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# BEFORE DISASTER STRIKES: AN ANALYSIS OF EMERGENCY MANAGEMENT PLANNING

b	y
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A thesis submitted to the faculty of The University of Mississippi in partial fulfillment of the requirements of the Sally McDonnell Barksdale Honors College.

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#### Abstract

BEFORE DISASTER STRIKES: AN ANALYSIS OF EMERGENCY MANAGEMENT PLANNING (under the direction of Joseph Holland)

I have always been inspired by the outpouring number of volunteers that arrive to the scene of a natural disaster, ready to help in any way possible. With or without adequate training, these people arrive with warm hearts and helping hands. I admire their valiant efforts, however, it has prompted me to ask the question: If our citizens can respond so quickly in times of adversity, how are city governments preparing spontaneous volunteers for emergency management planning?

The intent of this thesis is to properly evaluate the emergency management plans implemented in the cities of Baton Rouge, LA, Spokane, WA, and Oklahoma City, OK. The thesis will demonstrate that disaster policy is a complex issue and approaches to disaster response vary. Likewise, government regulations often hinder opportunities aimed at creating uniformity among emergency management operations. Despite this challenge, the utilization of spontaneous volunteers during disaster is an area of great opportunity as it is exempt from many of these regulatory constraints. To employ this important resource in a coordinated and consistent manner would add tremendous value to disaster response efforts.

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#### **Chapter 1-Introduction**

Within my lifetime, I have witnessed many news reports televising the harsh effects of uninvited catastrophic disasters that have negatively affected our country. From the tragedy of 9/11, to the substantial increase in mass shootings, it has been painful to watch the effects of these events. I personally have experienced one of these traumatic encounters: Hurricane Katrina. Although the aftermath was unspeakably awful in many areas across the Gulf Coast, including my hometown, I was able to gain a small source of positivity and realization through the wreckage: the power of a helping hand. It was incredible to witness neighbors and community members valiantly joining together to assist those around them. For a moment in time, we were united for a greater good, irrespective of race, religion, socioeconomic status, or political ideology. Indeed, Hurricane Katrina was a terrible storm, but it taught me a valuable life lesson that I still carry with me today, and ultimately, was the inspiration behind my thesis. Former President Ronald Reagan echoed these sentiments when he stated: "We can't help everyone, but everyone can help someone ("Ronald Reagan Quotes," 2018)."

In August of 2016, the state of Louisiana experienced tremendous rain and record flooding. Through social media, an electrician named Timmy Toups realized that his neighbors, friends, and community members were desperate for assistance as their homes became engulfed with water. Mr. Toups and his friends immediately acquired his boat and waded through the flooded streets, supplying resources to those in need and rescuing

the victims from their submerged homes. The efforts of this small group of men resurrected an organization known as the "Cajun Navy" that previously operated following the events of Hurricane Katrina. Today, the organization has greatly expanded, and they respond with urgency to the needs of others affected natural disasters. The mission of the Cajun Navy is one that is noble and strong and adequately reflects their actions: "We don't wait for the help, we are the help! We the people of Louisiana refuse to stand by and wait for help in the wake of disasters in our state and the country. We rise up to unite and help rescue our neighbors. Our mission is to help the people who can't get help, not only in the wake of disaster, but in everyday life ("Louisiana Cajun Navy," 2018)." These statements embody the meaning of spontaneous volunteerism: motivation from people who see a need and decide to take action.

The Federal Emergency Management Agency (FEMA) defines spontaneous volunteers as neighbors or ordinary citizens that "arrive on-site at a disaster ready to help" ("Managing Spontaneous Volunteers", 2018). However, FEMA states that because they are not affiliated with the existing federal emergency management response team, their exertions can often be unfavorable to the organization's efforts. FEMA outlines the balance of the intentions of spontaneous volunteers in conjunction to the agency's protocols with this quote: "The paradox is clear: people's willingness to volunteer versus the system's capacity to utilize them effectively". ("Managing Spontaneous Volunteers", 2018)The heart and the inspiration of spontaneous volunteers is quite admirable, but the practicality and productiveness are difficult to determine when evaluating their works from an organizational outlook. Thus, the argument of this research is that the government is not preparing communities for spontaneous volunteers.

Recently, the Cajun Navy travelled to North Carolina to assist in the efforts following the aftermath of Hurricane Florence. With their boats, supplies, and equipment, the group came to the aid of 160 citizens who were found on the roofs of their homes as well as atop of their cars ("Armed with boats," 2018). This included a total of 57 rescue missions, with 2-3 persons being saved during each. However, the Cajun Navy was not the only group of informal volunteers who dashed to the scene of this disaster. Frank's Nation, whose namesake is a bulldog that unfortunately succumbed to the horrible effects of Hurricane Harvey, arrived to North Carolina to search for lost dogs left behind in the storm ("Frank's Nation," 2018). David Scherff, the foundation's organizer, assembled a customized trailer that served as a command center and vehicle for dog transport. Additionally, Task Force 75, a band of veterans from across the nation, brought its team to North Carolina to aid in disaster management operations as well ("Here's How You Can Help," 2018). Their goal was to assist in rescue efforts for both people and animals left stranded in the storm's aftermath; these teams included search and rescue, animal rescue, first aid personnel, and humanitarian assistance. Within the 12 days of their efforts, Task Force 75 worked over 1,800 hours, rescued and evacuated 7 persons, and sheltered and cared for 125 animals.

These organizations represent the overwhelming power of spontaneous volunteers who exhibit great skill and expertise within the role of disaster response. Although I admire the causes and motivations of the groups mentioned, I cannot help but wonder, what if the affected communities in North Carolina had citizens who were trained to respond to this disaster? Moreover, where is the local government in response to this devastation?

As I began my research searching for more information to support this thesis, one article listed on the Federal Emergency Management Agency's Citizen Corps website specifically caught my attention. The study was titled "Citizen Corps Behavior Change Model for Disaster Preparedness," and it expressed the motivational factors and barriers that contribute to disaster response ("Citizen Corps Behavior Change Model for Disaster Preparedness," 2006). Although it contained a plethora of valuable information, the article was seeking to address only one simple question: "Why aren't Americans better prepared for disasters?" This inquiry was sincerely thought-provoking, but I do not believe that it necessarily addresses the problem that is at hand. Instead of asking, "Why?", Americans should be asking "How?": how are city governments preparing spontaneous volunteers for emergency management planning? This specific and direct question is the impetus and motivation behind this research.

As previously stated, in almost every undesirable and disastrous situation, bystanders are often the first responders. Regardless of their experience, it is evident that these spontaneous volunteers have a heart to serve and assist people during times of need and extreme stress. Their efforts, although limited and not without flaw, are quite admirable. In addition to their magnanimous attitudes, spontaneous volunteers can be a tremendous resource in terms of timely manpower. It is not uncommon for many of these volunteers to be skilled and trained, as their motivation to participate are often driven by past experiences, such as construction work or employment within the medical field. However, it is pertinent to note that although these volunteers possess good intentions and crucial skills, they certainly can provoke chaos and incite harm during times that are already extreme and difficult.

Many Americans are benevolent and compassionate, and when tested, are quite resilient; more often than not, we are willing to offer help to a neighbor in need.

Therefore, it is imperative that we empower our citizens with the knowledge and tools necessary to adequately respond in times of disaster, and furthermore, hold our governments accountable for their regulatory authority in disaster response and recovery. The intent of my thesis is to provide a thorough analysis of the emergency management planning programs from a sampling of communities in the United States: Baton Rouge, LA, Spokane, WA, and Oklahoma City, OK. Through this examination, it is my goal that others can benefit from the findings in order to offer better approach response methods when an unforeseen disaster occurs.

Chapter 2 will present the history of disaster policy. This chapter will provide readers with a background knowledge that is necessary to better understand disaster policy. In Chapter 3, I will discuss the methodology used in my research. Following, Chapter 4 will present the findings from the research by comparing program snapshots. Finally, Chapter 5 will provide policy implications and recommendations for stakeholders to utilize within their communities,

#### **Chapter 2-Background of Emergency Management**

Federal disaster assistance in the United States began in 1803. The catastrophe was not a Category 5 hurricane or a bloody war, but rather a devastating fire in New Hampshire ("Introduction to International Disaster Management", 2010). After the effects of this fire, the Congressional Act of 1803 was enacted in order to give sufficient finances to restore the town. This first example exemplifies the meaning of disaster efforts and volunteerism: no matter the size or the significance, everyone matters. However, it was not until the 1930s that our government truly involved itself in emergency management.

#### 1930s-1940s

On January 22, 1932, Congress enacted the creation of the Reconstruction Finance Corporation (RFC) ("Reconstruction Finance Corporation", 2018). Originally implemented to provide monetary aid for railroads, businesses, and financial institutions, the need for a form of federal disaster aid was recognized ("About the Agency", 2018). In July of the same year, the Emergency Relief Act of 1932 was passed, and the corporation was designated to distribute loans specifically for the repair and reconstruction following earthquakes. With the success of this program, the Reconstruction Finance Corporation (RFC) grew and expanded its protocol to assist financially in the aftermath of other natural disasters. Additionally, in 1934, the Bureau of Public Roads was instructed to fund destroyed highways and bridges, an in cooperation with the RFC, was able to revive demolished infrastructure across our nation.

Furthermore, following the Great Depression, President Franklin Delano Roosevelt implemented a series of solutions entitled the New Deal to elevate America from its financial distress. In 1933, the Tennessee Valley Authority (TVA) was included as one of these resolutions. Although this agency was funded and directed by the government, President Roosevelt desired the TVA to be an entity with the "flexibility and initiative of a private enterprise ("The 1930s," 2018). Although the organization did not directly aid disaster efforts, TVA produced hydroelectric power within the region, and most importantly, reduced a significant amount of flooding in the area.

However, the Tennessee Valley Authority was not the only disaster aid efforts that President Roosevelt implemented. In 1939, he signed the order to integrate the Office of Emergency Management. The function of this new installation was to "advise and assist" the President in any situation that would threaten the "public peace or safety" of the United States (Executive Order 8629, 1939). Furthermore, the Office of Emergency Management provided our nation with an overarching branch that oversees the direction of disaster relief activities.

Moreover, the need for emergency management grew in the immediate years succeeding the Great Depression. This policy sector slowly evolved in 1947 as Congress ordered the War Assets Administration and the Federal Works Agency with the duty of supplying federal surplus resources to areas in need. Following this demand, in 1950, the Housing and Home Finance Administration would carry out the necessities of disaster relief until a more concrete and equipped organization could be created ("History of Federal Disaster Policy", 2018).

#### 1950s

During the 1950s, the United States experienced the devastation of the Cold War years. As the fear of a nuclear war hovered, America realized the essentiality of expanding our civil defense efforts ("Review of Historical Trends in Emergency Management," 2018). Across the nation, civil defense programs were established in almost every community, which included a civil defense director to head the efforts. These directors proved to have an array of experience, as most were retired military officials. Due to the panic and awareness from our nation's citizens, in December of 1950, President Harry Truman signed the executive order that created the United States' first emergency management organization: the Federal Civil Defense Administration (FCDA) ("Introduction to International Disaster Management", 2010).

Under the President's executive order, the FCDA was commanded with the task to provide shelters, assistance, and training programs to American citizens in case such a horrific attack was to occur. Although under a minimal budget, the FCDA was able to provide materials such as pamphlets and films to the general public. The main goal of this organization, however, was to empower the people of the United States with the tools and education necessary to respond to nuclear warfare.

Additionally, Congress passed the Disaster Relief Act of 1950. Although not a direct disaster aid organization, the act and its amendments allocated funds to provide assistance to areas influenced by disaster. Originally, the act was designed to reconstruct local government properties, but the legislation evolved to address the need of emergency housing and supplies within affected areas of our country ("History of Federal Disaster Policy", 2018). The Disaster Relief Act would prove to be very timely in the subsequent years of its enactment.

Thankfully, the 1950s passed by without a nuclear strike, but hurricanes demonstrated to be detrimental to many areas of our country. In 1954, a Category 4 storm, Hurricane Hazel, invaded the states of Virginia and North Carolina ("Introduction to International Disaster Management", 2018). The following year, Hurricane Diane rampaged up the East Coast. However, Hurricane Audrey caused the most damage, hitting Louisiana and Texas brutally during the summer of 1957. The storm is ranked as the 7th deadliest hurricane in U.S. history, accounting for at least 500 deaths in the region ("Hurricane Audrey", 2018). During this time period, the only manner in which the government could assist the affected areas was through legislation, such as the Disaster Relief Act, because a specific disaster aid organization still had not been created. Realizing the growing need for an emergency management agency, the United States implemented progressive measures in the following decade.

