns: 3
Last Hazardous Material Accident: 2006

Frequency Occurrence: 6
Local Response:8
Duration Rating: 2
Warning Systems: 2

Description:

HAZMAT accidents occur annually in Coles County. Fortunately, most accidents are minor or limited in scope, thereby affecting only a small area and segment of the population. However, the potential for more significant accidents is high. The event will most likely occur during a vehicle accident along a major transportation route, Interstate 57. In addition, railroad lines pass through the County transporting unknown amounts of hazardous materials.

Vulnerability:

A significant portion of the populations could be affected by a hazardous substance release as well as a significant portion of the land area of Coles County could be affected by a hazardous substance release.

Risk:

Charleston, Mattoon, Oakland, Lerna and Coles County are all at risk of Hazardous Materials incidents impacting their populations.

Response:

The Charleston Fire Department sponsors a Regional Hazardous Materials Response Team which is fully equipped and capable of responding to and recovering from a hazardous materials incident. Once the Team's capabilities were suppressed by the incident mutual aid and State assistance would be required.

6. PUBLIC UTILITIES

a. Communications Failure TOTAL: 85

Potential Magnitude: 24
Speed of Onset: 20

Frequency Occurrence: 6
Local Response: 8

Areas Affected: 16 Duration Rating: 4
Seasonal Patterns: 3 Warning Systems: 4
Local Occurrence: 0 – Has not occurred

Description:
Communication disruptions have occurred several times in recent Coles County history; however the outages have generally been short-lived and isolated. Wide spread outages are not typical for this area.

Vulnerability:
During a wide spread communications failure there is a potential for nearly 100 percent of Coles County population to be affected. The loss of Coles County 911 Communications Center would hamper dispatching law enforcement, fire, and EMS and EMA responses. The loss of radio stations and cellular or telephone service would hamper effectively reporting information to the public during times of disaster.

Risk:
Charleston, Mattoon, Oakland, Lerna and Coles County are all at risk to Communication Failures impacting their communities.

Response:
In most cases local response agencies would be capable of responding to and recovering from a moderate communications failure. Under a worst case scenario mutual aid would be required from surrounding agencies and in catastrophic situations. State assistance would be required.

b. Pipeline Failure or Breach TOTAL: 81

Potential Magnitude: 18 Frequency Occurrence: 6
Speed of Onset: 20 Local Response: 12
Areas Affected: 16 Duration Rating: 2
Seasonal Patterns: 3 Warning Systems: 4
Local Occurrence: 0 – Has not occurred

Description:
There have been no documented incidents of ruptured pipelines in Coles County; however there have been several incidents of natural gas supply lines being severed during digging and trenching operations.

Vulnerability:
In the event of a rupture, a significant portion of the population could be affected through evacuation or service disruption.

Risk:
Based on the information provided, only the communities in the western part of Coles County (Lerna and Mattoon) are at any significant risk of Pipeline failures impacting their populations.

Response:
Local response agencies would be capable of responding to and recovering from service and local supply line ruptures or breeches. In the event of a major pipeline rupture or breech State assistance would be required.

c. Dam Failure TOTAL: 69

Potential Magnitude: 18
Speed of Onset: 15
Areas Affected: 8
Seasonal Patterns: 2
Local Occurrence: 1 (1980's)

Frequency Occurrence: 3
Local Response: 12
Duration Rating: 6
Warning Systems: 4

Description:
Coles County has a slight threat for dam failure. Lake Charleston dam failed in the early 1980's resulting in a water supply crisis for the city.
Vulnerability:
The city of Charleston is directly affected by dam failure due to the fact their water resource could deplete for a period of time.
Risk:
Only Charleston, Mattoon and Oakland are at risk of suffering from a dam failure.
Response:
Mutual aid would be required and State assistance would be needed in a worst case scenario.

d. Power Failure TOTAL: 89

Potential Magnitude: 24
Speed of Onset: 20
Areas Affected: 16
Seasonal Patterns: 2
Local Occurrence: 0- Has not occurred

Frequency Occurrence: 9
Local Response: 8
Duration Rating: 6
Warning Systems: 4

Description:
There have been no major power outages documented for Coles County
Vulnerability:
The entire population of Coles County is vulnerable to power outages. The increased dependence on electricity especially by the elderly and those requiring special care increases the vulnerability. Repairs could be costly and time consuming.
Risk:
Charleston, Mattoon, Oakland, Lerna and Coles County are all at risk to power failures impacting their populations.
Response:
In most cases local response agencies would be capable of responding to and recovering from a power failure. Under a worst case scenario a major power failure would require mutual aid and in catastrophic situations State assistance would be required.

7. MISCELLANEOUS

a. Terrorism TOTAL: 74

Potential Magnitude: 12
Speed of Onset: 20
Areas Affected: 16
Seasonal Patterns: 3
Local Occurrence: 0 – has not occurred

Frequency Occurrence: 3
Local Response: 12
Duration Rating: 4
Warning Systems: 4

Description:
There have been no previous occurrences of Terrorism attacks within recent history of Coles County.
Vulnerability:
Government, research, Eastern Illinois University, and individual facilities may become targets for terrorist attacks. An event such as this could result in a significant number of deaths or injures as well as damage to critical facilities.
Risk:
Charleston, Mattoon, Oakland, Lerna and Coles County are all potentially at risk to the effects of terrorism.
Response:
Coles County and local municipal officials recognize terrorism potentials and maintain active plans and procedures in case of emergencies. A terrorism annex has been added to the County Response Plan and will be implemented upon such hazard. Mutual aid and State assistance is likely to be required in such an event.

b. Civil Disturbance TOTAL: 71

Potential Magnitude: 12
Speed of Onset: 20
Areas Affected: 16
Seasonal Patterns: 3
Local Occurrence: 1 (1960's)

Frequency Occurrence: 3
Local Response: 8
Duration Rating: 4
Warning Systems: 4

Description:
There have been no documented events of public disorder in Coles County since the 1960's.
Vulnerability:
In the event of civil disorder, the event would likely be restricted in size and area. Some property damage and injuries might occur. However, the vulnerability is considered low.
Risk:
Charleston, Mattoon, Oakland, Lerna and Coles County all are potentially at risk from this hazard, however, considering the current socio-political situation the risk of civil disturbance is low for all jurisdictions.
Response:

Local response agencies would likely be capable of responding to and recovering from a civil disobedience event. Major civil disobedience events would require both mutual aid and State assistance.

c. Nuclear Accidents TOTAL: 66

Potential Magnitude: 18
Speed of Onset: 15
Areas Affected: 8
Seasonal Patterns: 3
Local Occurrence: 0 – has not occurred

Frequency Occurrence: 3
Local Response: 12
Duration Rating: 6
Warning Systems: 1

Description: There have been no past occurrences of nuclear accidents in or around Coles County.
Vulnerability: A currently operating plant within three hours south of Coles County in Metropolis, IL near the Illinois – Kentucky border is Honeywell Facility-Uranium Conversion Facility. Also, an operating plant just east of Clinton, IL nearest Decatur, IL is the Exelon Nuclear Facility. Both plants are within close proximity to being potentially hazardous to the Coles County area. Of particular concern to note is that I-57 is a major transportation route and the transportation of radioactive materials in likely to occur through Coles County.
Risk:
Charleston, Mattoon, Oakland, Lerna and Coles County all are potentially at risk to fall-out hazard of a nuclear accident.
Response: In the event of a nuclear explosion or accident State assistance would be required for recovery.

