

Greene County Risk Assessment: Hazard Analysis

Natural Hazards

The Office of Emergency Management updated the nine Natural Hazard Profiles from the 2004 Mitigation Plan. This process included reviewing each profile, adding additional data for the past four and a half years and filing in any missing information that was unavailable at the time the plan was written. For the most part, the contextual nature of the profiles did not change. The most significant changes made to the profiles were in the Historical Statistics section.

Nevertheless, Greene County did experience several declared disasters since the last Mitigation Plan, and those events are reflected in their appropriate Natural Hazard Profile. If there was an opportunity for an expert to read and evaluate a profile, the Office of Emergency Management did so. Experts were consulted from the Missouri Department of Natural Resources for the Earthquake Profile, the Springfield-Greene County Health Department for the Extreme Heat Profile, the Storm Water/Ground Water Management Programs in the City of Springfield and Greene County for the Dams and Droughts profiles.

The Office of Emergency Management Staff used the Historical Statistics in conjunction with the advice of the aforementioned experts to update, revise or confirm that the appropriate rankings for the hazard categories had been assigned.

The National Weather Service created a Climate Assessment for Greene County for warm and cold seasons. Those documents are included in this section on p.3-3 and p.3-4.

Man Made Hazards

Being that this was the first time for this type of hazard to be included in the Mitigation Plan, the researchers incorporated Historical Statistics from local, state, national and international events to sufficiently describe how a man made hazard may be harmful. To sufficiently research this category of hazards, the 2009 Greene County Multi-Jurisdictional Mitigation Plan identifies eight types of hazards: Chemical, Biological, Nuclear, Radiological, Explosives, Civil Disorder, Technological and Waste. These hazard profiles encompass both intentional and unintentional uses of their respective types of warfare, as well as describe how each hazard may be harmful to the area.

Identified Hazards for Greene County

Greene County Hazards	
Natural Hazards	Man-Made Hazards
Dams	Chemical Hazards
Droughts	Biological Hazards
Earthquakes	Radiological Hazards
Extreme Heat	Nuclear Hazards
Flooding	Explosives
Land Subsidence (Sinkholes)	Civil Disorder
Thunderstorms/Tornadoes	Technological Hazards
Wildfires	Waste
Winter Storms	

The table above lists all identified hazards that are in or affect Greene County. While some counties within our region are at risk for levy failure and landslides, these are not applicable hazards for Greene County. First, Greene County simply does not have any levy or major river requiring a levy thereby eliminating levy failure as a hazard for the county. Second, Greene County has never experienced a landslide and there is no data to suggest that it is an applicable threat. At this time, these two hazards are excluded. Should there be any concerns that develop prior to the next update; the planning committee will ensure the hazards are addressed in the next update process.

County-Wide Hazards

The Wildfire Hazard Profile discusses the impact of the 2007 Ice Storm in Greene County. Due to a significant amount of debris from the storm, along with the urban and farm lands intertwining throughout the county, it was impossible to ascertain any elevated or differentiation of risk level for each jurisdiction. Thus, at this time, it is considered to be a county-wide hazard. The planning committee hopes that more detailed information and assessments will be available for the next update.

Hazard Profile Enhancements for the Next Hazard Mitigation Plan Update

There are several studies being done at this time that will provide data to enhance the content of the hazard profiles and may affect their hazard rating. Unfortunately, these studies are ongoing and the data is not yet available. The hazards that are affected are:

1. Dam Failure;
2. Flooding; and
3. Land Subsidence.

Regarding the Dam Failure Hazard Profile, there will eventually be tools capable of demonstrating how the dams will harm each jurisdiction which will vary the vulnerability percentages and hazard profile ratings. However, that data is not available for this update. The planning committee considers dam failure a county-wide hazard at this time because of the county's reliance on the dams for its water supply. The next update of the mitigation plan should have more detailed information regarding each jurisdiction's threat and vulnerability to this hazard.

At this time, the Flooding Hazard Profile is in the same predicament as the Dam Failure Hazard Profile. The planning committee did not have the capability to produce detailed maps and projects for how the bodies of water in the area, along with the topography, may increase or decrease each jurisdiction's threat and vulnerability to flooding. Further, Greene County's largest threat with flooding is flash flooding. The 100 Year Floodplain Map and other resources that may help tailor the threat and vulnerability assessments for the jurisdictions are currently in the updating process. This information should yield are more definite and accurate rating for each jurisdiction for the next update of the Hazard Mitigation Plan.

Finally, there has not been an updated study or count of sinkholes since the initial 2004 Hazard Mitigation Plan. As referenced in the Land Subsidence Hazard Profile, sinkholes are currently considered a county-wide hazard. Should a new count or more detailed information become available to identify jurisdiction-specific threats, the data will be included in the next update. For the 2009 Hazard Mitigation Plan Update, it was unavailable.

National Flood Insurance Protection (NFIP)

Listed below please find the figures for the number of NFIP policies in Greene County and their respective insurance value totals, as reported by the NFIP Bureau of Statistical Agent (2009):

Unincorporated Greene County

142 Policies; Insurance Value of \$33,884,800

City of Springfield

230 Policies; Insurance Value of \$44,732,200

City of Ash Grove

6 Policies; Insurance Value of \$444,600

City of Republic

33 Policies; Insurance Value of \$5,296,500

City Rogersville

7 Policies; Insurance Value of \$2,240,000 (some of these policies may be in Webster County as Rogersville is a multi-county jurisdiction).

City of Strafford

1 Policy; Insurance Value of \$280,000

City of Walnut Grove

1 Policy; Insurance Value of \$15,000

City of Willard

14 Policies; Insurance Value of \$1,659,700

The City of Battlefield does not participate in the NFIP. The City of Fair Grove did not have any policies listed.