#### 1960s

In 1961, President John F. Kennedy established the Office of Emergency Preparedness within the nation's executive branch ("History of Federal Disaster Policy", 2018). The agency was charged with the responsibility of assessing the nation's natural disasters, and of course, its establishment was punctual and convenient. Hurricanes continued to destruct many regions in the country. In 1965, Hurricane Betsy invaded Florida and the Gulf Coast, growing into a Category 4 storm. Hurricane Betsy would be one of the costliest storms in our nation's history, and she became the first hurricane to acquire damages that exceeded over \$1 billion, gaining her the name "Billion Dollar Betsy" ("Hurricane Betsy", 2018). A few years later in 1969, Hurricane Camille would affect the southeastern region in a tremendous way. Hurricane Camille expanded to a

Category 5 storm by the time she made landfall, becoming one of three hurricanes to ever reach that level on United States' soil ("Hurricane Camille", 2018).

Due to these impactful storms, especially that of Hurricane Betsy, flooding became a hot issue. Many American citizens were without flood insurance, as it was expensive and difficult to obtain under a standard homeowner policy ("Introduction to International Disaster Management", 2010). Thus, in 1968, Congress authorized the National Flood Insurance Program. Through this entity, citizens "in communities where private insurers did not provide coverage" were given the ability to obtain flood insurance ("History of Federal Disaster Policy", 2010).

In addition to hurricanes, an unprecedented set of other natural disasters occurred during this period. In 1962, the Ash Wednesday Storm tore through the East Coast.

Along its way, the storm created new inlets and caused tremendously high tides for three days. The aftermath left residents with mass destruction and over \$300 million of damages ("Introduction to International Disaster Management", 2010). Moreover, in 1964, a catastrophic earthquake occurred in Alaska's Prince William Sound. Measuring 9.2 on the Richter scale, the earthquake prompted tsunamis to occur along the Pacific Coast. As a result, 123 people were killed by the event.

The combination of these disasters continued to spark the conversation for emergency management within our country. As the 1970s approached, an expansion of this field was recognized. Our government would develop an agency that would dramatically alter the management of disaster relief and response within the nation.

#### 1970s

On February 9, 1971, a massive earthquake hit the San Fernando region in California. The quake ranked a moderate 6.6 on the Richter scale, but its effects proved to

be ruinous. With 65 lives lost, it was the third most deadly earthquake in the state, as well as the second most costly earthquake in property damage ("The 1971 San Fernando Earthquake", 1971). Three hospitals were heavily impacted, unfortunately causing more victims due to their destructions. Although earthquakes were to be expected in this region, no one could have foreseen the damage that would ensue, thus, leaving little preparation for disaster response.

Despite the aftermath of the San Fernando earthquake, the government continued to make progress toward emergency management efforts. Following the National Flood Insurance Act, Congress passed the Flood Disaster Protection Act of 1973 ("About the Agency", 2018). This legislation required the purchase of mandatory flood protection in any region designated as a Special Flood Hazard Area (SFHA). A SFHA was classified as any area that has been deemed a 100-year or 500-year flood zone ("Flood Disaster Protection Act of 1973", 2018). The intent of the Flood Disaster Protection Act was to secure zones vulnerable to floods in order to reduce costly and detrimental effects for surrounding citizens.

Shortly thereafter, after unanimous agreement in both the House of Representatives and the Senate, President Richard Nixon enacted the Disaster Relief Act of 1974 ("Disaster Relief Act of 1974", 2018). Its passage empowered and supported the process of presidential disaster declarations ("About the Agency", 2018). The act would allow the President the authority to more feasibly execute the administration's approach toward forthcoming disasters in the United States.

Although more progressive measures to disaster response had been enacted, the need for a comprehensive agency was still apparent. At this point within the decade, more than 100 federal organizations were responsible in performing emergency management

duties. With President Jimmy Carter as the new head of our nation's executive branch, the National Governor's Association approached the highest office in order to reduce the number of agencies and "centralize federal emergency functions" ("About the Agency", 2018).

In conjunction with Congress, President Carter established the Federal Emergency Management Agency (FEMA) on June 19, 1978 ("Introduction to International Disaster Management", 2010). Through its enactment, FEMA was able to provide our country with one singular entity dedicated to the management of emergency preparedness, response, recovery, and mitigation. Furthermore, the organization was appointed a director that would report its status and progress to the President. As the nation's new organization for disaster relief efforts, FEMA absorbed many federal ad hoc agencies such as the Federal Insurance Administration, the National Fire Prevention and Control Administration, the National Weather Service Community Preparedness Program, the Federal Preparedness Agency of the General Services Administration, and the Federal Disaster Assistance Administration ("About the Agency", 2018).

The establishment of FEMA presented the country with an answer to the many problems that arose following disasters. No longer would Congress have to continually rely on creating new legislation in order to address the needs of emergency management. The subsequent decade of FEMA's enactment would prove to demonstrate the strength and capabilities of the organization.

#### 1980s-1990s

In the early 1980s, the United States was not disturbed by any substantial natural disasters. However, a threat well known to American emerged once again. Nuclear attack was placed as a top priority, and the concerns and direction of FEMA followed suit. In

1982, President Ronald Reagan selected General Louis O. Guiffrida as director of FEMA ("Introduction to International Disaster Management", 2010). The general's expertise included knowledge and experience in the realm of terrorism preparedness and training, and consequently, he charged FEMA with the incredible responsibility to prepare the country for any possible nuclear attack. Due to this new focus, resources and funding slowly depleted from the states' authority in order to empower security at a national level.

However, trouble would soon find itself at the center of FEMA's humble beginnings. The ethics of Gen. Giuffrida and his administration posed concerning questions ("Introduction to International Disaster Management", 2010). As U.S. Representative Al Gore brought these inquiries to the Science and Technology Committee, the Department of Justice began to thoroughly examine the intentions and actions of Gen. Guiffrida and the agency. In the end, Gen. Guiffrida was found guilty of misuse of government funds and was forced to resign.

In search for another leader of FEMA, President Reagan turned to another military official to head the agency, General Julius Becton ("Introduction to International Disaster Management", 2010). This choice proved to be highly influential in reviving FEMA's status and credibility. With his background as Director of the Office Foreign Disaster Assistance at the State Department, Gen. Becton continued to promote citizen preparedness at the agency and expanded its duties to aid the Department of Defense (DOD) with chemical clean-up at army bases. However, in spite of FEMA's cooperation with the DOD, this caused major political turmoil as the organization was highly reliant on the relationship, thus, hindering progress within the entity. Additionally, Gen. Becton ranked FEMA's programs based on importance. It was established that earthquakes,

hurricanes, and flood programs were lesser in comparison to the agency's other twenty programs. This shortcoming in judgment would become quite apparent in the latter years of the 1980s.

Now a senator, Al Gore once again called FEMA out on its missteps. He disagreed with the priorities of the organization and referenced a scientific study that predicted possibly 200,000 casualties if an earthquake occurred on the New Madrid fault ("Introduction to International Disaster Management", 2010). Thus, the National Earthquake Hazards Reduction Program, created by Congress, ordered for FEMA to develop an appropriate agenda designed to respond to tumultuous earthquakes. Fortunately, this would eventually lead to the creation of the Federal Response Plan for the organization. Another addition to America's disaster policy would be the implementation of the Robert T. Stafford Disaster Relief and Emergency Relief Act ("About the Agency", 2018). Through this legislation, presidential declared disasters could receive prompt financial and physical assistance from FEMA through government-coordinated relief efforts. However, even with a more powerful authority and added assistance from Congress, FEMA would soon be tested and experience an unforeseen series of catastrophic events.

On September 22, 1989, Hurricane Hugo made landfall on the American mainland, fiercely striking both North Carolina and South Carolina ("Hurricane Hugo", 2018). Hugo resulted in over \$15 billion in damages in addition to 86 deaths ("Introduction to International Disaster Management", 2010). It was the costliest hurricane at this time and the worst storm in over a decade. This event should have been FEMA's opportune time to prove its competency, but the organization failed due to its

lack of communication at the state level. Even a personal phone call from South Carolina Senator Ernest Hollings did not prompt FEMA to act in a rapid or effectual manner.

Amidst the 1989 World Series in Oakland Stadium, the Loma Prieta Earthquake transpired on October 17 in the San Francisco area ("San Francisco Earthquake of 1989", 2018). Twenty-six minutes prior to the first pitch, the quake shook the stadium while on live television. The structure withstood the seism, but the rest of the region was not as fortunate. The earthquake was one of the most destructive to ever hit the area, costing over \$5 billion in damages ("San Francisco Earthquake of 1989", 2018). Once again, FEMA was impugned for its absence of preparedness and response.

A few years later, Hurricane Andrew would strike Florida, and later Louisiana, on August 24, 1992 ("20 Facts About Hurricane Andrew", 2012). Although it began as a tropical wave off the coast of Africa, Andrew would grow to a massive Category 5 hurricane, and the U.S. was not prepared for its wrath. Demolishing 25,524 homes and causing damage to 101,241 others, the effects of the storm were largely due to "inadequate" building codes and inspections ("20 Facts About Hurricane Andrew", 2012). However, Andrew would not be the last hurricane to terrorize the nation, as Hurricane Iniki would make landfall in Hawaii on September 11 ("Hurricane Iniki", 2018).

Iniki would live up to its name, meaning sharp and piercing winds, as the hurricane would be the most destructive and powerful storm to ever hit the island.

Undeniably, FEMA's attention and response to hurricanes and earthquakes had been deficient, based on previous experiences of this kind. As expected, FEMA was inefficient and slow to respond once again, and as a result, President George H. W. Bush

ordered the Secretary of Transportation, Andrew Card, to head the relief efforts in Hawaii ("Introduction to International Disaster Management", 2010).

Hurricane Hugo, the Loma Prieta Earthquake, and Hurricane Andrew revealed flaws and weaknesses within FEMA's organizational structure. To contend with these natural catastrophes, Congress appropriated funds from the Community Development Block Grant Disaster Recovery program - utilized for Presidentially declared disasters in typically low-income areas - to aid in recovery and rebuilding ("History of Federal Disaster Policy", 2018). In 1993, President Bill Clinton recognized the faults of FEMA and appointed James Lee Witt as its director in an effort to revitalize and restore the agency ("Introduction to International Disaster Management", 2010).

James Lee Witt would be the first Director of the organization to have past experience in emergency management, as he had previously led the Arkansas Office of Emergency Services ("James Lee Witt", 2018). Through his leadership, Witt would build credibility and establish state partnerships at the agency. Because of his efforts, Witt "is credited with turning FEMA from an unsuccessful bureaucratic agency to an internationally lauded all-hazards disaster management agency" ("James Lee Witt", 2018). While Witt exhibited tremendous success, he and the organization would encounter obstacles of natural disaster along the way.

In 1993, nine states in the Midwest were inflicted by an incredible amount of flooding ("Introduction to International Disaster Management", 2010). FEMA's response to this event was one of precaution and protection rather than reaction. The agency called for a mass relocation program during the time period, thus evacuating citizens from the harmful effects. This was the first success exhibited under Director Witt's tenure. Shortly thereafter, the Northridge Earthquake of 1994 shook this region of

California ("Introduction to International Disaster Management", 2010). The quick turnaround did not seem to confound the new leadership at FEMA. Due to strengthened building codes following the San Fernando earthquake, as well as the agency's development and implementation of new service delivery technology, casualties were significantly reduced ("1994 Northridge Earthquake", 2018). Once again, Director Witt and his organization solidified the significance and achievement of FEMA's new direction.

However, 1995 would introduce a new disaster threat to our nation: terrorism. The Oklahoma City Bombing sparked the conversation of which entity would lead our country in the protocol and aftermath of these types of events. FEMA sparked controversy as they did not immediately assume the responsibility. Many believed that the agency was the most equipped to handle these attacks, and their reluctance to accept the role was quite disappointing. Although the domain of FEMA certainly invokes an "all-hazards approach," the organization simply lacked the resources and expertise to handle the effects of chemical, biological, and other miscellaneous weaponry ("Introduction to International Disaster Management", 2010).

Despite the confusion and debate regarding the authoritative figure for terrorist attacks, FEMA continued to pursue their mission of ensuring Americans' safety. On November 22, 1999, the organization implemented Project Impact: Building A Disaster-Resistant Community ("Project Impact", 2018). Following the flooding left by Hurricane Floyd, FEMA noted the magnitude of the many altered lives left in the aftermath of the storm. While natural disasters and their effect are difficult to predict, the impact can be greatly reduced through preventative measures. With the establishment of Project Impact, FEMA sought to emphasize this idea by promoting "total community involvement"

through empowering the program's partners (such as local government officials, civic organizations, and citizens), assessing the community's risk of natural disasters, identifying priorities and goals, and educating the community on disaster protocol and information ("Project Impact", 2018). Project Impact was well-received by Congress and the nation alike and provided substantial momentum for the agency as the new millennium approached.

#### 2000's

With the election of George W. Bush, the President appointed a new Director to head FEMA, Joe Allbaugh. The Director's first major order of business would be the recreation of the Office of National Preparedness, which was abolished under Director Witt's administration ("Introduction to International Disaster Management", 2010). However, the sector would take on the hefty responsibility of terrorism response, finally charging a government entity with its accountability. The Office of National Preparedness' new duty was certainly a step in the right direction, but unfortunately, no measures could have prepared the nation for the events that occurred on September 11, 2001.