Honeywell Facility located on the Ohio River near the Illinois - Kentucky border

Figure 28

Figure 29

VI. Current Mitigation Efforts

Coles County is in the process of forming a new team to support police, fire, and emergency management efforts in the county. The Coles County Incident Management Team is a type 4 support team trained in All Hazards incidents command. The team has members trained in National Incident Management System that would assist in process of develop an Incident Action Plan for the incidents. The Coles County's IMT Type 4 has received a travel trailer which has been converted to a command post for locale officials to use during an incident or major event.

A. FIRE (Structural/Wildfires)

The following are ongoing and current activities directed toward Fires:

1. Mutual aid agreements.

   Most fire districts are self-contained with events of normal to minor incidents. However, upon more catastrophic events there are mutual aid agreements between the various municipal fire departments and various local fire protection districts. Mattoon and Charleston also belong to MABAS mutual aid system that, for the most part, is statewide.

2. Fire Prevention Week.

Charleston Fire Department observes Fire Prevention Week and conducts public education on safety during this time. The Department also provides occupancy inspections in the corporate limits. Additionally, in conjunction with Fire Prevention Week , the Charleston FD hosts and annual open house at the Charleston Training Facility.

Mattoon Fire Department observes Fire Prevention Week and conducts public education on safety during this time. MFD also gives away free smoke detectors through the Remembering When program. MFD is active in the Risk Watch program. MFD also provides building inspections and is working towards being more aggressive in this area.

B. EARTHQUAKE

1. The Coles County EMA participates in the annual Region 9 Earthquake Exercise .

2. The Cities of Mattoon and Charleston utilize the 2003 International Building Codes which have seismic standards included. EIU uses the BOCA which also includes some seismic standards.

C. WEATHER: Tornado / Thunderstorms (Wind/Hail/Lightning/Extreme Temperatures/Drought)

The following are ongoing and current activities directed toward tornadoes:

1. Plectron indoor warning systems
   The Coles County Emergency Management Office has the capabilities of activating receivers located in all local schools, nursing homes, daycare centers, hospitals, CCAR

and many City buildings throughout Mattoon and Charleston to provide warning information for residents on severe weather or hazardous materials incidents.

2. NOAA weather radio

The NOAA provides NOAA weather radio coverage countywide for weather warnings and updates. The National Weather Service provides NOAA weather radio coverage. It is the responsibility of individuals and businesses to purchase receivers. NWS operates the local area radar and watches/warnings. They are as follows:

WXJ-76 transmits at 162.550 MHz from the WDWS-WHMS tower in Champaign. Cities in the coverage area include Champaign-Urbana, Charleston-Mattoon, Danville, Paxton, Paris, and Farmer City.

KXI-46 transmits at 162.56 MHz, from a tower near Shelbyville, IL.

KXI-47 transmits at 162.525 MHz, from a tower 2 miles south of Paris (Edgar County). Cities in the coverage area include Charleston, Tuscola, Paris, and Marshall Illinois.

KXI-48 transmits at 162.45 MHz, from a tower located near Newton, IL.

3. Radar Link to NWS

Emergency Management is able to access real time radar data from the national Weather Service with zoom capabilities. Additionally, all Mediacom customers have access to TV Alerting System activated by the Coles County EMA.

4. Tornado Sirens

The Coles County Emergency Management Office and the Mattoon PD have the capability of activating several sirens throughout the county via radio signal. The Coles County E-911 Center provides a backup for activation if necessary.

5. Public Education during Severe Weather Awareness Week

The Coles County Emergency Management Agency has brochures available for weather related disaster preparedness and encourages participation with the statewide tornado drills and testing of emergency plans. The Coles County Emergency Management Office provides instruction or talks on Emergency Preparedness upon request. Also, the EMA provides National Weather Service (NWS) mailings to all local media services.

6. Training

Emergency Management Agency brings severe weather training through the NWS to emergency responders annually and opens this training to the public. Severe weather identification and reporting is covered, as well as spotter safety. Further, alternate basic and advanced level training is also available.

7. Indoor warnings at all schools

All schools in Charleston Community Unit District #1, Mattoon CUSD #2, and Oakland CUSD #5 have either Plectron and/or NOAA Weather Radios and are also capable of receiving emergency warning information via cable television (Mediacom customers only).

Eastern Illinois University will soon be installing a public notification system in the academic buildings. This system will be activated by University Police for notification of condition on campus. In addition a hard wired system connected to the campus fire alarm system has been installed in any newly renovated building on campus. The fire alarm panel will play the "severe weather warning" in the building. The activation is through the Cole's County Emergency Management Agency. When the out-door campus alarm system is activated on Booth Library a signal will be sent to the fire alarm system to activated the warning in the buildings.

8. Shelters

The City of Charleston and the County Board have designated the lower level of the Courthouse as an emergency shelter during severe weather. The Charleston Police Department is responsible for opening the shelter after hours. Shelter rules are posted with information on how to use the NOAA Weather Radio available and how to report emergencies. The City of Mattoon, in cooperation with the American Red Cross has identified various locations throughout the community as emergency shelters.

Through signed cooperative agreements, the local American Red Cross has responsibility to identify and maintaining emergency shelters as needed in Coles County.

Eastern Illinois University has designated areas in the academic and residential building as emergency severe weather shelter. The areas are marked with signs indicated the shelter location.

9. Educational Materials

Emergency Management provides many communities in Coles County with educational materials on Tornadoes for their residents. The Emergency Management provides material on the following topics: Tornado Preparedness and any phase of Emergency Preparedness.

10. Tie-down requirements

Mattoon and Charleston have incorporated roof and rafter "tie downs" requirements for all new construction into its 2003 Building Codes.

C-2. WEATHER: Winter Storm (Blizzard/Ice/Extreme Temperatures)

The following are ongoing and current activities directed toward winter storms or blizzards:

1. Community shelters

American Red Cross has identified shelters in Charleston and Mattoon that can be utilized in an emergency situation or for stranded motorists. Further, the State IEMA has responsibility to designate warming/cooling centers in each county; one location is at 119 West State Street Charleston.

2. Public Education

Coles County EMA provides communities with public information on winter storms and blizzards.

3. Secondary Roads emergency situation Priority snow removal routes

Local City Street Departments have identified primary snow removal routes and coordinates with the school transportation director(s) and Township Road Commissioners annually to ensure buses can get the students home in the event of school closures due to snow.

4. Priority snow removal

The Municipal Street Department crews assists emergency responders with snow removal service from identified routes during snowstorms for emergency situations.

5. Underground power lines

The Charleston Subdivision Regulations require underground utility lines. Underground power lines protect the lines from high winds, ice, and other damaging elements. Though Mattoon subdivision regulations do not currently require this, all new subdivisions in Mattoon are compliant with the Ameren CIPS underground utility requirement.

6. Tree trimming programs

The electric power companies serving the local communities and residents of the rural areas ensure that trees along their power transmission lines are trimmed to minimize interference with transmission.

C-3 WEATHER: Flood/Flash Flood

1. Flood Control

Most of the retention reservoirs built in Charleston, Mattoon and the rest of the County have been built by the private sector in coordination with specific developments. In some cases these retention reservoirs have provided a benefit for the immediate adjacent areas of the city and not just the specific development.

Charleston, Mattoon and Lerna have taken steps to improve the drainage situation within their respective corporate limits and on adjacent properties.

2. Structural Relocation Projects

There have been no structural relocation projects in Charleston, Lerna, Mattoon, or Oakland.

