Hazard Mitigation Plan Outline for Mississippi

Name:

Institution:

Hazard Mitigation Plan Outline for Mississippi

There are various hazards that plague Mississippi including severe storms, flooding, hurricanes, tornados, and earthquakes (Lindell, 2013).

The community's disaster history

Severe storms, flooding, hurricanes, tornados, and earthquakes are common across Mississippi and have been a regular feature of the state for more than a century. For example, tornados form when violent thunderstorms occur with sufficient instability and wind shear in the lower atmosphere. It is important to note that the United States experiences more tornados than any other country on earth with Mississippi having one of the highest numbers of tornados annually. It is a common occurrence in Mississippi to read about a tornado causing property damage, injuries and even deaths.

What is mitigation and why is a mitigation plan necessary?

Mitigation is as defined by FEMA and PEMA as any cost-effective action that has been taken to reduce or eliminate the long-term risks to life and property from both technological and natural hazards. A mitigation plan is essential to avoid the worsts of natural or technological disasters especially the loss of life.

How was the plan prepared?

The plan was prepared by observing the current hazards that affect Mississippi area and prioritizing them in order of their prevalence and cumulative damage. In addition, the plan considered the present resources and capabilities of the community to ensure that the plan is suited for them. Once this was done, it is just a matter of selecting the appropriate measures and implementing them.

How did you obtain your information?

The information used in the development of the hazard mitigation plan will be obtained from academic articles and journals, periodicals for reports and government reports.

The goals and objectives of the mitigation plan?

The goals and objectives of the hazard mitigation plan are to allow the community to react to tornados in a fast, efficient manner in order to minimize damage to property, injuries and eliminate loss of life.

2. Community and Hazard Exposure Profile

Community population

As of 2014, Mississippi had a total population of 2.994 million people with around half of the population living in urban areas.

Miles of roads

Mississippi is relatively well networked with roads that are designed in a grid-like pattern in the usual US Route Numbering Scheme. This effectively means that an average resident of the state will have easy access to the road in the case of an emergency.

Airports

Mississippi has numerous airports that can be divided into the primary airports such as Columbus and Jackson, the non-primary airports such as Greenville and Tupelo, reliever airports such as Olive Branch, and general aviation airports such as Belmont. In addition, there are other non-public airports such as private-use airports, and military airports within the state.

Manufacturing plants

Mississippi is a host to numerous companies, but the number is not significant enough to affect a tornado hazard mitigation plan.

Military bases

The state has two Army bases; Camp Shelby Army Base In Hattiesburg and Mississippi Ordinance Plant Army Base Monroe County.

Hospitals and Schools

Mississippi has numerous hospitals and schools that would serve as emergency centers in the case of a significant hazard. These schools and hospitals are also relatively well distributed across the state meaning that they can be used as rallying points for the hazard mitigation plan.

Dams

The state has several dams and locks that seek to utilize rivers such as Mississippi River to control flooding or economic activities.

3. List of possible community hazards

Tornados

A tornado is basically a violently rotating column of air that commonly appears as a funnel originating from a storm cloud with the narrow end touching the ground. Tornadoes can be very fast moving achieving speeds of 300 miles per hour. The Fujita Scale is used to measure the damage does by tornados. While most tornados do not become powerful and are harmless, the powerful tornados can rip out trees and even tear buildings from their foundations. Therefore, the powerful tornados are very destructive and can lead to significant loss of life if people are caught unawares.

Earthquakes

An earthquake can be described simply as a noticeable shaking of the surface of the earth that can vary in strength and intensity. Most earthquakes are mere tremors and hardly noticeable, but the powerful ones have the ability to destroy entire cities. Fortunately, powerful earthquakes are relatively rare in Mississippi. Earthquakes are very destructive if powerful leading to

significant loss of life and destruction of property. Furthermore, they tend to destroy existing infrastructure such as roads, electricity lines, water and gas mains among others leading worsening their effects.

Flooding

This is the overflow of water onto dry land. Flooding is relatively common in some areas of Mississippi and causes damage to property such as houses. However, in most of the incidences, the floods are predictable, and people can be warned in advance. The floods also take longer to dissipate as opposed to other hazards such as tornados and therefore may have longer lasting effects. Finally, in Mississippi floods are typically controlled through the building of dams, levees and locks on rivers to regulate them.

4. Hazard Vulnerability analysis and frequency chart

The chart and list matrix will be developed with the addition of more data on the frequency, intensity and community preparedness for each hazard. This will be completed in the final paper as the outline lacks the data.

5. Your community's capability assessment

The local law enforcement authorities and fire agencies outside major towns in Mississippi are not sufficient for large-scale disaster management operations. However, the state has disaster reservists under Mississippi Emergency Management Agency whose role could prove crucial in disaster management. The EMS capabilities, ambulance services, and hospitals can be expanded in emergencies to handle a potential influx of injured in the case of an emergency. Due to the regular occurrences of typhoons, severe storms, and flooding, the state has weather alerts and emergency notification through messages to all residents.

6. Recommended Mitigation Measures.

The recommended mitigation measures include the development of a greater reaching early warning systems, organization, and training of the emergency reservists to supplement local authorities.

7. Conclusion

The paper will conclude with an examination of all the aspects of hazard mitigation as outlined in the textbook with an emphasis on Mississippi State.

References

Avery, G. H. (2013). A Need for Emphasis on Local Leadership in Emergency Management. Journal of Bioterrorism & Biodefense, 2014.

Darsey, D. A., Carlton Jr, F. B., & Wilson, J. (2013). The Mississippi Katrina experience: applying lessons learned to augment daily operations in disaster preparation and management. South Med J, 106(1), 109-112.

Parisi, V. R. (2013). Federal Emergency Management Agency (FEMA). *Encyclopedia of Natural Hazards*, 321-322.

Lindell, M. K. (2013). Emergency management. *Encyclopedia of Natural Hazards*, 263-271

Lopez-Llompart, P., & Kondolf, G. M. (2016). Encroachments in floodways of the Mississippi River and Tributaries Project. *Natural Hazards*, *81*(1), 513-542.

Noble, K. T., White, C., & Turoff, M. (2014). Emergency Management Information System Support Rectifying First Responder Role Abandonment During Extreme Events. *International Journal of Information Systems for Crisis Response and Management (IJISCRAM)*, *6*(1), 65-78.

Smith, D. J., McShane, C., Swinbourne, A., & Henderson, D. J. (2016). Towards effective mitigation strategies for severe wind events. *Australian Journal of Emergency Management, The*, *31*(3), 33.

Richardson, D. J. (2015). Major disaster assistance from the Disaster Relief Fund: state profiles.