On that horrendous day, the agency enacted its Federal Response Plan and carried out its operations as efficiently and quickly as possible. FEMA's response demonstrated the competence and growth of the organization, but additional action was required. The following year, President Bush signed the Homeland Security Act on November 25, 2002 ("Introduction to International Disaster Management", 2010). The legislation created the Department of Homeland Security (DHS) and integrated twenty-two federal agencies under its jurisdiction, including FEMA ("Who Joined DHS", 2018).

The strength of the new department and its entities would be tested during the late summer of 2005. Hurricane Katrina made landfall as a Category 4 hurricane along the Mississippi and Louisiana Gulf Coast on August 29, 2005, resulting in catastrophic structural devastation and physical casualties. Not anticipating the damage and destruction from a storm of this magnitude, FEMA was grossly unprepared and cited a number of failures. When the levees broke in New Orleans, the organization disregarded the reports of this disastrous event from its sole staffer in the area; conclusively, the city would later be 80 percent under water ("11 years after Katrina", 2016). In addition, FEMA was unaware for three days that hundreds of residents were trapped in the flooding with no supplies at the local convention center ("11 years after Katrina", 2016). In the midst of FEMA's response and rescue to the tragedy of New Orleans, the agency rejected and discarded assistance from other resources. The Department of Interior was denied personnel, as well as Louisiana's Wildlife and Fisheries department's donation of 300 rubber boats ("11 years after Katrina", 2016). Furthermore, FEMA's missteps continued throughout the recovery stage, as makeshift trailers were awarded to those who lost their homes. The intent of these trailers was to provide temporary lodging for 18 months before a permanent replacement could be replenished ("11 years after Katrina", 2016). However, this goal would not withstand as the trailers would diminish over a span of years, with the last trailer left being utilized until 2012 ("11 years after Katrina", 2016).

FEMA would learn from its mistakes and seek to improve its measures with President Bush's signing of the Post-Katrina Emergency Reform Act of 2006 ("Post-Katrina", 2018). The order called for a reorganization of the agency and mandated for FEMA to fill the "gaps" that Hurricane Katrina revealed ("Post-Katrina", 2018). Such

improvements included a registry system dedicated to reuniting separated families and a devotion to precautionary evacuations ("Post-Katrina", 2018).

#### **Current Federal Emergency Management**

Since the event of Hurricane Katrina, the government has realized the significance of learning from its shortcomings in the midst of disasters. For example, in 2012, President Obama acknowledged the degree of Hurricane Sandy and sought to remedy its effects through his order of a specified Rebuilding Task Force. The task force was designated to develop "model resilience policies for vulnerable communities" and encourage preventive measures ("History of Federal Disaster Policy", 2018).

Additionally, our nation seeks to aid those who are hurting and in need. In 2014, the Department of Housing and Urban Development issued the National Disaster Resilience Competition in order to award \$1 billion to eligible communities that need to "recover from prior disasters and improve their ability to withstand and recover more quickly from future disasters" ("National Disaster Resilience Competition", 2015). While it should be noted that our government has both succeeded and failed in its disaster-related endeavors, the mission statement of FEMA still boldly stands and continues to be the motivation for the unforeseeable situations our nation faces: "helping people before, during, and after disasters" ("About the Agency", 2018).

Inspired by FEMA's mantra, this thesis seeks to analyze the emergency management plans that are created and carried out before, during, and after disasters. Specifically, the research is driven by the argument as to whether or not cities government can appropriately manage the influx of spontaneous volunteers in conjunction with their emergency management operations. The United States' disaster policy has grown significantly in the last century and has continued to do so with the

culmination of FEMA. However, it is important to hold our local governments accountable and push them in order to enhance emergency management approaches, and most significantly, save more lives.

#### **Chapter 3-Methodology**

The next chapter will follow a document review model. Utilizing this approach, I collected data from a set of existing documents from emergency management offices. The purpose of a document review is to gather background information in order to understand the "operation of the program you are evaluating and the organization in which it operates" ("Evaluation Briefs No. 18", 2009). Furthermore, I have accessed emergency management documents from three cities, evaluated their plans, and summarized my findings ("Evaluation Briefs No. 18", 2009). From the information collected, I will present my recommendations and conclusions regarding the emergency management plans selected.

In 2014, FEMA executed a series of case studies entitled "Preparedness Grant Case Studies." Through the studies, the agency evaluated how urban areas across the United States utilized homeland security grants. FEMA selected programs that have benefitted from this aid and offered information regarding the programs' outcomes. The programs' focus includes a diverse range of disasters, such as tsunamis, hurricanes, and tornadoes. FEMA accredits the selection of the programs to "a mix of homeland security non-disaster grant programs, to ensure geographical diversity, and to link grant investments with recent events" ("Preparedness Grant Case Studies", 2014). Ten case studies were performed highlighting projects in eight U.S. communities: Denver, CO, Seattle, WA, Oklahoma City, OK, Spokane, WA, Grays Harbour County, WA, Lafourche Parish, LA, Baton Rouge, LA, and the Chafee, El Paso, Lake, Park, Teller Counties of Colorado.

Utilizing their case study model, I investigated emergency preparedness plans among a chosen group of these eight areas. I assessed their programs to convey the effectiveness of their emergency management preparedness. To conduct my research, I limited the analysis to cities rather than communities. I then generated the five remaining cities into an online randomizer in order to narrow my investigation to three cities. The randomizer then numbered the cities 1-5, from which it selected three. The finalized cities include: Baton Rouge, LA, Spokane, WA, and Oklahoma City, OK.

Furthermore, I analyzed documents from the cities' Department of Homeland Security websites in order to gather information about their preparedness plans. Each city's department contains thorough Emergency Operations Plans, including sections and additional material specifically pertaining to emergency preparedness methods. Based on my findings, it is my hope that the preparation procedures evaluated can adequately be applied to other communities who experience similar natural disasters within their region.

#### **Chapter 4-Findings**

## Case #1: Baton Rouge, LA

The city of Baton Rouge, LA, presents an Emergency Operations Plan which can be accessed through the Mayor's Office of Homeland Security and Emergency Preparedness (MOHSEP). The document consists of thirty-eight pages and is divided into the following sections: Purpose and Scope, Situation and Assumptions, Concept of Operations, Organization and Assignment of Responsibilities, Direction and Control, Continuity of Government, Administration and Logistics, Plan Development and Maintenance, Authorities and References. In addition to the Emergency Operations Plan, MOHSEP has launched a campaign entitled "Red Stick Ready" to promote specific educational programming including all aspects of emergency management preparedness regarding hazard, family, business, kid, pet, and whole community preparedness. Table 1 provides an overview of MOHSEP's preparedness operations.

#### **Baton Rouge Emergency Operations Plan**

The Baton Rouge Emergency Operations Plan (EOP) is divided into the following sections: Purpose & Scope, Situation & Assumptions, Concept of Operations, Organization & Assignment of Responsibilities, Direction & Control, Continuity of Government, Administration & Logistics, and Plan Development & Maintenance. To begin, the Purpose and Scope section provides basic and necessary information about its role and the community. The purpose of the EOP is found within the first line and states that the document is "an overview of the key function and procedures that State or Local

agencies will accomplish during an emergency, including the roles that Local, State, Tribal, Federal, and private agencies will take to support local operations" ("Basic Plan", 2018). Furthermore, the EOP illustrates the landscape and characteristics of the area through the Situation & Assumptions section. East Baton Rouge Parish, where the city of Baton Rouge is located, is bordered by three integral waterways: the Mississippi River, the Amite River, and Bayou Manchac, with an elevation level of 69 feet above the Gulf of Mexico sea level ("Basic Plan", 2018). Additionally, the EOP highlights its susceptible hazards as well as its resources and assets. Besides national security threats, the community is vulnerable to the effects of the following natural disasters: hurricanes, floods, tornadoes, and earthquakes. However, the EOP boldly states that it contains the resources necessary to assess these disasters, such as "man power, equipment and skills of the governmental agencies, medical, health and allied professions and groups, and knowledge of survival actions possessed by the public" ("Basic Plan", 2018). Further, the section concludes that the extent of natural disasters that could affect the area are largely unprecedented, but MOHSEP assures the public that they possess the resources and capabilities to effectively subdue and manage the circumstances.

Within the next section, Concept of Operations, the EOP outlines a general overview of responsibilities and actions. The Mayor-President of Baton Rouge is first and foremost the authority on emergency preparedness operations, and the Office of Homeland Security and Emergency Preparedness Director assumes the role as his or her Chief of Staff during times of disaster. However, if the aftermath and consequences exceed the capabilities of their department, parish forces will act, and the Federal Government will allocate appropriate support to the State. An interesting component of the operations plan includes the call of local volunteers. Specifically, the EOP states that

"it may be necessary to draw on people's basic capabilities and use them in areas of greatest need" ("Basic Plan", 2018).

A significant portion of the Concept of Operations section dictates the structure and obligations of the entities within the department when an emergency occurs. This includes:

- 1. The Incident Commander (Mayor) and his or her staff
- 2. Finance and Administration
- 3. Logistics
- 4. Operations
- 5. Planning

The Incident Commander and his crew are charged with the responsibility of controlling the situation, ensuring the safety of endangered citizens, securing emergency responders, and conserving property. Essentially, this sector organizes the activities and measures needed for the operation. In addition to the Incident Commander, there are three staff members essential to the operation: the Safety Officer, the Public Information Officer, and the Liaison. The Safety Officer adequately gauges the extent of the disaster at hand and employs the accommodating procedures. The Public Information Officer and the Liaison are fundamental within the scope of communication. The Public Information Officer gathers the correct data regarding the disaster and response efforts in order to relay it to the media. He or she is responsible for the broadcast of public actions such as evacuations. Moreover, the role of the Liaison is to correspond and interact with other agencies critical to the emergency management team and its operations.

The Departments of Finance and Administration, Logistics, Operations, and Planning assist in the details, specifics, and acquisitions necessary for the intended

disaster response. Through the Finance and Administration team, appropriate resources are acquired to sustain the event and its estimated cost is calculated and recorded. These staff members manage and secure assigned financial assets during emergency response and recovery efforts. The Logistics department at its core "provides services and support systems to all organizational components involved in the incident" ("Basic Plan", 2018). This includes the procurement of resources such as medical aid, stress debriefing, supplies, equipment, and facilities. Furthermore, the Operations team is stationed within the command post and carries out the "tactical objectives" set in place by the Incident Commander ("Basic Plan", 2018). The staff is responsible for assuring that the operation is run smoothly and efficiently. Lastly, the Planning sector is influential in the decision-making process of the emergency. They are tasked with researching past disasters and actions in accordance with the ongoing event. The staff ensures that the strategic plan is up to date with the situation at hand and predicts its potential outcomes.

An important note within the Concept of Operation Section highlights the entity, Louisiana Capital Area Volunteer Organizations Active in Disasters (LCAVOAD). The LCAVOAD is charged by MOHSEP with the coordination of volunteer agencies, spontaneous volunteers, and donations. The organization states that its mission is "to enhance the effectiveness of service providers and stakeholders who help communities prepare for, respond to, and recover from disasters, with the overall purpose of lessening the impact of disasters" ("Louisiana VOAD", 2019). Furthermore, their doctrine is inspired by cooperation, communication, coordination, and collaboration ("Louisiana VOAD", 2019). Based on these ideals, LCAVOAD conducts activities to encourage the community, advocates for certain public policies beneficial to disaster efforts, and promotes proven and leading practices available through providing services. With its

partnership with the LCAVOAD, MOHSEP is able to utilize the organization's strengths and complete its operations with greater efficiency.

The Organization & Assignment of Responsibilities assigns the roles of local, state, tribal, federal, and private agencies to assist during times of disaster. From Animal Control to Volunteer Organizations, MOHSEP lists every partnered organization that has offered their services and resources. The EOP specifies a few federal departments that collaborate in these emergency management functions, such as the United States Coast Guard. However, MOHSEP largely utilizes its resources at the local and state level. These organizations and agencies span from a variety of sectors, including the Louisiana Department of Environmental Equality, the Parish Attorney, the Baton Rouge River Center, and the Capital Area Transit System. Additionally, the local school boards and universities cooperate and manage emergency communications with MOHSEP. While it is admirable that MOHSEP engages with many organizations, there is a fault that lies within this section. The EOP states that tribal agencies are represented within the Organization & Assignment of Responsibilities, however, there is no evidence of the collaboration. This is not only a shortcoming in regard to the EOP's credibility, but it fails to account for a population.

Under the Direction and Control Section, the powers of Baton Rouge's emergency management are dictated. Civil Defense Ordinance No. 8434 authorizes all emergency operations and allows for the Mayor-President and the Director of MOHSEP to enact the functions they deem appropriate for the situation ("Basic Plan", 2018). A crucial component of their responsibilities includes the decision for evacuation under severe conditions. It is noted that the Mayor-President and Director will implement the proper protocol to make this declaration, but during this process, the law enforcement and

fire department have the authority to begin evacuation measures if "immediate threat to life and property is imminent" ("Basic Plan", 2018). Additionally, the address of the Emergency Operations Center is listed, but the EOP assures that there are alternate channels and locations, such as the Mobile Command Post, that can be invoked when necessary.