3. Flood Proofing Projects

Charleston has completed a regional flood retention pond on the east side of town adjacent to the Wal-Mart development. Information has been distributed to homeowners on potential flood proofing projects for residences, but no projects have been proposed for county buildings.

Mattoon has completed a new storm sewer collection system on South 12th Street to accommodate past flooding issues. This system begins at the new school and runs to Kickapoo Creek.

The Village of Lerna upgraded its storm drainage system in 1997 utilizing a combined funding sources from the IL DCEO-CDAP grant and Small Systems Grant from the IL DNR. These efforts have improved the persistent ponding and flooding which had occurred previously throughout the community.

4. Floodplain Management / National Flood Insurance Program

The County of Coles and the communities of Charleston, Lerna, Mattoon and Oakland are members of the National Flood Insurance Program (NFIP). In 2008 there was some significant flooding which required pay outs from the Program for damage and loss. None of the Communities or the County participate in the Community Rating System (CRS).

a) The City of Charleston adopted (updated) the NFIP Ordinance 89-0-29 on 11/21/89 and can be found in the Charleston City Code. Mattoon joined the NFIP on May 17, 1977, the most recent update to the ordinance was in 2001.

b) Other ordinances adopted by the Cities of Charleston and Mattoon are City Zoning Ordinances and Subdivision Regulations. Coles County has never implemented zoning in the rural areas. The County has, however, adopted a subdivision ordinance.

c) The Cities of Charleston, Mattoon, Oakland and the Village of Lerna routinely remove debris in the floodway and flood prone areas.

d) The Coles County Board adopted the FEMA Floodplain Regulation ordinance in August 2003.

NFIP Participating Communities

Community	*NFIP*	*FIRM Date*	*CRS*
Charleston	Yes	9/28/1984	No
Lerna	Yes	n/a	No
Mattoon	Yes	12/18/1985	No
Oakland	Yes	n/a	No
Coles County	Yes	8/5/1985	No

D. EPIDEMICS-DISEASE

The following are ongoing and current activities by the Coles County Health D directed toward the prevention of diseases and epidemic outbreaks.

1. Communicable Diseases

    a) Disease Surveillance- Reportable diseases as defined in the Illinois Department of Public Health Rules and Regulations of Communicable Disease and Related Documents July 1, 2002. The CCHD receives reports from labs, Infection Control Practitioners, hospitals, physicians, nurses, and schools. We identify trends, conduct surveillance, investigation, and follow-up.

    b) Depending on disease, CCHD provides treatment, partner treatment, and prophylaxis recommendations to prevent further spread of disease in the community.

    c) Depending on disease, CCHD notifies employee, employer, and/or school of work/school restrictions to prevent further spread of disease in the community.

    d) Immunizations to help prevent vaccine preventable diseases. CCHD provides US recommended vaccines as well as International travel vaccines.

    e) CCHD provides Lead hazards- Education, prevention, testing, and surveillance.

    f) CCHD has in place a Pandemic Influenza plan- education and mass vaccination/ prophylaxis in case of event.

    g) CCHD has in place a Bioterrorism Plan- education and mass prophylaxis in case of event.

2. Public Health

    a) CCHD inspects retail food service establishments and retail food stores. Discuss security issues with operators including deliveries, safe food handling, and products on display.

    b) CCHD investigates suspected food related incidents. Through epidemiological investigations determine common sources of reported illnesses whether it be the

food source, the product itself or handling procedures in coordination with illnesses reported by individuals or thru the IDNESS system.

c) CCHD conducts plan reviews and issues permits for new individual wastewater treatment and disposal systems and the repair of existing systems to insure the protection of the public health, ground and surface waters, and to help eliminate nuisance conditions.

d) CCHD identifies individual wastewater treatment and disposal systems which may create or are causing potential breeding sites for vectors which may transmit disease including West Nile virus, encephalitis, parasitic diseases, or bacterial diseases.

e) CCHD identifies individual wastewater treatment and disposal systems which are contaminating potable water sources.

f) CCHD identifies and monitors potential mosquito breeding sites in the rural areas and local communities.

g) CCHD applies larvacide to known breeding sites seasonally.

h) CCHD submits dead birds for laboratory analysis for the presence of West Nile virus.

i) CCHD conducts plan reviews and issue permits for the installation of potable water wells and water well repairs.

j) CCHD collects water samples from private water supplies and non-community, transit water supplies to check for bacterial and chemical contamination.

k) CCHD investigates suspected water related illnesses. Conducts epidemiological investigations to determine source of illnesses in coordination with illnesses reported by individuals or thru the IDNESS system.

l) CCHD responds to nuisance complaints to identify potential disease or vector situations as result of poor or inadequate property maintenance or improper storage and accumulation of waste.

E. PUBLIC TRANSPORTATION: Highway Incident

The following are ongoing and current activities directed toward highway incidents:

1. Safety Improvements Locations
   In 1999 the Illinois Department of Transportation issued the Top 25 Safety Improvement Candidate Locations throughout the State. This is available to all local entities for reference.

E-2. Hazardous Materials Accidents

The following are ongoing and current activities directed toward hazardous substance incidents.

1. Hazmat Team

The City of Charleston supports a State Hazmat Team. This team is capable of traveling throughout the State of Illinois in a Mutual Aid capacity. This team, along with the Effingham team, provides the Main Hazmat Support for 14 Counties in Illinois Homeland Security Region 17. The Charleston Team has over 60 members and is comprised of local firefighters, law enforcement officers, and safety personnel from Eastern Illinois University. The majorities of the members are trained to the technician level and attend annual continuing education to maintain and improve their skills.

2. County-wide Emergency Operations Plan

The Coles County Multi-hazard Emergency Operations Plan has been distributed to public officials and emergency responders in each community. The plan can be viewed at the Emergency Management Office. The plan contains Emergency Planning and a HAZMAT specific annex is being developed. This includes identification of facilities containing extremely hazardous materials and the vulnerable zones that, in the event of a chemical release, could affect the public. It also provides information for emergency response to a HAZMAT incident, reporting requirements, available resources & capabilities, maps and other valuable information.

3. Routine Hazmat training exercises

There are annual HAZMAT training exercises conducted through local Fire Departments as required through the Emergency Planning and Community Right to Know Act.

4. Cost Recovery Ordinance

Charleston and Mattoon have either adopted a cost recovery ordinance, or operate under the State of Illinois “Spiller Pay’s” ordinance.

5. Spill kits for trained Fire Departments

Local municipal fire departments, which train to HAZMAT operations level and have follow-up decontamination line and incident command training are offered funding for HAZMAT spill equipment that can be personalized to each fire department's needs. Through a DOJ terrorism grant, equipment and training for HAZMAT has been received. All local entities participate in the regional Hazmat team as mentioned above.

6. GIS/CAD

The County, in partnership with Charleston and Mattoon, has developed and updated its Geographic Information System. The GIS will be utilized with the FEMA HAZUS Program, this effort will greatly improve the mapping of facilities and vulnerable zones, as well as help first response times to incidents. The County-wide base map was completed in 2006.

7. Tire Disposal Program

This Illinois Environmental Protection Agency (IEPA) sponsored a used tire collection program, which, lessened the dangers of hazardous fires at dumpsites and protected the environment from illegally discarded tires. Recent funding challenges and budget constraints have reduced the State's ability to continue this program.

Used tires are a breeding source for mosquitoes, providing an ideal "incubator" for mosquito eggs and larvae. Adult mosquitoes lay eggs in improperly discarded tires filled with rainwater and organic materials (leaves and grass). Over the course of one breeding season, hundreds of mosquitoes can be generated from one tire. Since 1989, the IEPA Used Tire Program has cleaned up over 10 million used tires that were improperly discarded in Illinois. Residents from the local communities have benefited from the past "County sponsored" collections.

Additionally, the IEPA has a program to assist local townships and municipalities dispose of tires that have been illegally dumped.

8. Mutual Aid Agreements

Mutual aid agreements for Fire, Law Enforcement, Coles County EMA, Emergency Medical Service (EMS) are in place for major incidents. These services provide support services when for whatever reason one is in need of the other.

The Cities of Charleston and Mattoon also participates in the 'Mutual Aide Network' offering damage assessment for disaster situations.

IEMA is currently attempting to develop a state-wide pact similar to MABUS.

9. Household Hazard Waste Disposals Program

The Illinois Environmental Protection Agency (IEPA) provides funding for local Household Hazardous Waste (HHW) collections. These collections are designed to provide local residents with opportunities to properly dispose of HHW. The funds for these collections are provided through a competitive grant program. Coles County partnered with Charleston and Mattoon to sponsor a collection in 2001, and again on May 1, 2004. An application has been submitted for another collection event.

10. Evacuation Routes

Pre-identified and major intersections evacuation routes are mapped by the Coles County Emergency Management Office and copies are filed with the local law enforcement and emergency Response Agencies. These can also be found in the Emergency Operations Plan.

11. Incident Management Team

Currently Coles County has 4 Persons trained to the level of a Type 4 Incident Management Team. Three of these persons are currently members of the State of Illinois Team. Efforts are in progress to get a total of 12 persons to create a team for our County. The training involved includes the following:

IS 100, IS 200
IS 300, IS 400
IS 700, IS 800
Command and General Staff
All Hazards IMT
`Position Specific Training.

12. The LEPC is in the process of developing a HAZ MAT Response Plan which will be incorporated as an annex to the County Emergency Operations Plan (EOP).

F. PUBLIC UTILITIES: Communications Failure (911/Emergency Services)

Coles County CECOM, EMA and Mattoon PD maintain communication centers. All major Coles County communication centers have backup generator capabilities. The following are ongoing and current activities directed toward communications:

1. E9-1-1 capabilities.
   Enhanced E9-1-1 was implemented in Coles County in 1997.

2. Other Emergency services available at local phone numbers.
   This service is available to provide other emergency services at local phone numbers. All emergency calls go to 911- emergency agencies provide non-emergency lines.

3. Backup E 911 Answering Point Emergency Plan in place for 911 and long distance data.
   There is an emergency plan in place for 9-1-1 and long distance outage(s).
   ESDA has capabilities of radio dispatch to most county and municipal emergency agencies.

F-2. PUBLIC UTILITIES: Pipeline Failure

The following are ongoing and current activities directed toward avoiding pipeline failures:

1. The Northern / Central Illinois Pipeline Association provides Fire Departments Bi-annual training and a resource manual for all of those responders which have pipelines buried in heir respective communities. Departments are allowed to send different members to familiarize themselves with policy on pipeline incidents.

F-3. PUBLIC UTILITIES: Dam Failure

The following are ongoing and current activities directed toward avoiding dam failures:

1. Local communities have their dams inspected on an annual basis as a requirement of insurance coverage.

F-4. PUBLIC UTILITIES: Power Failure

The following are ongoing and current activities directed toward avoiding power outages:

1. The Coles County EMA, CECOM, and Mattoon PD are all provided with backup generators. EIU generates its own power and therefore, would likely not be affected by a power outage.

G. CIVIL DISTURBANCE / TERRORISM / NUCLEAR ACCIDENTS

The following are ongoing and current activities directed toward terrorism and/or civil disturbance:

1. Planning and Assessment.
   Local officials in Coles County have completed applications and several emergency response units in the County received funding for various kinds equipment to upgrade response capabilities. (Haz Mat supplies, radios etc). The funding was secured through the Department of Justice for such activities. Also a Terrorism Response Team has been put into place by the cities of Charleston, Mattoon, EIU, Law Enforcement, and EMA.

VII. Goals / Mitigation Recommendations

The development of the Goals and Mitigation Recommendations involved the entire HMP Committee. The process made use of the expertise of each Committee member and staff by reviewing the Hazards Analysis Section and identifying those hazards which appear to have the most impact on our community assets. The purpose was to achieve a 1:1 ratio when considering the cost to benefit analysis of each hazard and from this procedure, select or develop the proposed mitigation effort(s) that would most likely reduce the risk and/or impact of that particular hazard.

A. FIRE (Structural/Wildfires)

Goal: Reduce each community's and the rural area's vulnerability to fires.

1. Facilitate the distribution of knowledge about the best ways that businesses and residents can protect their buildings from fires through modernization, which may include sprinkler addition and the use of fire resistant materials.

   Implementation: The Building Departments of Charleston and Mattoon as well as the Fire Protection Districts of all participating entities of this Plan agree to implement this goal and activity contingent upon funding availability.

   Timeline: Approximately 9 months for initial efforts, on-going thereafter.

   Funding Sources: Local/ municipal general funds.

2. Consider updating building codes to include up-to-date fire resistant Building materials and technology uses.

   Implementation: The Building Departments of Charleston and Mattoon as well as the Fire Protection Districts of all participating entities of this Plan agree to implement this goal and activity contingent upon funding availability.

   Timeline: Approximately three to six months initial effort; on-going.

   Funding Sources: Local/ municipal general funds.

3. Explore incentive based programs to encourage residents and business owners to install such technologies when building or remodeling a structure. Incentives could include tax abatement until initial costs of improvements are recovered.

   Implementation: The Building Departments of Charleston and Mattoon as well as the Fire Protection Districts of all participating entities of this Plan agree to implement this goal and activity contingent upon funding availability

   Timeline: Approximately 9 months for initial efforts, on-going thereafter.

   Funding Sources: Local/ Municipal general funds.

4. Develop and effectuate activate burn bans when necessary to prevent unnecessary grass and wild fires.

Implementation: The Fire Protection Districts of all participating entities of this Plan agree to implement this goal and activity contingent upon funding availability.

Timeline: Approximately 9 to 12 months for initial efforts, on-going thereafter.

Funding Sources: Local general funds.

B. EARTHQUAKE

Goal: Reduce each community's and the rural area's vulnerability to earthquakes.

1. Ensure that Mattoon and Charleston building codes continue to comply with seismic standards.

Implementation: The Building Departments of Charleston and Mattoon agree to implement this goal and activity contingent upon funding availability

Timeline: Approximately 6 months for initial effort of review, on-going thereafter.

Funding Sources: Local/ municipal general funds.

C. WEATHER: Tornado / Thunderstorms (Wind/Hail/Lightning/Extreme Temperatures/Drought)

Goal #1: Ensure rapid notification and provide safe areas to residents in the event of a severe weather hazard event.

1. The local EMA and Mattoon PD are responsible for activating the outdoor warning system(s) in the event of a tornado warning for each community. In case the EMA cannot activate, ensure that 911 has backup capabilities for all warning systems.

Implementation: The participating entities of this Plan in cooperation of the County EMA agree to implement this goal and activity contingent upon funding availability.

Timeline: Approximately 12 months for initial efforts, on-going thereafter.