The Continuity of Government section illustrates essentiality of establishing the relocation of government, the preservation of records, and the lines of succession at both the local and state government levels. The EOP emphasizes that "effective comprehensive emergency preparedness operations" rely on the survival of these functions ("Basic Plan", 2018). These measures preserve the viability and success of the government during an emergency as leadership is affirmed and important documents are protected.

The Administration and Logistics section accounts for the protocols and procedures implemented once a disaster has been detected or has occurred. The EOP commences the segment by calling attention to agreements and understandings. If the local government is incapable of supplying the resources necessary for their emergency management operations, requests will be made to "other local jurisdictions, higher levels of government, and other agencies" for assistance ("Basic Plan", 2018). However, these affiliations and terms have already been established, allowing for more efficient response and relief efforts from these entities. The EOP also assures the public that they follow the proper guidelines in the areas of consumer protection, nondiscrimination, administration of insurance claims, duplication of benefits, use of local firms, and preservation of historic properties. Most importantly, the sections detail the subject of information collection and dissemination. It is the intent of MOHSEP to alleviate "confusion,

misinformation, and rumors" through accurate data and notifications ("Basic Plan", 2018). However, the unpredictability of disasters can alter the accessibility and distribution of information, and the EOP stresses the importance of awareness and preparedness for cases such as this.

Through the Plan Development & Maintenance section, the Director of MOHSEP designated the obligation of emergency planning. He or she will guide the disaster response efforts as well as inform the Mayor-President, East Baton Parish Metropolitan Council, department directors, and other officials of MOHSEP's emergency preparedness plans and the EOP. To conclude the document, it is stated that the Mayor-President or the Director are authorized to enact the Plan upon their order ("Basic Plan", 2018). Further, an overview of this section can be found in Table 1:

Table 1. Baton Rouge Emergency Management Plan Overview

Plan Leadership	Lead Agency: Mayor's Office of Homeland Security and Emergency Preparedness
	(MOHSEP)
	Chief of Staff: Office of Homeland Security and Emergency Preparedness Director
	Essential Staff: Safety Officer, Public Information Officer, Liaison
Plan Organization	Purpose and Scope
	Situations and Assumptions
	Concept of Operations
	Organization and Assignment of Responsibility
	Direction and Control
	Continuity of Government
	Administration and Logistics
	Plan Development and Maintenance
	Authorities and References
Disasters	National Security Threats
Anticipated	Natural Disasters (hurricanes, floods, tornados, earthquakes)
Disaster Rating	Plan does not stage disasters
Resource	Local and state resources
Utilization	Federal resources only if necessary
Volunteer	Louisiana Capital Area of Volunteer Organizations Active in Disaster (LCAVOAD)-
Management	coordinates volunteer agencies, spontaneous volunteers, and donations
Disaster	Red Stick Ready – an all hazard education and preparedness program to empower citizens
Preparedness	

#### **Red Stick Ready**

An extension of Baton Rouge's Emergency Operations Plan is the Red Stick Ready campaign. Baton Rouge translated from French means "Red Stick", which is the inspiration behind the initiative's title ("What Is Red Stick Ready?", 2019). The program was created in the spring of 2005 and cites the events of Hurricanes Katrina and Rita as a learning experience for its growth and development. The mission of Red Stick Ready is to encourage "the community to take personal responsibility with the necessary items and plans in place when a disaster or emergency strikes" ("What Is Red Stick Ready?", 2019).

The Red Stick Ready campaign empowers its citizens with preparedness plans designated for all hazards, families, kids, pets, and businesses. The program is intentional toward community outreach and hosted a "Red Stick Ready Day" at the Mall of Louisiana in the summer of 2018 ("Public Outreach", 2019). The event promoted public safety precautions and informed the community about MOHSEP's emergency management efforts. An integral component of the education is its easy to follow, locally available flyers and handouts. Red Stick Ready informs the community of the top ten potential hazards to the area: flooding, hurricanes, tornadoes, pandemic, severe weather, winter weather, cyber incidents, extreme heat, fires, and hazardous materials ("All Hazards Preparedness", 2019). Each incident is accompanied with direction to FEMA resources or a detailed flyer specific to that disaster. The campaign heavily focuses on extreme heat, hazardous materials, hurricanes, severe weather, and tornadoes, and includes handouts that educate the public on the expectations before, during, and after the specified disaster.

Red Stick Ready's family preparedness planning asserts the significance of creating both an emergency communications plan and a disaster supply kit for the household. The Red Stick Ready website offers a printable template for one to write beneficial information pertaining to their family and well-being. The document includes spacing for pertinent medical information and emergency contacts. Additionally, it provides a section for other valuable phone numbers, such as the police department, hospital, pharmacy, and veterinarian. The other crucial element of the family preparedness plan is the acquisition of disaster supplies. Red Sticky Ready advocates for the "72-hour supply kit" to be assembled for each family member ("Family Preparedness", 2019). Although the supplies are up to the family's discretion, the integral resources of the kit include 1-15 gallons of water per day, food, medication, money, personal documents, batteries, flashlights, and chargers ("Family Preparedness", 2019). The campaign also suggests that nonessential items, such as games and clothes, be integrated into the kit.

Moreover, the Red Stick Ready campaign administers a kid's preparedness model. It is comprised of activity books, coloring books, and online games that are both engaging and educational. These materials emphasize the importance of recognizing when a disaster is imminent, understanding the resources available for utilization, and the importance of securing contacts for parents and other essential individuals. Red Stick Ready also issues a call to join the local Junior Community Emergency Response Team (Jr. CERT). The program employs first responders to train youth in the community on emergency preparedness efforts ("JR CERT", 2019). The goal of Jr. CERT is to equip participants with the tools necessary to prepare for an emergency, in hopes that they in

turn will pass along valuable information they have learned to family members, friends, and others.

The program highlights that pets are indeed a part of the family, too. As discussed with family preparedness, Red Stick Ready advises pet owners to prepare a disaster supply kit for their pets as well. Suggested items include a pet carrier, harness, leashes, collars, ID tags, food, water, treats, toys, medications, waste disposal supplies, and photo IDs of each pet with their pet owner ("Pet Preparedness", 2019). Red Stick Ready also offers helpful tips to ensure the pet's security; for example, the campaign advises that if able, the owner should arrange for the pet to stay in a shelter, boarding kennel, or veterinary clinic prior to the natural disaster. Through this outlet, the safety of both the owner and the pet is maximized. To supplement the information, the pet preparedness plan directs owners to resources such as the Companion Animal Alliance, the LSU Agriculture Center, and the LA State Animal Response Team ("Pet Preparedness", 2019).

In contrast, the business preparedness plan is forthright and concise. If a business does not possess an emergency plan, a system for tracking business resources, or an updated emergency communication plan for its employees, Red Stick Ready strongly suggests that they follow FEMA's protocol. The agency offers tailored resources pertaining to emergency response planning, continuity planning, and continuity resource requirements ("Business Preparedness", 2019). Additionally, the Red Stick Ready campaign ensures that their interests for businesses goes beyond planning. After a disastrous event, East Baton Rouge Parish proclaims that they are dedicated to "the restoration of local businesses that provide essential goods and services to the community" ("Business Preparedness", 2019). This is accomplished through joint collaboration as the business is able to continue its day-to-day functions while making

their services available to the public. Once the area is deemed secure for re-entry, the Parish promotes the revival of businesses as their operations contribute to the revitalization of the community.

The final component of the Red Stick Ready campaign is the whole community preparedness approach. To ensure success following a disaster, it is vital that the community collaborates together. Neighbors are often the actual first responders to a disaster, and their efforts can allow the "real" first responders to exert their resources toward other needs in the community; however, it is imperative that citizens are adequately prepared. First, Red Stick Ready recommends the Buddy System service to connect with friends and family. The Buddy System allows for communication between neighbors before, during, and after a disaster to assure that all needs are met between parties ("Whole Community Preparedness", 2019). Moreover, if one is able to identify with a certain subdivision, it is encouraged to join that subdivision's association as an advanced means to meet neighbors and contribute to the neighborhood safety. Red Stick Ready provides a list of these subdivisions for communication purposes. In conclusion, the program offers additional neighborhood tips endorsed by FEMA as well as preparedness resources regarding different types of communities, such as universities and faith-based communities ("Whole Community Preparedness", 2019). The whole community preparedness planning reflects a holistic and inclusive approach as the campaign seeks to ensure that Baton Rouge and its citizens are "Red Stick Ready".

# **Baton Rouge Analysis**

Given the fact that Baton Rouge has experienced its fair share of natural disasters in the form of hurricanes and flooding, it is evident that their leadership understands the necessity of emergency preparedness, and particularly how it relates to citizen volunteers.

For example, the successful revitalization of the Cajun Navy gives credence to the value of trained volunteers and their usefulness during disaster response and recovery efforts. Therefore, it is no surprise that the Red Stick Ready program was created as a proactive approach to educating and preparing its citizens before disaster strikes. This preemptive program is significant in that it is comprehensive, addresses the needs of families as well as children and pets, and is easily accessible. Its outreach extends beyond protocols and addresses citizens through public service events and programming for children. Engaging children in emergency preparedness is crucial to the long-term viability of disaster preparedness programs. Furthermore, when citizens possess readiness skills, they become self-sufficient, freeing emergency personnel to direct their attention to more critical needs. The Buddy System is an example of the effective utilization of citizen volunteers. Encouraging accountability within neighborhoods and focusing on neighbors helping neighbors, allows everyday citizens to act as essential personnel in the protection of people and property post disaster. An additional strength of the Red Stick Ready program is that it is dynamic and allows for expansion as additional resources and recommendations become available. For instance, the program could incorporate supplemental plans focused on individuals with disabilities as well the senior adult population. The opportunities for this program are endless and vital for successful emergency management.

Another highlight of the Baton Rouge Emergency Preparedness model is its partnership with the LCAVOAD. This in an excellent example of the value of communication and collaboration during times of crisis. The LCAVOAD's management of volunteers and donations during disaster recovery minimizes chaos that would otherwise inundate a command center and facilitates a more efficient use of resources.

Expansion of this program could include working in a collaborative partnership with Red Stick Ready. Through community outreach events, citizen volunteers could be recruited and registered into a databank based on their skills and abilities.

As a whole, the EOP and the Red Stick Ready program instill a holistic and broad-based approach to emergency management. Logistically, the program is thorough and provides a systematic approach to the implementation of the emergency management plan following disaster. Leadership responsibilities and roles are clearly documented in the EOP and the document gives a regulatory impression. Perhaps the addition of more inclusive language and examples of cooperation among local, state, and federal agencies would provide a more unifying appeal. In addition, the EOP should establish a means of classifying the magnitude of a disaster so that the urgency of response and resource allocation can be quickly communicated among various entities.

# Case #2: Spokane, WA

Through the Greater Spokane Emergency Management (GSEM) Office, the city of Spokane, WA, provides its community with the Comprehensive Emergency Management Plan (CEMP). The plan itself consists of thirty-eight pages, in addition to corresponding appendices and attachments. The CEMP was conducted through a forum consisting of local organizations. The results concluded with an emergency management plan designed to specifically assess local mitigation, preparedness, response, and recovery activities in the area. The eight sections comprised in the CEMP are as follows: Introduction, Planning Assumptions, CEMP Organization, Phases of Emergency Management Activities, Concept of Operations, Levels of Emergency, and Roles & Responsibilities. Moreover, the Great Spokane Emergency Management Office offers a

range of resources for its community members. Such tools include volunteer opportunities and open committees.

#### Spokane Comprehensive Emergency Management Plan

The Introduction of the CEMP explicitly states the mission of the document: "The primary objective for emergency management in Spokane is to provide a coordinated effort from all supporting county and city departments/agencies/organizations in the mitigation of, preparation for, response to, and recovery from injury, damage, or suffering resulting from either a localized or widespread disaster" ("Comprehensive Emergency Management Plan", 2014). The CEMP's guiding principles accompany this mission as it seeks to protect citizens, property, and the environment. Saving human lives is the CEMP's utmost priority, followed by the preservation of property in continuation to ensure the overall safety of its residents. In sum, the CEMP is the Basic Plan of Spokane's emergency management operations and disaster responsibilities. It is noted that the CEMP cannot guarantee the fulfillment of the GSEM's duties and Plan, as the extent of disasters and their destruction is unforeseeable. It is advised for all residents to prepare their households with the necessary disaster supplies for a 72-hour period.

Under the Planning Assumptions & Considerations section, the CEMP cites flooding, storms, wildland fires, earthquakes, and volcanoes as the area's most likely natural disasters to impact the Spokane community ("Comprehensive Emergency Plan", 2014). Based on these natural disasters, the CEMP compiled a set of assumptions that were taken into account throughout the creation of the document. It is understood within the CEMP that tremendous tragedy and destruction can occur, but it is expected of community members and businesses to be prepared for the impact of disasters. The

support and utilization of the local community, government, and resources are heavily emphasized within this section.