Funding Sources: Local/ municipal general funds as match to Federal grant funds.

2. Continue to utilize and upgrade cable access channels warning to residents.

   Implementation: The County EMA agrees to implement this goal and activity contingent upon funding availability.

   Timeline: On-going.

   Funding Sources: Local/ municipal general funds.

3. Encourage identification, development and continued maintenance of storm shelters in the community readily accessible to the public.

   Implementation: The participating entities of this Plan in cooperation of the County EMA agree to implement this goal and activity contingent upon funding availability.

   Timeline: Approximately 12-18 months for initial efforts, on-going thereafter.

   Funding Sources: Federal Mitigation funds (75%) Local/ municipal general funds (25%).

4. Install indoor warning systems in all municipal public gathering locations along with shelter recommendations to businesses and home owners.

   Implementation: The participating entities of this Plan in cooperation of the County EMA agree to implement this goal and activity contingent upon funding availability.

   Timeline: Approximately 12 months for initial efforts, on-going thereafter.

   Funding Sources: Federal Mitigation funds (75%) Local/ municipal general funds (25%).

5. Promote public education efforts to encourage "safe room" construction.

   Implementation: The participating entities of this Plan in cooperation of the County EMA agree to implement this goal and activity contingent upon funding availability.

   Timeline: Approximately 15-20 months for initial efforts, on-going thereafter.

   Funding Sources: Local/ municipal general funds.

6. Consider designating additional tornado shelter areas throughout the communities.

   Implementation: The participating entities of this Plan in cooperation of the County EMA agree to implement this goal and activity contingent upon funding availability.

   Timeline: Approximately 3-6 months for initial efforts, on-going thereafter.

   Funding Sources: Local/ municipal general funds.

7. Program Courthouse doors to open when the building is to be used as an emergency shelter.

   Implementation: Coles County in cooperation of the County EMA agree to implement this goal and activity contingent upon funding availability.

   Timeline: Approximately 1-2 months for initial efforts, on-going thereafter.

   Funding Sources: Local/ municipal general funds.

8. Encourage American Red Cross to expand list of emergency shelters in Mattoon, Charleston and rural areas; including warming/cooling centers during inclement weather.

   Implementation: The participating entities of this Plan in cooperation of the County EMA agree to implement this goal and activity contingent upon funding availability.

   Timeline: Approximately 9-12 months for initial efforts, on-going thereafter.

   Funding Sources: Local/ municipal general and Red Cross funds.

9. Consider evaluating new technologies, like effective call down systems and/or reverse 911 system as they become available to provide increased warning times.

   Implementation: The participating entities of this Plan in cooperation of the County EMA agree to implement this goal and activity contingent upon funding availability.

   Timeline: Approximately 15-20 months for initial efforts, on-going thereafter.

   Funding Sources: Federal Mitigation funds (75%) Local/ municipal general funds (25%).

10. Annually review siren coverage's and other warning systems to assure that residents are notified advance of potential events.

    Implementation: The participating entities of this Plan in cooperation of the County EMA agree to implement this goal and activity contingent upon funding availability.

    Timeline: Approximately 1-3 months for initial efforts, on-going thereafter.

    Funding Sources: Local/ municipal general funds.

11. Secure funding for installation of new, replacement and upgrading of current sirens and additional upgraded warning sirens.

    Implementation: The participating entities of this Plan in cooperation of the County EMA agree to implement this goal and activity contingent upon funding availability.

    Timeline: Approximately 12 months.

    Funding Sources: Federal Mitigation funds (75%) Local/ municipal general funds (25%).

Goal #2: Reduce potential damage to property from severe storm hazard events.

1. Promote the adoption of building codes requiring wind resistant construction techniques such as wall and roof anchoring, reinforcement of walls, ceilings, and floors, etc.

Implementation: Implementation: The Building Departments of Charleston and Mattoon in cooperation of the County EMA agree to implement this goal and activity contingent upon funding availability.

Timeline: Approximately 12-15 months for initial efforts, on-going thereafter.

Funding Sources: Local/ municipal general funds.

2. Encourage insurance companies to reduce rates if buildings are built to stronger building standards to withstand severe winds.

Implementation: Implementation: The Building Departments of Charleston and Mattoon in cooperation of the County EMA agree to implement this goal and activity contingent upon funding availability.

Timeline: Efforts will be on-going .

Funding Sources: Local/ municipal genera land private sector funds.

Goal #3: Minimize the effect that extreme weather can have on residents and the potential damage that can result from such events.

1. Develop an extreme temperature response plan to outline the best and most effective ways to serve population at risk (elderly, young, and disabled).

Implementation: The participating entities of this Plan in cooperation of the County EMA agree to implement this goal and activity contingent upon funding availability.

Timeline: Approximately 12-18 months for initial efforts, on-going thereafter.

Funding Sources: Federal Planning funds (50%) Local/ municipal general funds (50%).

C-2. WEATHER: Winter Storm (Blizzard/Ice/Extreme Temperatures)

Goal #1: Minimize the effect that severe winter weather can have on residents and the potential damage that can result from such events.

1. Promote the adoption of building codes that would provide for the strengthening roofs against collapse from snow accumulation.

Implementation: Implementation: The Building Departments of Charleston and Mattoon in cooperation of the County EMA agree to implement this goal and activity contingent upon funding availability.

Timeline: Efforts will be on-going .

Funding Sources: Local/ municipal general and private sector funds.

2. Evaluate the structural integrity of power lines, trees, signs, and other amenities that may become at risk of failure due to freezing or ice build up during severe winter weather.

Implementation: The participating entities of this Plan in cooperation of the County EMA agree implement this goal and activity contingent upon funding availability.

Timeline: Approximately 12 months; on-going thereafter.

Funding Sources: Federal Planning funds, Local/ municipal general funds and private sector funds.

3. Assure that roads are plowed promptly during snowstorms and that plow routes are continually evaluated for effectiveness.

Implementation: The participating entities of this Plan in cooperation of the County EMA agree implement this goal and activity contingent upon funding availability.

Timeline: Efforts will be on-going .

Funding Sources: Local/ municipal general funds.

Goal #2: Minimize the effect that extreme weather can have on residents and the potential damage that can result from such events.

1. Develop an extreme temperature response plan to outline the best and most effective ways to serve population at risk (elderly, young, homeless and disabled).

Implementation: The participating entities of this Plan in cooperation of the County EMA agree implement this goal and activity contingent upon funding availability.

Timeline: Approximately 12-18 months; on-going thereafter.

Funding Sources: Federal Planning funds (50%) Local/ municipal general funds (50%).

2. Expand availability of warming/cooling centers throughout the county.

   Implementation: The participating entities of this Plan in cooperation of the County EMA agree to implement this goal and activity contingent upon funding availability.

   Timeline: Approximately 12 months for initial efforts, on-going thereafter.

   Funding Sources: Local/ municipal general funds.

C-3. WEATHER: Flooding/Flash Flooding

Goal: Reduce each community's vulnerability to the impacts and damage associated with flooding.

1. Calculate and map the floodplain for the municipalities and the entire County with better accuracy using GIS (Geographic Information Systems). This action will continue our compliance with the NFIP.

   Implementation: The participating entities of this Plan in cooperation with IEMA/ FEMA agree to implement this goal and activity contingent upon funding availability.

   Timeline: Approximately 18-20 months for these efforts.

   Funding Sources: Federal Planning funds (50%) Local/ municipal general funds (50%).

2. Consider the development of a local flood warning system.

   Implementation: The participating entities of this Plan in cooperation with IEMA/FEMA agree to implement this goal and activity contingent upon funding availability.

   Timeline: Approximately 18-24 months for these efforts.

   Funding Sources: Local/ municipal general funds.

3. Ensure there is an adequate supply of road closures barricades for flood related emergencies.

   Implementation: The Coles County Highway Department in cooperation with IDOT agrees to implement this goal and activity contingent upon funding availability.

   Timeline: Approximately 6-9 months for initial efforts; on-going thereafter.

4. Relocation of homes/structures that experience repeat flood damage to locations outside the floodplain. This action will continue our compliance with the NFIP.

   Implementation: The participating entities of this Plan in cooperation with IEMA/FEMA agree to implement this goal and activity contingent upon funding availability.

   Timeline: Approximately 12-18 months; on-going thereafter.

Funding Sources: Federal Mitigation funds (75%) Local/ municipal general funds (25%).

5. Identify and address potential vegetation choke points in rivers and streams.

   Implementation: The participating entities of this Plan in cooperation with local drainage districts agree to implement this goal and activity contingent upon funding availability.

   Timeline: Approximately 9-12 months; on-going thereafter.

   Funding Sources: Federal Planning funds (50%) Local/ municipal general funds (50%).

6. Develop capacity figures for residential drainage ditches or creeks that are not located within the identified flood plain but are prone to flooding/flash flooding.

   Implementation: The participating entities of this Plan in cooperation with local drainage districts and IEMA/FEMA agree implement this goal and activity contingent upon funding availability.

   Timeline: Approximately 12-18 months; on-going thereafter.

   Funding Sources: Federal Planning funds (50%) Local/ municipal general funds (50%).

7. Consider utilizing SWCD services (i.e. site assessment) for development adjacent to City limits.

   Implementation: The Building Departments of Charleston and Mattoon agree implement this goal and activity contingent upon funding availability.

   Timeline: Approximately 3-6 months initial efforts; on-going thereafter.

   Funding Sources: Federal "SWCD" funds (50%) Local/ municipal general funds (50%).

8. Promote public education and awareness measures. Tools could include; public relations, information dissemination, public meeting and workshops, seminars, etc.

   Implementation: The participating entities of this Plan in cooperation of the County EMA agree to implement this goal and activity contingent upon funding availability.

   Timeline: Approximately 12-18 months; on-going thereafter.

   Funding Sources: Local/ municipal general funds.

9. Ensure drainage ditches, streams and rivers are monitored and debris / vegetation is removed which might otherwise cause choke points during flood stages and/or interfere with proper drainage.

Implementation: The participating entities of this Plan in cooperation with local drainage districts agree to implement this goal and activity contingent upon funding availability.

Timeline: Approximately 9-12 months initially; on-going thereafter.]

Funding Sources: Local/ municipal general funds.

10. Mattoon should consider the construction of regional detention pond(s) to address flooding issues in the southern portion of the City.

    Implementation: The City of Mattoon agrees to implement this goal and activity contingent upon funding availability.

    Timeline: Approximately 15-20 months.

    Funding Sources: Federal Mitigation funds (75%) Local/ municipal general funds (25%).

D. EPIDEMICS-DISEASE

Goal: Reduce all county resident's susceptibility to diseases and epidemic outbreaks.

1. Improve monitoring and tracking of reportable diseases and illnesses with assistance of County GIS.

   Implementation: The Coles County Health Department agrees implement this goal and activity contingent upon funding availability.

   Timeline: Approximately 3-6 months for initial efforts, on-going thereafter.

   Funding Sources: Local/ municipal general funds and/or staff time as needed.

2. Update ordinances in food sanitation and private sewage disposal to address improved technology and existing problems and deficiencies.

   Implementation: The Coles County Health Department agrees to implement this goal and activity contingent upon funding availability.

   Timeline: Approximately 6-9 months for initial efforts, on-going thereafter.

   Funding Sources: Local/ municipal general funds and/or staff time as needed.

3. Develop program and protocols for public notification of health issues through local and regional media in cooperation with east central and southern local health departments and their respective public information officers.

   Implementation: The Coles County Health Department agrees to implement this goal and activity contingent upon funding availability.

   Timeline: Approximately 9-12 months for initial efforts, on-going thereafter.

Funding Sources: Local/ municipal general funds and/or staff time as needed.

E. PUBLIC TRANSPORTATION: Highway Incident

Goal: Reduce the risk of damage and/or loss of life and other costs associated with accidents involving the transportation of persons or hazardous materials.

1. Promote and support EMS Vehicle extrication training and equipment.

   Implementation: The Charleston and Mattoon Fire Departments; as well as the Law Enforcement Agencies and Fire Protection Districts of the participating entities of this Plan; and the County EMA agree to implement this goal and activity contingent upon funding availability.

   Timeline: This effort is on-going.

   Funding Sources: Local/ municipal general funds matching any available grants.

2. Review positioning of ambulances within Charleston, Mattoon and Coles County for best response times.

   Implementation: The Charleston and Mattoon Fire Departments; as well as the Law Enforcement Agencies and Fire Protection Districts of the participating entities of this Plan; and the County EMA agree to implement this goal and activity contingent upon funding availability.

   Timeline: This effort is on-going.

   Funding Sources: Local/ municipal general funds and/or staff time as needed.

3. Review Fire and First Responder jurisdictions to promote best response times.

   Implementation: The Charleston and Mattoon Fire Departments; as well as the Law Enforcement Agencies and the Fire Protection Districts of the participating entities of this Plan; and the County EMA agree to implement this goal and activity contingent upon funding availability.

   Timeline: This effort is on-going.

   Funding Sources: Local/ municipal general funds and/or staff time as needed.

4. Consider a Hazardous Materials Transportation Route which will keep certain Hazardous Materials away from Target Hazards such as Schools and residential neighborhoods.

   Implementation: The Building and Public Works Departments of Charleston and Mattoon; as well as the Law Enforcement Agencies and Fire Protection Districts of the participating entities of this Plan; the County EMA; the County Highway Department in cooperation with IDOT agree to implement this goal and activity contingent upon funding availability.

Timeline: Approximately 9-12 months for initial efforts, on-going thereafter.

Funding Sources: Local/ municipal general funds and/or staff time as needed.

5. Reference Mitigation Goals and Recommendations - Part E-2 "Hazardous Materials Accident" below for additional recommendations.

   Implementation: The Building and Public Works Departments of Charleston and Mattoon; as well as the Law Enforcement Agencies and Fire Protection Districts of the participating entities of this Plan; the County EMA and the County Highway Department agree to implement this goal and activity contingent upon funding availability.

   Timeline: Approximately 9 months for initial efforts, on-going thereafter.

   Funding Sources: Local/ municipal general funds and/or staff time as needed.

E-2. Hazardous Materials Accidents

Goal: Reduce the risk of damage loss of life and other costs associated with accidents involving the transportation of hazardous materials.

1. Identify and enforce hazardous materials transportation routes development (highway, railroad, and pipeline) away from concentrated and special populations.

   Implementation: The DPW of Charleston and Mattoon; as well as the Coles County Highway Department (in cooperation with IDOT) and the County EMA agree to implement this goal and activity contingent upon funding availability.

   Timeline: Approximately 12-18 months for initial efforts, on-going thereafter.

   Funding Sources: Local/ municipal general funds and/or staff time as needed.