The Concept of Operations section describes the role of the Basic Plan within the CEMP. It is stated that the structure and procedures recommended are in concurrence with federal protocols and the National Incident Management System, which allows for the integration of federal, state, local, tribal, private, and non-governmental organizations in the Spokane area ("Comprehensive Emergency Plan", 2014).

The Phases of Emergency Management section empowers the CEMP to meet its mission of protection of life and property. The five core phases of emergency are prevention, preparedness, response, recovery, and mitigation, all of which are thoroughly weighed within this segment ("Comprehensive Emergency Plan", 2014). First, the goal of prevention is to avert the possibility of a major disaster to the area through collection, analyzation, and application of data. From prevention, the next step in emergency management is preparedness. This phase emphasizes the necessity of minimizing the event in conjunction with informing the public of the necessary details, procedures, and activities. Actions in association with preparedness will only be implemented if they have the potential to preserve lives and property. Furthermore, each department in the county will construct personalized Standard Operating Guides in order to address their capabilities and responsibilities that will be enacted in case of disaster ("Comprehensive Emergency Management Plan", 2014). The employees and staff will receive appropriate emergency training, and drills will be enforced. Based on the results of these measures, the CEMP will be able to enhance its planning and protocols for the future. Additionally, other preparedness functions for the community include the pre-distribution of resources,

organization of command posts and mobilization centers, and the order of evacuation and shelter ("Comprehensive Emergency Management Plan", 2014).

Following preparedness, the response phase is enacted. Once again, the value of life and property is held as the highest priority, and immediate and short-term responses will be enacted to alleviate the severity of the disaster. In compliance with the CEMP, departments and agencies will be required to equip the community with information, supplies, and services to enhance the relief efforts. Disaster response efforts involves factors such as public health and safety, search and rescue, emergency shelter, transportation, and medical services ("Comprehensive Emergency Management Plan", 2014). Furthermore, the process of recovery entails the revitalization of the community post-disaster. Programs and resources will be made available to individuals who desperately need these necessities. Clean up, repair of public facilities, counseling, and temporary housing are all actions that can be implemented during this stage. The final component of this series is mitigation. Gathering data from the prior incident will enable the CEMP to enhance its functions and emergency management operations. Moreover, increased education and outreach can be made readily accessible to the community and its members in order to reduce the risk of lives and property lost during future disasters.

The conclusion of the Phases of Emergency Management section notes the administrative duties necessary for the structure of CEMP and its operations. It highlights the utilization of emergency declarations and requests for state or federal assistance when the emergency appears insurmountable for the local body to solely handle ("Comprehensive Emergency Management Plan", 2014). More significantly, the local governance of Spokane's emergency management department is defined in this sector. As stated, the Emergency Coordination Center (ECC) serves as the control center of the

emergency management operations ("Comprehensive Emergency Management Plan", 2014). The organization, communication, and coordination of the system's processes is conducted from this location. The GSEM Duty Officer is charged with the responsibility of its functions. Lastly, the section accounts for the Continuity of Government and Operations Plans. The protocols for lines of succession, preservation of records, and core operational functions are critically detailed.

The succeeding section contains the Levels of Emergency Action. The CEMP constructed a table listing the levels from one to five, with the severity of the incident being determined by the escalation of the numbers ("Comprehensive Emergency Management Plan", 2014). The following bullet points illustrate the characteristics of each level in regards to natural disasters:

- Level 1: no severe weather pending; general daily operations are conducted;
   steady communication; minor and controlled incidents
- Level 2: localized incident and potentiality as a county wide incident; controlled by first responders; continued communication; weather advisories; alert and organization of teams; possibility of enacting ECC
- Level 3: incident is county wide concern and ECC is activated; countywide monitoring; use of countywide assets
- Level 4: county incident and potential catastrophe; use of county assets; activation of ECC; possibility of requesting state assets
- Level 5: catastrophe; state and federal assets are utilized

The purpose of the emergency levels is to enhance the decision-making and efficiency of the GSEM when a disaster accumulates.

Continuing, the Roles and Responsibilities section outlines preparedness, response, and designated organization responsibilities. The preparedness responsibilities ensure that Spokane and its municipal departments employ essential emergency-related functions in addition to their daily functions ("Comprehensive Emergency Management Plan", 2014). The department director is appointed the role of creating and maintaining the entity's emergency management planning. As a result, certain responsibilities and expectations are formed in the department, such as matching employee job descriptions to their emergency duties and connecting with other departments to better emergency operations. In contrast, there is a set of response responsibilities that are present within each department. These mandates encompass a range of actions, from the suspension of business activities to the release of public information to news and media sources. The final sector of responsibilities pertains to the delegation of partnered organizations. The list cites thirty-two organizations as integral components of the emergency operations, including the Spokane Transit Authority, Local Law Enforcement, the Interstate Fairgrounds, and the Spokane Regional Clean Air Agency ("Comprehensive Emergency Management Plan", 2014).

The concluding section of the Basic Plan is entitled Preparedness and Maintenance. It ensures that the CEMP is constantly evolving to accommodate to new policies, technologies, and directives that would benefit the operation. Unfortunately, the document does not uphold this standard being that it has not been updated since 2014. The CEMP does, however, provide a point of contact if any reader has inquiries regarding its composition.

In addition to the CEMP, GSEM provides preparedness guides for individuals in the area. The office suggests for citizens to create a preparedness plan for families and directs them to resources, such as FEMA, for guidance. Also, the necessity of a Grab-n-Go Kit is emphasized. GSEM advises to include the following contents: three-day supply of water, change of clothing, first aid kit, weather/disaster radio, flashlight, extra set of car keys, cash, traveler's checks, sanitation supplies, items for infants, elderly or disabled family members, glasses/contacts, family documents, and pet supplies ("Build a Kit", 2019). The findings of this section have been summarized in Table 2 on the following page.

Table 2. Spokane Emergency Management Plan Overview

	and Management Office (CCEM)	
	ncy Management Office (GSEM)	
Plan Introduction		
	Planning Assumptions	
	Comprehensive Emergency Management Plan (CEMP) Organization	
Phases of Emergency Man	nagement Activities	
Concept of Operations		
Levels of Emergency		
Roles & Responsibilities		
	g, storms, wildland fires, earthquakes, and volcanoes)	
Anticipated	, , , , , , , , , , , , , , , , , , , ,	
•		
	er pending; general daily operations are conducted; steady	
communication; minor an		
	t and potentiality as a county wide incident; controlled by first	
responders; continued con	nmunication; weather advisories; alert and organization of teams;	
possibility of enacting EC	C	
	y wide concern and ECC is activated; countywide monitoring; use	
of countywide assets		
Level 4: county incident a	and potential catastrophe; use of county assets; activation of ECC;	
possibility of requesting s	tate assets	
	and federal assets are utilized	
	e, local, tribal, private, and non-governmental organizations in the	
Utilization Spokane area	e, rocar, trioar, private, and non governmental organizations in the	
	inteer Organizations Active in Disaster (VOAD)	
Management Coordinated through voice	inter organizations retive in Disaster (vorte)	
	g Committee- pursues strengthened planning and communication	
	and Security Region 9- mission is to reduce the effect of disasters	
through education and tra		
	s Active in Disaster (COAD)- vision is to create a community	
resilient to disaster		

#### **Spokane Volunteer Opportunities**

Although the CEMP does little to provide specific direction and resources for the public, Greater Spokane Emergency Management (GSEM) offers many resources on its website for involvement in volunteer activities. The department advocates for the agency, Volunteer Spokane. Through this outlet, individuals can be connected to disaster response organizations in the area. Additionally, GSEM asserts the need for trained volunteers and their ability to assist first responders during times of crisis and disaster. The website encourages individuals to participate in the following supported organizations: the Disaster Assistance Response Team (DART), the Radio Amateur Emergency Service/Radio Amateur Emergency Services (ARES/RACES), the Mobile Emergency Operations Center (MEOC), and the Spokane County Search and Rescue ("Volunteer Opportunities", 2019).

The first organization, DART, is coordinated through FEMA ("DART", 2019). It allows volunteers to connect with emergency management officials in advance in order to assess the capabilities and strengths of each interested individual. When a disaster does occur, DART can employ volunteers to respond to the scene based on their individual qualifications. The organization also offers training opportunities to enhance and acquire valuable skills that could be utilized during disaster response ("DART", 2019). Ultimately, the goal of DART is to promote volunteer participation as well as to ensure that volunteer operations are efficient and accessible.

Volunteers involved in ARES/RACES are typically licensed radio technicians or operators. However, the roles of the two organizations differ. Members of ARES transmit messages before, during, and after an emergency ("ARES/RACES", 2019). They bridge communications between the public and emergency management officials. In contrast,

RACES is activated when an emergency occurs and continues thereafter until the disaster has dissipated ("ARES/RACES", 2019). The role of RACES is to assist in communications between government officials at all levels.

The Spokane County Search and Rescue provides another opportunity for local volunteer activity. Under the Spokane County Sheriff's office, the organization seeks to assist law enforcement in search and rescue efforts and is comprised of different teams that are assigned to certain jurisdictions and events ("Spokane County Search and Rescue", 2019). The teams range from the Winter Knights, who offer ATV services for both summer and snow elements, to the Inland Northwest Search and Rescue, whose personnel respond in all seasons and environments ("SAR Council and Teams", 2019). Additionally, the Explorer Search and Rescue team is open to both youth and young adult volunteers to encourage early involvement and administer proper search and rescue training ("SAR Council and Teams", 2019).

An extension of the Spokane County Search and Rescue is the Mobile Emergency Operations Center (MEOC). This resource and its volunteers are utilized as a mobile control center that aids in "diverse situations" that may arise in the community ("Volunteer Opportunities", 2019). The MEOC is also employed through the local law enforcement and fire departments.

#### **Spokane Committees**

To achieve optimal efficiency for disaster planning and response, GSEM has yielded a number of committees to assist in their operations. These groups are open to all members of the community as they collaborate and produce bettered emergency preparedness. For example, the Local Emergency Planning Committee pursues strengthened planning and communication between its citizens, businesses, and

government ("LEPC", 2019). To accomplish this goal, the committee consists of local representatives from the government, elected officials, industry, environmental groups, and other entities.

Another group highlighted by the GSEM is Washington State Homeland Security Region 9. The coalition hopes to reduce the effect of disasters in the area through its core values: partnership & leadership, communication, prevention of attacks, reduction of vulnerabilities, education & training, and reduction of damage & recovery ("WA State Region 9", 2019). GSEM heads the efforts of Region 9 and oversees ten counties as well as the Kalispell and Spokane tribes.

Community Organizations Active in Disaster (COAD) is also present in the community. The Spokane County COAD declares its vision "to create a community resilient from disasters" ("COAD", 2016). Participants can receive numerous networking opportunities, workshops, and seminars that are focused on disaster efforts ("COAD", 2016). Through its mission statement, COAD seeks to build cooperation, coordination, collaboration, and communication in the community, and a variety of local organizations have partnered in these efforts. From Catholic Charities Spokane, to Gonzaga University, COAD has benefitted from and equipped a diverse body of community entities within the sector of emergency management ("COAD", 2016).

## **Spokane Analysis**

In its entirety, GSEM is thorough in its approach to emergency management, however, its disaster plan is not concise nor clearly organized. The CEMP itself is difficult to follow and relies on many assumptions that are unlikely to hold during a disaster. While I admire GSEM's efforts to incorporate the opinions of local organizations and residents, the document would have greatly benefited from the

expertise and knowledge of a varied group of individuals trained in emergency management as well governmental officials in its creation of the CEMP. It is not prudent to expect that local citizens possess a sufficient knowledge of disaster preparedness and response to create a comprehensive, well-developed emergency management document. Furthermore, the CEMP is highly reliant on outside sources at the state and federal levels. When a disaster occurs, it is imperative that the response quick and efficient. Waiting on resources rather than being equipped to handle the disaster competently and effectively until reinforcements arrive can be disastrous.

With that being said, GSEM does offer many online resources to encourage community involvement in emergency management and volunteer opportunities. The open committee meetings demonstrate transparency to residents, thereby allowing them to stay informed on the policies and directives affecting their city. In addition, I commend GSEM's action toward increasing volunteerism in the community, especially in programs that focus on disaster response and relief. The more residents who can respond to emergent situations in the area, the more secure and safe the community remains. Like Red Stick Ready, GSEM could benefit from a program that incorporates their services and collaborates with other relief agencies for an effective and purposeful response. Information and education may be readily available, but organization and utilization of this valued resource is lacking. Furthermore, it is unrealistic to anticipate that citizens will be able to respond and act as intended, as the nature and magnitude of the disaster may prevent their ability to provide assistance. In theory the CEMP is inclusive, unifying and philanthropic in its impression; however, in reality, there is uncertainty that in the wake of disaster, whether this plan will be able to deliver on its promise to prepare, respond, and recover from localized or widespread destruction in a coordinated and

as new information is gleaned and additional resources become available, yet the CEMP was last revised in 2014, leading one to wonder if the parties involved in the last revision are still intact and cognizant of the responsibilities should disaster warrant their response.

# Case #3: Oklahoma City, OK

The jurisdiction of Oklahoma City, OK, has developed an Emergency Operation Plan (EOP) through the City of Oklahoma City Office of Emergency Management. The EOP is compiled in sixty-one pages and includes appendices to address more detailed aspects of the document. It is divided into fifteen primary sections:

- 1. Purpose, Scope, Situations, and Assumptions
- 2. Concept of Operations (CONOPS)
- 3. Types of Emergencies and Disasters
- 4. Incident/Disaster Priorities
- 5. Interjurisdictional Responsibilities
- 6. Mission Areas
- 7. Pre-Incident Management Actions
- 8. Incident Actions
- 9. Post-Incident Actions
- 10. Organization and Assignment of Responsibilities
- 11. Direction, Control, and Coordination
- 12. Information Collection and Dissemination
- 13. Communications
- 14. Administration-Finance-Logistics
- 15. Plan Development and Maintenance

In addition to the EOP, the department provides a variety of resources and information through its program Prepare OKC. Table 3 highlights the contents of Oklahoma City's preparedness plans.

# The City of Oklahoma City Emergency Operations Plan

The EOP begins with its Purpose, Scope, Situations, and Assumptions. It states that the document offers the framework for preparation, prevention, protection, mitigation, response and recovery of emergencies, which the EOP addresses as "incidents/disasters" ("City of OKC", 2017). It is classified as an all-hazards plan that assists in the security of the health, safety, and general welfare of the public. The EOP first presents basic information about the area in order to provide the knowledge necessary to continue with the reading of the report. Encompassing a span of 622.5 square miles, Oklahoma City expands into the counties of Oklahoma, Canadian, Cleveland, and Pottawatomie ("City of OKC", 2017). The city is subject to numerous natural disasters that include tornadoes, wildfires, earthquakes, high winds, extreme heat, lightning, hail, winter weather, and flooding.

Next, the Concept of Operations (CONOPS) section offers insight to its emergency management actions. It is stated that the EOP is always active and certain components of the document will be activated as needed to accommodate the particular incident. A Declaration of a State of Emergency is not needed to enact the EOP's procedures, but it can assist in expediting emergency response and recovery ("City of OKC", 2017). Those permitted to issue a Declaration are the State Governor, the City Council (through a resolution), and the Mayor. Communication will be administered through a diverse collection of channels in order to ensure that the declaration has been widely distributed.

Due to incidents variability in scope, the EOP divides them into five different types. They include:

- Type 5: one or two resources utilized; the incident is contained within a few hours; Incident Command System (ICS) and General Staff are not activated
- Type 4: several resources are utilized; ICS and General Staff are only activated if necessary; consists of one operational period
- Type 3: requires attention extending initial response capabilities; some or possibly all ICS and General Staff are activated; could require multiple operational periods
- Type 2: requires resources beyond local capabilities; the majority or all ICS and General Staff are utilized; multiple operational periods needed
- Type 1: the most complex incident; regional, state, and national resources required; all ICS and General Staff are activated

To adequately respond to these types, the EOP boldly states its management priorities ("City of OKC", 2017). First and foremost, life safety is the ultimate concern. The security of the public will be the primary assessment of first responders. Secondly, it is important that the incident is stabilized, and its effects are minimized. This will ultimately ensure the life safety of the public as well. Finally, property and environmental preservation will be evaluated.

Through Interjurisdictional Responsibilities, the EOP proclaims that the City of Oklahoma City will assume the response efforts of incidents/disasters within its city limits. Because of this, the Canadian, Cleveland, Oklahoma, and Pottawatomie counties are activated in disasters at all times. In addition, the Mission Areas of the EOP are defined in this section: prevention, protection, mitigation, response, and recovery.

The Pre-Incident Management sector covers the aforementioned mission areas in clear detail. It states that the EOP itself is a measure of preparedness as the City of Oklahoma City's primary resource for emergency management ("The City of OKC", 2017). Through constant collaboration with City departments and entities, the EOP and its structure is upheld for proper emergency planning. Additionally, the City partners with the Oklahoma Urban Area Security Initiative to implement current training protocols and exercise plans for the municipality. In regards to prevention, the EOP relies on a set of core capabilities, such as public information and intelligence sharing, in order to subdue terrorist attacks ("City of OKC", 2017). Based on the community's history, terrorism is a relevant threat and takes precedence to natural disasters in relation to prevention efforts. However, the portion of this section dedicated to protection adheres to both terrorism and natural disasters. The City works to ensure that the living conditions are safe, and the "interests, aspirations, and way of life" are secured through the reduction of eminent risks ("City of OKC", 2017). Lastly, the mitigation efforts of Oklahoma City are enacted either prior to, during, or after an incident/disaster. Strategies are created and implemented to lessen loss of life and property damage, and thus generate long-lasting benefits such as economic development and environmental sustainability ("City of OKC", 2017).

The Incident Actions section addresses specific response and recovery measures when a disaster occurs. This includes supplying "basic human needs" and "services" to the community while carrying out the responsibility of saving lives and maintaining the situation at hand ("City of OKC", 2017). A unique passage of this section emphasizes the care of people with disabilities. The EOP lists concepts that can be applied to response protocols. For example, it is important to note the idea of No "One-Size-Fits-All" as "people with disabilities do not all require the same assistance and do not all have

the same needs" ("City of OKC", 2017). Through means such as medical equipment and service dogs, there are a diverse set of possibilities to assist those with disabilities.

Another interest highlighted in the EOP is domestic plants and animals. The City ensures that this group will be administered the proper care they need through rescue, shelters, medical attention, and supplies. Finally, to ensure that all these goods and services can be transported efficiently, the EOP has developed an Emergency Traffic Flow Plan and cited Ambulance Points of Distribution ("City of OKC", 2017). This allows emergency teams to reach people in need regardless of debris, destruction, and traffic.

The main venture of the Post-Incidents Activities section is that of recovery efforts, as restoration and revitalization are its vital components. The Local Disaster Recovery Manager (LDRM) is charged with the organization and implementation of recovery activities in Oklahoma City ("City of OKC", 2017). One of these responsibilities includes the creation of a Disaster Recovery Task Force (DRTF) that is comprised of a broad set of local individuals to assess the incident at hand ("City of OKC", 2017). Additionally, a range of assessments should be completed that address both the physical impact and social impact on the community; they include the topics of Damage, Debris, Site, Properties in Special Flood Hazard Areas, and Victim's Needs ("City of OKC", 2017). Lastly, it must be determined whether the magnitude of effects caused by the incident will require short-term or long-term efforts. Short term recovery can pertain to activities such as demolition, donations management, or infrastructure restoration, while long term recovery can include functions such as historic preservation, public health recovery, and disaster memorialization ("City of OKC", 2017).

Through the Organization and Assignment of Responsibilities section, the order and authority of the EOP is established. The Mayor and City Council hold all policy

making decisions as the city officials and employees carry out their commands. The section pays specific attention to the organization of disaster volunteers. The EOP notes the challenge that an influx of volunteers can create, but it provides a management strategy to control the situation. Prior to an emergency, it is pertinent to encourage citizens to affiliate with a volunteer organization in order to establish training and regulation. During or after the disaster, the EOP has an assigned Liaison Officer to handle communications and serve as an authority to the organization's unaffiliated volunteers ("City of OKC", 2017). The Officer will provide information regarding the local government's response and what is needed from their services. To more efficiently contain volunteer efforts, a Disaster Volunteer Center may be created off-site to establish safety and correct operational procedures.

Next, the Direction, Control, and Coordination section mandates the use of control centers in the area. When a disaster affects a general location, an Incident Complex can be created nearby in order to increase organization and administrative efforts ("City of OKC", 2017). Additionally, Department Command Centers can be instituted for specialization. For example, the Public Works Department serves for Snow/Ice Operations, the Utilities Department pertains to broken water lines, and the Oklahoma City County Health Department addresses the pandemic flu ("City of OKC", 2017). However, the Multiagency Coordination Center (MAC) proves to be the most collaborative measure as it is placed in a centralized location for all city departments to access in case of disaster. For day-to-day functions, the MAC houses Oklahoma County Emergency Management, Oklahoma City Emergency Management, and the Medical Emergency Response Center ("City of OKC", 2017).

The Information Collection and Communications section is pivotal for the EOP. It provides the outline to appropriately handle the gathering of information and its dissemination to the public. First and foremost, information is utilized to make appropriate decision-making for the community. The radio system is utilized as the most reliable source for communications. All city departments are programmed within the OKC AID radio system for priorities involving command, tactical operations, and logistics ("City of OKC", 2017). If the OKC AID system fails, amateur radio operators will be used, or verbal and written messages will be employed.

The Administration-Finance-Logistics section serves to address the role of documentation and reports. Incident Action Plans will be enacted based on the extent and classification of the disaster. Furthermore, it is the responsibility of each department to mandate its own policies and procedures and account for the time records of its employees. After the disaster has occurred, Oklahoma City Emergency Management will supervise a comprehensive review ("City of OKC", 2017). Phase One is a "Hot Wash" that allows response actors to voice their problems and concerns. This will be influential in identifying issues and areas that need improvement in regards to disaster management and its operations. Phase Two includes "Debriefing" that consists of formal meetings outlining the specifics and details of the incident operations. At the conclusion of these phases, an After-Action Report will be distributed summarizing the topics discussed. Additionally, each department will be given a Corrective Action Plan detailing its areas to augment and enhance in preparation for future incidents.

The Plan Development and Maintenance section is the conclusion of the EOP. It cites the need for the document to remain up-to-date through policy changes and implementation of new directives ("City of OKC", 2017). A committee has been assigned

to formally address these changes and apply them to the EOP as needed. Below, Table 3 illustrates the findings of this section:

Table 3. Oklahoma City Emergency Management Plan Overview

Plan Leadership	City of Oklahoma
Plan Organization	Purpose, Scope, Situations, and Assumptions
8	Concept of Operations (CONOPS)
	Types of Emergencies and Disasters
	Incident/Disaster Priorities
	Interjurisdictional Responsibilities
	Mission Areas
	Pre-Incident Management Actions
	Incident Actions
	Post Incident Actions
	Organization and Assignment of Responsibilities
	Direction, Control, and Coordination
	Information Collection and Dissemination
	Communications
	Administration-Finance-Logistics
	Plan Development and Maintenance
Disasters	Terrorism
Anticipated	Natural disasters (tornadoes, wildfires, earthquakes, high winds, extreme heat, lightning,
1	hail, winter weather, and flooding)
Disaster Rating	Type 5: one or two resources utilized; the incident is contained within a few hours;
	Incident Command System (ICS) and General Staff are not activated
	Type 4: several resources are utilized; ICS and General Staff are only activated if
	necessary; consists of one operational period
	<b>Type 3:</b> requires attention extending initial response capabilities; some or possibly all ICS and General Staff are activated; could require multiple operational periods
	Type 2: requires resources beyond local capabilities; the majority or all ICS and General
	Staff are utilized; multiple operational periods needed
	Type 1: the most complex incident; regional, state, and national resources required; all
	ICS and General Staff are activated
Resources	Multiagency Coordination Center (MAC) – creates a centralized location for all city
Utilization	departments to access in case of disaster
Volunteer	Plan encourages volunteers to affiliate with a relief organization
Management	Liaison Officer- assigned to handle communications and serve as an authority to
	unaffiliated volunteers
	Disaster Volunteer Center- may be created to establish safe operational procedures
Disaster	Urban Area Security Initiative- implements training protocols and exercise plans for the
Preparedness	municipalities
•	Prepare OKC- offers information, guides, and resources to effectively prepare for natural disasters in the region

# **Prepare OKC**

Through the City of Oklahoma City Office of Emergency Management (OKC OEM), residents have online access to their program, Prepare OKC. It offers information,

guides, and resources to effectively prepare for natural disasters in the region. Most significantly, there are detailed pages pertaining to the area's most vulnerable natural disasters: thunderstorms, flash floods, winter weather, wildfires, and earthquakes ("Know What to Do", 2019). The information cites various resources, such as the National Weather Services, for details about local warnings, as well as safety precautions.

Additionally, there is a thorough section on tornadoes that includes a video, warning signs, and safety measures. OKC OEM ensures optimal security of the public through its Outdoor Warning Sirens that notify the community when a tornado is near or present ("Tornadoes", 2019). It advises the public to take immediate shelter and continue utilizing other resources for additional information.

The OKC OEM encourages residents to establish an emergency plan and build a kit. The emergency plan should include the following pertinent details: family information, common family locations, pet descriptions, meeting places, and emergency numbers ("Prepare OKC", 2019). The plan is to ensure that all members of the household are accounted for and are informed about the necessary actions to take during a disaster. Moreover, the kit is a beneficial supplement to the emergency plan. The kit should be held in an airtight container and placed in an accessible location. Resources in the container should include: food, water, radio, first aid kit, whistle, dust masks, basic tools, can opener, local map, cash, medications, and pet supplies ("Prepare OKC", 2019). Supplies should be refilled and updated each year.