2. Utilize public education on hazardous materials safety, planning, reporting, evacuation, and sheltering in place.

   Implementation: The Building Departments of Charleston and Mattoon; as well as the Fire Protection Districts of the participating entities of this Plan and the County EMA agree to implement this goal and activity contingent upon funding availability.

   Timeline: Approximately 12 months for initial efforts, on-going thereafter.

   Funding Sources: Local/ municipal general funds and/or staff time as needed.

3. Development of safety inspections program for hazardous materials storage facilities.

   Implementation: The Building Departments of Charleston and Mattoon; as well as the Fire Protection Districts of the participating entities of this Plan and the County EMA agree to implement this goal and activity contingent upon funding availability.

Timeline: Approximately 9-15 months for initial efforts, on-going thereafter.

Funding Sources: Local/ municipal general funds and/or staff time as needed.

4. Promote development codes that require hazardous materials facilities to be built to withstand natural disasters and have monitoring and warning systems developed to detect and alert the public in the event of a release.

   Implementation: The Building Departments of Charleston and Mattoon; as well as the Fire Protection Districts of the participating entities of this Plan and the County EMA agree to implement this goal and activity contingent upon funding availability.

   Timeline: Approximately 15-24 months for initial efforts, on-going thereafter.

   Funding Sources: Local/ municipal general funds and/or staff time as needed.

5. Consider development of an automated notification system (Reverse 911) to notify all residents within a vulnerable zone of a HAZMAT facility that a release has occurred with information disseminated on evacuation or sheltering in place procedures.

   Implementation: The Coles County CECOM; as well as the First Responders of the participating entities of this Plan and the County EMA agree to implement this goal and activity contingent upon funding availability.

   Timeline: Approximately 12-18 months for initial efforts, on-going thereafter.

   Funding Sources: Local/ municipal general funds as match for any available grant funds.

6. Create a brochure to distribute to hazardous material transporters that outlines the safest and most preferred routes through and to various destination points in each community.

   Implementation: The Coles County EMA with the assistance of the County Highway Department agrees to implement this goal and activity contingent upon funding availability.

   Timeline: Approximately 9-15 months for initial efforts, on-going thereafter.

   Funding Sources: Local/ municipal general funds and/or staff time as needed.

7. Work with Hazardous Material response teams, Fire officials, Police officials and GIS technicians to determine response times to common destinations points.

   Implementation: The Coles County EMA with the assistance of the County Highway Department agrees to implement this goal and activity contingent upon funding availability.

   Timeline: Approximately 9-15 months for initial efforts, on-going thereafter.

   Funding Sources: Local/ municipal general funds and/or staff time as needed.

8. Work with IDOT Licensed Curriers and Railroads to obtain information about and quantities of hazardous materials that are routed within Coles County.

Implementation: The Coles County EMA with the assistance of the County Highway Department agrees to implement this goal and activity contingent upon funding availability.

Timeline: Approximately 9-12 months for initial efforts, on-going thereafter.

Funding Sources: Local/ municipal general funds and/or staff time as needed.

9. Conduct a survey of the transporters that pass though Coles County on our streets and rails.

Implementation: The Coles County EMA with the assistance of the County Highway Department and local municipal DPWs agrees to implement this goal and activity contingent upon funding availability.

Timeline: Approximately 12-18 months for initial efforts, on-going thereafter.

Funding Sources: Local/ municipal general funds and/or staff time as needed.

10. Expand Hazmat Capabilities by placing Hazmat equipment in a more accessible location. This is currently being addressed through planning at Charleston Fire by seeking funding for an addition to Station 1 and seeking funding for a 1 Ton Van for transportation needs.

Implementation: The Fire Departments of Charleston and Mattoon; as well as the Fire Protection Districts of the participating entities of this Plan and the County EMA agree to implement this goal and activity contingent upon funding availability.

Timeline: Approximately 18-24 months for initial efforts, on-going thereafter.

Funding Sources: Local/ municipal general funds and any available grant funds.

E-3. Railway Incident

Goal: Reduce the risk of damage and/or loss of life and other costs associated with accidents involving the transportation of persons or hazardous materials.

1. Add signs or crossing arms to "problem" crossings.

Implementation: The participating entities of this Plan in cooperation of the County EMA agree to implement this goal and activity by initiating dialogue with the railroad companies.

Timeline: Approximately 6-9 month; possibly on-going.

Funding Sources: Local/ municipal general funds.

2. Conduct a commodity flow study for hazardous materials along railroads through each community and rural areas.

   Implementation: The Coles County EMA with the assistance of the County Highway Department, local municipal DPWs and IDOT agrees to implement this goal and activity contingent upon funding availability.

   Timeline: Approximately 9-12 months.

   Funding Sources: Local/ municipal general funds to match any available planning grant funds.

3. Map out each crossing and the effects that different hazards will have on the surrounding areas, with different chemical spills etc.

   Implementation: The participating entities of this Plan and the County EMA agree to implement this goal and activity contingent upon funding availability.

   Timeline: Approximately 12-15 months.

   Funding Sources: Local/ municipal general funds and/or staff time as needed.

4. Reference Mitigation Goals and Recommendations - Part E-2 "Hazardous Materials Accident" above for additional recommendations.

   Implementation: The participating entities of this Plan and the County EMA agree to implement this goal and activity contingent upon funding availability.

   Timeline: Approximately 6-9 months for initial efforts, on-going thereafter.

   Funding Sources: Local/ municipal general funds and/or staff time as needed.

5. Conduct a survey of the transporters that pass though Coles County on our rails.

   Implementation: The participating entities of this Plan in cooperation of the County EMA agree to implement this goal and activity by initiating dialogue with the railroad companies.

   Timeline: Approximately 3-9 months.

   Funding Sources: Local/ municipal general funds and/or staff time as needed.

F. PUBLIC UTILITIES: Communications Failure (911/Emergency Services)

Goal: Minimize the vulnerability to communication failures and the potential impacts such failures could have on the residents of Coles County.

1. Develop and maintain a central "Back up Communications Center" for all first responders in the county.

Implementation: The Coles County Emergency Telephone System Board (ETSB) agrees to implement this goal and activity contingent upon funding availability.

Timeline: Approximately 6-12 months for initial efforts, on-going thereafter.

Funding Sources: Local/ municipal general funds and/or staff time as needed.

2. Research the availability of radios and/or cellular phones for large scale or long-term emergencies. Some cellular companies will provide cell phones in a disaster situation.

   Implementation: The entities of Charleston, Lerna, Mattoon and Oakland as well as Coles County and the County EMA agree to implement this goal and activity contingent upon funding availability.

   Timeline: Approximately 12 months for initial efforts, on-going thereafter.

   Funding Sources: Local/ municipal general funds and/or staff time as needed.

3. Promote the cross-training between Charleston, Mattoon, Coles County and volunteer emergency personnel.

   Implementation: The entities of Charleston, Mattoon, Coles County and the County EMA with the assistance of the LEPC agree to implement this goal and activity contingent upon funding availability.

   Timeline: Approximately 12-18 months for initial efforts, on-going thereafter.

   Funding Sources: Local/ municipal general funds and/or staff time as needed.

4. Consider the development and implementation of a County-wide Reverse 911 System.

   Implementation: The Coles County ETSB agrees to implement this goal and activity contingent upon funding availability.

   Timeline: Approximately 24-36 months for initial efforts, on-going thereafter.

   Funding Sources: Local/ municipal general funds and/or staff time as needed.