## **Oklahoma City Analysis**

Upon review of Oklahoma City's EOP, it is apparent that the city has a well-developed and clearly organized approach toward disaster management. The plan addresses a multitude of components and aspects necessary to the functions of emergency

preparedness and response. With a more defined government section that clarifies the roles of each command position, the EOP would be a sound blueprint for other emergency plans throughout the United States. The centralization of the Multiagency Coordination Center, utilization of a scoring system to type events based on complexity and resource utilization, and a proactive post disaster response review are crucial components of a progressive emergency plan and a testament to the integrity of the plan's development.

However, I do believe that OKC OEM could update and enhance its Prepare OKC program. Preparedness plans that are less generalized and focus more on targeted populations such as families and children would be beneficial. Furthermore, the training curriculum is not inviting nor enticing, which is vital for volunteer recruitment. Citizens in the Oklahoma City area should feel valued as vital participants in disaster preparedness and response, providing Prepare OKC with a great opportunity to recruit and train individuals prior to a disaster or adverse event. I do commend the plan for encouraging volunteers to affiliate with various relief organizations prior to a disaster. Furthermore, the establishment of a Liaison Office to oversee spontaneous volunteers is imperative, but without clearly defined communication and collaboration with the Command Center, effective utilization of this resource could be challenging.

## **Document Analysis**

Within this section, I have conducted a comparative analysis of the emergency management plans examined. For clarity, a snapshot of the three documents is displayed in Table 4 on the following page. The chart provides a general overview of the emergency management plans of Baton Rouge, LA, Spokane, WA, and Oklahoma City, OK.

Table 4. Comparison Chart

	Baton Rouge	Oklahoma City	Spokane
Official Management Plan	East Baton Rouge Parish Emergency Operations Plan (EOP)	City of Oklahoma City Emergency Operations Plan (EOP)	Greater Spokane Comprehensive Emergency Management Plan (CEMP)
Plan Manager	Director of Mayor's Office of Homeland Security and Emergency Preparedness (MOHSEP)	Oklahoma City Emergency Management	Greater Spokane Emergency Management (GSEM)
Local Emergency Declaration	State Governor, Mayor, or Director of MOHSEP under supervision of mayor	State Governor or a proper officer /agency of the States, Resolution of the City Council/City Manager, or the Mayor	Chief executive of the local government
Responsible for Plan Implementation	Mayor	Mayor and City Council	Greater Spokane Emergency Management
Comprehensive All Hazards Plan	Yes	Yes	Yes
Plan utilizes FEMA's Five Phases of Management (Prevention, Mitigation, Preparedness, Response, and Recovery)	Yes	Yes	Yes
Command Center During Disaster	City-Parish Emergency Operations Center (EOP)	When activated, the Multiagency Coordination Center (MACC)	Emergency Coordination Center (ECC)
Staging Severity of Emergency	No standard grading system	Grades emergencies based on Types from 5-1	Utilizes Levels ranging from 1-5
Allocation of Resources	Uses local and state resources; Accesses Federal resources only if necessary	Utilizes local, state and federal resources	Integration of federal, state, local, tribal, private, and non-governmental organizations in the Spokane area
Volunteer Management	Coordinated through Louisiana Capital Area Volunteer Agencies Active in Disaster (LCAVOAD)	Liaison Officer assigned to work with volunteer organizations; Disaster Volunteer Center may be established if needed	Coordinated through Volunteer Organizations Active in Disaster (VOAD)
Continuity of Government	Established at state and local level	Not significantly addressed in plan	Local governments to develop a Continuity of Government Succession List
Most Catastrophic Event	August 2016 flooding- 13 killed, >100,000 homes damaged	April 1995 bombing- 168 killed, > 650 injured	September 1890 explosion- 15 killed
Plan Last Revised	June 2018	June 2017	December 2014

As Table 4 illustrates, the emergency management plans of these three cities, while sharing similar aspects and core themes, differ in a range of facets. Table 5

describes in further detail the differences that emerge from these documents. In regard to disaster, the cities are prone to varying events. For instance, Baton Rouge has witnessed the damaging effects of hurricanes and flooding alike, while Oklahoma City has been victim to terrorism as well as destruction from natural disaster in the form of tornados. Although Spokane cites a number of potential disasters, the area has yet to experience devastation of the magnitude of either Baton Rouge or Oklahoma City. Therefore, one can surmise that while the city of Spokane has a comprehensive emergency plan, the absence of truly being tested, creates some uncertainty regarding its effectiveness during times of catastrophe. Further, both Spokane and Oklahoma City have devised a tool for staging disaster levels in order to evaluate the severity of the situation at hand, and hence, communicate a more appropriate response. However, the grading tool for determining disaster severity varies greatly between these two city governments. For instance, Oklahoma City types disaster severity on a 5-1 scale, with a Type 5 described as a benign event compared to a Type 1 requiring regional, state, and national resources. On the other hand, Spokane grades disaster severity on levels from 1-5. In this scoring system, a Level 1 rating is described as minor, while a Level 5 is catastrophic, requiring state and federal response. The lack of a standardized scoring tool to grade disaster severity can limit a plan's effectiveness beyond the local level. The implementation and utilization of a uniform scoring instrument would certainly communicate a more cohesive response when calling upon agencies and resources during times of emergency.

Table 5. Document Differences

	Baton Rouge	Oklahoma City	Spokane
Standardized Tool for	No	Yes	Yes
Disaster Staging			
Continuity of	Yes	No	Limited
Government			
Liaison Officer for	No	Yes	No
Volunteer Management			
Partnership with local	Yes	No	No (only at the state
VOAD			level)

The emergency management plans of Baton Rouge, Spokane, and Oklahoma City all present unique, but valuable approaches to emergency management planning. In particular, each city presents a varying approach to leadership. While Baton Rouge has a well-established continuity of government plan at the local and state level, Oklahoma City and Spokane fail to specifically define the chain of command among its leadership. Failure to delineate this critical component of authority could be disastrous in times of chaos and uncertainty.

Another component of disaster management is the safe and effective use of volunteers, particularly spontaneous volunteers. The benevolent spirt of the American people is a driving force behind this great resource. While the websites for Baton Rouge, Oklahoma City, and Spokane strongly recommend affiliation with reputable relief organizations, in reality, many will flock to a disaster site spontaneously and unaffiliated. The local Volunteer Organizations Active in Disaster (VOAD) as described in the Baton Rouge's emergency management plan is an excellent resource for the management of volunteers during disaster. Likewise, the Disaster Volunteer Center established in the Oklahoma City plan is also a valuable component of disaster management in that it removes the volunteer pool from the center of emergency management and coordinates this service offsite.

# **Chapter 5-Discussion**

In an age when disasters, natural or manmade, are imminent, it is imperative that local, state, and federal agencies work collaboratively to create effective and efficient emergency plans. Furthermore, it is necessary that we learn from the successes and failures of past responses. Having studied the emergency plans of Baton Rouge, LA, Spokane, Washington, and Oklahoma City, OK, I have derived at a few recommendations. These plans, while extensive, should collaborate in greater detail with medical facilities regarding anticipated casualties and medical needs. Regardless of how effective a response plan may be, its success is limited if adequate medical services are not available to meet those needs. Therefore, it is imperative that local communities have procedures in place for obtaining the necessary medical services for its injured.

In addition, education and community outreach programs must continue to evolve as disaster preparedness and response is a progressive and dynamic process. In particular, standardization in the organization of volunteers is critical, and it is essential that recruitment not only be aggressive but precede utilization. The importance of empowering individuals to become active participants in their personal as well as community's safety is a valuable component of emergency preparedness. The federal government should expand its role in ensuring that its citizens are well informed and prepared for the unanticipated events following disaster. Programs should begin with our children and utilize the resources of our first responders to train them in age appropriate

first aid techniques. Efforts should be strengthened through our churches, colleges, job sites and civic groups to encourage individuals to affiliate with relief organizations. Various social media outlets as well as television and radio may also prove effective in disseminating this information. Through the establishment of a national data base, volunteers can register, and receive necessary training and education preemptively. Furthermore, consistency among communities in the manner in which volunteers are used is necessary to abate chaos and capitalize on the value of this resource. The organization of active local VOADs coupled with offsite Disaster Volunteer Centers is an excellent means of coordinating this effort during times of disaster.

Lastly, it is equally as important that cities and states receive the education and resources they need to develop comprehensive emergency management programs as well as to revise existing plans in order to improve safety in their communities. It is often said that experience is the best teacher. Therefore, the establishment of effective interstate communication outlets would be an instrumental tool in the dissemination of information among states, particularly information from areas that have experienced disaster and have garnered valuable information in the process. The opportunity to network with those who have experienced crisis and tested their plans can provide useful insight to communities facing adversity for the first time. From a small aspect, such as including an extra set of car keys in a preparedness kit, to a larger operation, like a more established continuity of government, communities will be better equipped and ready to respond when disaster strikes. Additionally, uniformity among governments and their emergency management plans allows bordering states and communities the ability to offer critical assistance during difficult times with less disruption in emergency operations.

Given the information gleaned from this analysis and utilizing the mentioned recommendations, I propose an emergency management plan which can be found in Table 6 below. I attest that city governments could benefit from a uniform approach. Consistency among emergency management plans is imperative if a comprehensive and cohesive approach to disaster response is expected. In no way do I discount the efforts employed to develop strong emergency plans in the cities studied. However, I appreciate the opportunity to progress disaster response through the integration of communal terminology, advancement of volunteer utilization, and optimization of plans that mimic one another in their approach and format.

Table 6. Proposed Emergency Operations Plan (EOP)

Section	Description
INTRODUCTION	Clearly defines the purpose and mission of the emergency
	management department and its plan. Establishes ownership
	of the plan and responsible party for plan implementation.
	Gives specific details regarding the area's geography as well
	as a risk assessment of probable disasters.
CONTINUITY OF GOVERNMENT	Defines succession of leadership at the local and state level as
	well as within the emergency management department.
	Focuses on local resources, with implementation of state-
	level resources when necessary. Utilizes Federal resources as
	a last resort, as the reliability and speed of response is not
	always predictable.
TYPES OF EMERGENCIES AND DISASTERS	Outlines potential disasters that a region may be predisposed
	to.
	Utilizes a standardized national disaster staging tool to rate
	severity of disaster
CONCEPT OF OPERATIONS	Clearly defines roles and responsibilities of emergency
	management team during disaster response.
	Designates individuals responsible for declaring a state of
	emergency.
	Applies federal protocols to local response operations.
PREPAREDNESS EFFORTS	Describes contents recommended in a federally approved
	preparedness kit and encourages citizens to prepare kits prior
	to disaster. Provides additional recommendations for distinct
	preparedness kits (i.e. family, children, pet, elderly, family
	members with disabilities).
	Imparts accountability to citizens for their role in disaster
	preparedness.
	Provides first aid training programs and disaster education to
	children.
	Includes information of local VOADs and encourages
	affiliation.

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	Outlines the roles and responsibilities of city departments in
	disaster preparedness.
	Provides a schedule of disaster management meetings
	between the emergency management department and all city
	departments to assure clear communication.
OUTREACH	Operates as an extension of preparedness efforts,
	incorporating quarterly community-wide events to educate
	citizens on emergency preparedness.
	Recruits volunteers and encourages affiliation with partnered
	relief organizations.
	Utilizes radio, TV, and social media outlets as methods of
	outreach.
	Includes church, school, hospital, civic organization, and
	employer support of disaster preparedness programming.
	Implements communication between neighboring
	communities and states to develop important relationships
INCIDENT ACTIONS	that may be crucial during disaster response and recovery.
INCIDENT ACTIONS	Highlights logistics of emergency management operations. Institutes measures that utilize local resources within city
	government and the community upon declaration of
	emergency.
	Provides a protocol for how and when state-level resources
	will be accessed, and lastly, the engagement of federal
	resources.
RESOURCES AND ROLE OF RESPONSIBILITIES	Develops and defines affiliations outside of the emergency
	management department and city departments (i.e.
	universities, hospitals).
	Defines criteria for the institution of a Multiagency
	Coordination Center (MAC), and an Emergency Operations
	Center (EOC). The MAC acts as an outlet and centralized
	location for city government departments to collaborate. The
	EOC serves as an on-site location for the emergency
VOLUNTEER MANAGEMENT	management department to conduct its responsibilities.  Establishes a Disaster Volunteer Center off site, when
VOLUNTEER MANAGEMENT	indicated, to register, train, and assign responsibilities to
	spontaneous volunteers.
	Assigns a Liaison Officer to manage the Disaster Volunteer
	Center and to serve as a liaison, coordinating needs with
	available volunteer resources.
	Liaison Officer works closely with the local VOAD to
	coordinate volunteer resources safely and efficiently.
COMMUNICATIONS	Assigns a Public Information Officer to disseminate accurate
	information to the media. Additionally, the Public
	Information Officer manages the social medial account and
	communicates official messages from the emergency
	management office to the public.
ADMINISTRATION	Defines administrative duties in relation to finances, disaster
POST BUODENT CONONS	reporting, and document protection.
POST-INCIDENT ACTIONS	Utilizes information from recovery, restoration, and
	revitalization operations to make important decisions
	regarding post incident actions. The efforts could be long-
	term or short-term, depending on the magnitude of the
	disaster.
	Assesses disaster response and relief efforts and utilizes this information to make recommendations for plan revisions and
	development.
PLAN DEVELOPMENT	Utilizes disaster management information to amend the EOP
I DAIL DE LEGI MENT	as indicated.
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# **Chapter 6-Conclusion**

The valiant efforts of the mentioned city governments and their emergency management departments are commendable. It is evident that the safety and preservation of lives is of utmost importance. Yet, it is only through experience and careful examination that the effectiveness of these emergency management plans and their operations can be tested.

Utilizing the information garnered in this analysis, one thing is clear: Emergency management is a complex and exhaustive entity. It is evident that many aspects of disaster management cannot be easily altered due to local and state regulations. However, the utilization of volunteers, and in particular spontaneous volunteers, is one area exempt from many of these regulatory challenges. While there are numerous reputable relief organizations available for affiliation, the fact remains that numerous individuals are compelled to respond spontaneously in times of disaster. This instinctive trait, while noble, presents numerous challenges that jeopardize the safety of these individuals as well as disrupt the operations of emergency response. Therefore, it is essential that directives be initiated at the federal level to ensure that this valuable resource is utilized safely and in a manner that coordinates their skills and expertise with appropriate tasks. Through the implementation of a federal guideline, spontaneous volunteers can adequately apply the operational mandates and directives from one city to another. Time is critical during a disaster, and the elimination of wasted hours to educate, inform, and train is vital to efficient emergency response operations.

As determined in this analysis, the utilization of spontaneous volunteers is managed differently among the plans examined. Coordinating these efforts consistently and uniformly among all communities would provide a more predictable outcome for success. In fact, each of the three plans utilize valuable strategies for managing volunteers, but the overall approach is underdeveloped. By combining the efforts of each, a cohesive and comprehensive management solution can be established. Therefore, I propose the implementation of three key elements to the volunteer management section of all emergency management plans:

- 1) Establishment of a Disaster Volunteer Center
- 2) Coordination with local Volunteers Active in Disaster (VOAD)
- 3) Assignment of a Volunteer Management Liaison

To begin, it is imperative that a decentralized Disaster Volunteer Center be established during times of adversity in order to remove this aspect of emergency response from the critical operations of a command center. Likewise, it is necessary that a Liaison Officer be assigned to activate volunteer operations through the utilization of local VOADs. Furthermore, the Liaison Officer would serve as critical component of disaster response by bridging the gap between emergency management officials and volunteer leadership, communicating needs and resources among the two entities.

Through this model, spontaneous volunteers would be directed to the volunteer center, along with the partnered organizations. There, spontaneous volunteers would be assessed, registered, trained, and assigned responsibilities. Critical to this operation is the necessity for local VOAD participation. Local VOADs are familiar with the area, its resources, and its needs. Their connection to the area provides for a prompt and timely response to

disaster. Therefore, it is essential that local VOADs be established as their expertise and knowledge to the region is crucial.

To conclude, this thesis has sought to examine preparedness efforts and the implementation of volunteer management within emergency management planning. While varying differences are noted among the three plans discussed, attempts at developing comprehensive and cohesive strategies toward emergency management are often restrained due to variances across local and state jurisdictions. However, the role of volunteer utilization is one area immune from many of these regulatory constraints. Thus, there is great opportunity to develop a comprehensive and uniform policy that crosses community boundaries and state borders. I truly believe that with willful intent, emergency management teams can work collaboratively to establish complementary guidelines to effectively utilize spontaneous volunteers. By tapping into this valuable and committed resource, disaster response efforts will be strengthened, and community recovery can be optimized.

#### References

- "The 1971 San Fernando Earthquake." Effects of the Loma Prieta Earthquake,

  October 17, 1989, San Francisco Bay Area,

  www.johnmartin.com/earthquakes/eqpapers/00000017.htm.
- "1994 Northridge Earthquake." *History.com*, A&E Television Networks, www.history.com/topics/natural-disasters-and-environment/1994-northridge-earthquake.
- "About the Agency." Emergency Support Function Annexes | FEMA.gov, www.fema.gov/about-agency.
- "All Hazards Preparedness." *All Hazards Preparedness* | *Baton Rouge, LA*, www.brla.gov/1811/All-Hazards-Preparedness.
- "ARES/RACES (Amateur Radio Emergency Services/Radio Amateur Emergency Services) | Spokane County, WA." Spokane County, Washington, www.spokanecounty.org/1813/ARESRACES-Amateur-Radio-Emergency-Servic.
- "Ash Wednesday 1962: The Most Extreme Nor'easter on Record to Hit the Mid-Atlantic Coast." *The Weather Channel*, The Weather Channel, weather.com/storms/winter/news/march-1962-ash-wednesday-storm-noreaster-mid-atlantic.
- "Basic Plan." Mayor's Office of Homeland Security & Emergency Preparedness

  (MOHSEP) | Baton Rouge, LA, www.brla.gov/412/Mayors-Office-of
  Homeland-Sec-Emergency-

- Britannica, The Editors of Encyclopaedia. "Reconstruction Finance Corporation." *Encyclopædia Britannica*, Encyclopædia Britannica, Inc., 1 Feb. 2015, <u>www.britannica.com/topic/Reconstruction-Finance-Corporation</u>.
- "Build a Kit | Spokane County, WA." Spokane County, Washington,
  www.spokanecounty.org/1778/Build-a-Kit.
- "Business Preparedness." Business Preparedness | Baton Rouge, LA, www.brla.gov/1908/Business-Preparedness.]
- "City of OKC." *Emergency Management* | *City of OKC*, 2017, www.okc.gov/residents/prepare-okc/emergency-management.
- "COAD (Community Organizations Active in Disaster) | Spokane County, WA."

  Spokane County, Washington, 2016, www.spokanecounty.org/1903/COADCommunity-Organizations-Active-in-D.
- "Comprehensive Emergency Management Plan | Spokane County, WA." Spokane County, Washington, www.spokanecounty.org/1923/Comprehensive-Emergency-Management-Plan-.
- Coppola, Damon. "Introduction to Crisis, Disaster, and Risk Management

  Concepts." *Hamronotes*, 31 Aug. 2018, hamronotes.com/lessons/introductionto-crisis-disaster-and-risk-management-concepts/
- "DART (Disaster Assistance Response Team) | Spokane County, WA." Spokane County, Washington, www.spokanecounty.org/3922/DART-Disaster-Assistance-Reponse-Team.
- "Evaluation Briefs No. 18." *CDC*, Jan. 2009, www.cdc.gov/healthyyouth/evaluation/pdf/brief18.pdf.
- "Family Preparedness." Family Preparedness | Baton Rouge, LA, www.brla.gov/1812/Family-Preparedness.

- "Federal Civil Defense Act of 1950.". "Federal Civil Defense Act of 1950." *The Columbia Encyclopedia, 6th Ed*, Encyclopedia.com, 2018, www.encyclopedia.com/history/encyclopedias-almanacs-transcripts-and-maps/federal-civil-defense-act-1950.
- "Federal Civil Defense Administration." *National Archives and Records Administration*, National Archives and Records Administration, catalog.archives.gov/id/10529595.
- Flood Disaster Protection Act of 1973.
- "History of Federal Disaster Policy." Low-Income Housing Tax Credits | HUD USER,
  - www.huduser.gov/portal/periodicals/em/winter15/highlight1\_sidebar.html.
- "Hurricane Betsy." *Hurricanes: Science and Society: Home*, www.hurricanescience.org/history/storms/1960s/betsy/.
- "Hurricane Iniki." *Local Weather from AccuWeather.com Superior Accuracy* TM, www.accuweather.com/en/weather-news/hurricane-iniki-the-most-power/72515.
- Jacobo, Julia, and Joyeeta Biswas. "Armed with Boats and Air Mattresses, Cajun Navy Rescues 160 Trapped by Florence." *ABC News*, ABC News Network, 14 Sept. 2018, abcnews.go.com/US/cajun-navy-mobilizes-volunteers-boats-carolinas-ahead-hurricane/story?id=57799162.
- "James Lee Witt." A Social History of Dying | Clinton School of Public Service

  Speaker Series, www.clintonschoolspeakers.com/content/james-lee-witt.
- "JR CERT." Junior Community Emergency Response Team (JR CERT) | Baton Rouge, LA, www.brla.gov/1360/Junior-Community-Emergency-Response-Team.

- "Know What to Do." *Know What To Do | City of OKC*, www.okc.gov/residents/prepare-okc/know-what-to-do.
- "LEPC (Local Emergency Planning Committee) | Spokane County, WA." Spokane County, Washington, www.spokanecounty.org/1866/LEPC-Local-Emergency-Planning-Committee.
- "Louisiana VOAD." CommunityOS, lavoad.communityos.org/cms/home.

National Disaster Resilience Competition.

- "National Flood Insurance Program." *The Fed Money Stock and Debt Measures H.6 Release April 26, 2018*, Board of Governors of the Federal Reserve System (U.S.),

  www.federalreserve.gov/boarddocs/rptcongress/flood/default.htm.
- Organization. "20 Facts About Hurricane Andrew." *The Huffington Post*,

  TheHuffingtonPost.com, 24 Aug. 2012,

  www.huffingtonpost.com/2012/08/21/20-facts-hurricane-andrew-anniversary n 1819405.html.
- "Pet Preparedness." *Pet Preparedness* | *Baton Rouge, LA*, www.brla.gov/1814/Pet-Preparedness.
- "Post-Katrina Emergency Management Reform Act." *IS-200.HCa Applying ICS to Healthcare Organizations*, emilms.fema.gov/IS230c/FEM0101200.htm.
- "Prepare OKC." Prepare OKC | City of OKC, www.okc.gov/residents/prepare-okc.
- "Project Impact: Building A Disaster-Resistant Community." *Emergency Support*Function Annexes | FEMA.gov, www.fema.gov/news
  release/1999/11/22/project-impact-building-disaster-resistant-community.
- "Public Outreach." *Public Outreach* | *Baton Rouge, LA*, www.brla.gov/1362/Public-Outreach.

- Rainey, Richard. "11 Years after Katrina, FEMA Has Learned from Its Failures."

  \*\*NOLA.com\*\*, NOLA.com\*, 27 Aug. 2016,

  www.nola.com/politics/index.ssf/2016/08/11\_years\_after\_katrina\_fema\_ha.ht

  ml.
- Revolvy, LLC. "Disaster Relief Act of 1974'." *Revolvy*, www.revolvy.com/topic/Disaster%20Relief%20Act%20of%201974.
- "San Francisco Earthquake of 1989." *History.com*, A&E Television Networks, <a href="https://www.history.com/topics/natural-disasters-and-environment/1989-san-francisco-earthquake">www.history.com/topics/natural-disasters-and-environment/1989-san-francisco-earthquake</a>.
- "SAR Council and Teams | Spokane County, WA." Spokane County, Washington, <a href="https://www.spokanecounty.org/4041/SAR-Teams">www.spokanecounty.org/4041/SAR-Teams</a>.
- "Spokane County Search and Rescue | Spokane County, WA." *Spokane County, Washington*, www.spokanecounty.org/1757/Search-Rescue.
- "Task Force 75." Disaster Response | United States | Task Force 75 Inc. NFP, www.taskforce75.org/about-us.
- "The 1971 San Fernando Earthquake." Effects of the Loma Prieta Earthquake,

  October 17, 1989, San Francisco Bay Area,

  www.johnmartin.com/earthquakes/eqpapers/00000017.htm.
- "Tornadoes." *Tornadoes* | *City of OKC*, www.okc.gov/residents/prepare-okc/know-what-to-do/tornadoes.
- US Department of Commerce, and NOAA. "Hurricane Audrey." *National Weather Service*, NOAA's National Weather Service, 13 Sept. 2016, www.weather.gov/lch/audrey.

- US Department of Commerce, and NOAA. "Hurricane Camille August 17, 1969."

  National Weather Service, NOAA's National Weather Service, 4 Dec. 2016,

  www.weather.gov/mob/camille.
- US Department of Commerce, and NOAA. "Hurricane Hugo." *National Weather Service*, NOAA's National Weather Service, 4 May 2017, www.weather.gov/ilm/HurricaneHugo.
- "Volunteer Opportunities | Spokane County, WA." *Spokane County, Washington*, www.spokanecounty.org/1811/Volunteer-Opportunities.
- "WA State Region 9 | Spokane County, WA." *Spokane County, Washington*, www.spokanecounty.org/1914/WA-State-Homeland-Security-Region-9.
- "What Is Red Stick Ready? ." *Red Stick Ready* | *Baton Rouge, LA*, www.brla.gov/1587/Red-Stick-Ready.
- "Who Joined DHS." *Department of Homeland Security*, 15 Sept. 2015, www.dhs.gov/who-joined-dhs.
- "Whole Community Preparedness." *Whole Community Preparedness* | *Baton Rouge, LA*, www.brla.gov/1909/Whole-Community-Preparedness.