F-2. PUBLIC UTILITIES: Pipeline Failure

Goal: Minimize the vulnerability to pipeline failures and the potential impacts such failures could have on the residents of Coles County.

1. Promote the increased use of JULIE for all digging/trenching projects.

Implementation: The Building Departments of Charleston and Mattoon; as well as the Fire Protection Districts of the participating entities of this Plan agree to implement this goal and activity contingent upon funding availability.

Timeline: Approximately 3 months for initial efforts, on-going thereafter.

Funding Sources: Local/ municipal general funds and/or staff time as needed.

2. Ensure that local Fire Departments continue annual training and obtain a resource manual for all pipelines buried in heir respective communities as provided by the Northern / Central Illinois Pipeline Association.

Implementation: The Fire Departments of Charleston and Mattoon; as well as the Fire Protection Districts of the participating entities of this Plan and the County EMA agree to implement this goal and activity contingent upon funding availability.

Timeline: Approximately 3 months for initial efforts, on-going thereafter.

Funding Sources: Local/ municipal general funds and/or staff time as needed.

F-3. PUBLIC UTILITIES: Dam Failure

Goal: Minimize the vulnerability to dam failures and the potential impacts such failures could have on the residents of Coles County.

1. Maintain dams based on Federal and State regulations, where possible look for opportunities to remove dams to avoid the public health and environmental impacts associated with a dam break.

Implementation: The Communities of Charleston, Mattoon and Oakland agree to implement this goal and activity contingent upon funding availability.

Timeline: Approximately 3 months for initial efforts, on-going thereafter.

Funding Sources: Local/ municipal general funds and/or staff time as needed as well as use of any available grant funds..

F-4. PUBLIC UTILITIES: Power Failure

Goal: Minimize the vulnerability to power failures and the potential impacts such failures could have on the residents of Coles County.

1. Distribute information to residents on what do in case of a prolonged black out. Include where food, water and other supplies may be distributed or where to go for such information.

2. EMA should promote Family Preparedness Plans throughout the County.

Implementation: The Coles County EMA agrees to assist in the public education of this goal and activities (#1 and #2) as described above.

Timeline: Approximately 9-12 months for initial efforts, on-going thereafter.

Funding Sources: Local/ municipal general funds and/or staff time as needed.

G. CIVIL DISTURBANCE / TERRORISM

Goal: Minimize the vulnerability to Civil Disturbance/Terrorism and the potential impacts such activities could have on the residents of Coles County.

1. Review security of potential target facilities.

2. Increase training and capabilities for detection and response with emergency responders and hazardous materials teams.

3. Increase awareness and planning for government, individuals and industry.

4. Increase reporting and communications of disease outbreak by our public health community.

Implementation: The Law Enforcement Departments of Charleston, Mattoon and Oakland as well as the Coles County Sheriff's Office and the County EMA agree to implement this goal and above listed activities (#1 through #4) contingent upon funding availability.

Timeline: Approximately 3-9 months for initial efforts, on-going thereafter.

Funding Sources: Local/ municipal general funds and/or staff time as needed.

H. GENERAL RECOMMENDATIONS

1. Evaluate the creation of a county-wide volunteer Community Emergency Response Team (CERT).

Implementation: The entities of Charleston, Mattoon, Coles County and the County EMA through the LEPC agree to implement this goal and activity contingent upon funding availability. *NOTE: The local LEPC has initiated the development of the CERT Program in Coles County in 2009.*

Timeline: Approximately 12-18 months for initial efforts, on-going thereafter.

Funding Sources: Local/ municipal general funds and/or staff time as needed.

2. Ensure that CERT is properly trained to provide needed assistance when activated by the Coles County EMA.

   Implementation: The entities of Charleston, Mattoon, Coles County and the County EMA through the LEPC agree to implement this goal and activity contingent upon funding availability.

   Timeline: Efforts will be, on-going.

   Funding Sources: Local/ municipal general funds and/or staff time as needed.

3. Coles County EMA should continue to sponsor annual preparedness fair.

   Implementation: The County EMA with assistance from the LEPC agrees to implement this goal and activity contingent upon funding availability.

   Timeline: Efforts will be on-going.

   Funding Sources: Local/ municipal general funds and/or staff time as needed.

4. Seek to develop and implement a Reverse 911 System for the entire County.

   Implementation: The Coles County ETSB agrees to implement this goal and activity contingent upon funding availability.

   Timeline: Approximately 24-36 months for initial efforts, on-going thereafter.

   Funding Sources: Local/ municipal general funds and/or staff time as needed; as well as utilization of any available grant funds.

VIII. Plan Implementation and Maintenance

Coles County and its municipalities utilize a number of plans and documents in its effort to govern their respective jurisdictions. The HMP should be used in conjunction with or be incorporated into many of these existing documents and processes. Some of these documents include:

Federal Response Plan
State of Illinois Emergency Operations Plan
Regional Hazardous Mitigation Mutual Aid Agreements
Coles County Emergency Operations Plan
Individual Community Emergency Response Plans
Local Fire, Police, EMS and Emergency Management Mutual Aid Agreements
Local Cost Recovery Ordinances
Local Municipal and County Comprehensive Land Use Plans

To effectively implement the HMP, local entities will make efforts to assimilate the HMP into the local community planning structures; this process should be done to have minimal impact on the established procedures. Incorporating the Plan should achieve a number of beneficial results. One primary benefit is that there would result in a potentially greater influence on the location, type and characteristics of growth within the County and/or its municipalities. Additionally, the Comprehensive Planning process is an established activity and already familiar to many residents throughout the County.

Further, the HMP Committee intends to continue their partnership with the Coles County LEPC and provide representation at its quarterly meetings. At such meetings HMP Committee representatives will compare action items with the LEPC in order to avoid duplication of efforts. This process could also offer opportunities to incorporate mitigation efforts into other local plans.

Monitoring

Coles County will submit progress reports to IEMA on a quarterly or semi-annually basis. The reports will note information such as any changes to the hazards analysis and/or vulnerability as well as track the progress of implementation of the plan.

Evaluation

The evaluation process assesses goals, objectives, and current/expected conditions; change in the nature or magnitude of risks; current resources for implementation; mitigation action item outcomes; and whether agencies and other partners participated as originally proposed.

The information in the progress reports will be evaluated prior to the HMP update (scheduled for 5 years after adoption), polling the noted changes as identified in the progress reports and utilize this information for the basis of the HMP update.

Public Participation

Copies of the HMP will be on file and made available to public review via local libraries, city and village halls, the Coles County Courthouse as well as copies being made available to EIU and Lake Land College. Regular review of the HMP is essential to ensure accurate evaluation of data and effective and timely efforts. The local entities shall solicit public input for any future updates. This can be obtained via legal notices inviting the general public to attend meetings specifically addressing the HMP update. Further, an e-mail address list of interested parties will be developed and notified of future updates. The County is currently developing and updating its website. The goal is to list all public meetings on the website once it is completed; any HMP update meeting will also be listed on this site.

The future reviews of the HMP should consider some of the following criteria:

1. Potentially new data on hazard areas
2. Evolving effects of hazard on the Community
3. Changes in Community Growth Patterns
4. Reductions in Vulnerability due to Completion of Recommended Mitigation Activities

For the HMP to be truly effective it is important to remember that the HMP is intended to help guide local efforts in minimizing the impact of hazard events to critical facilities and community assets. The plan will continue to be evaluated and updated annually during the five-year cycle process and anytime there is a disaster.