

EMERGENCY OPERATIONS PLAN (EOP)

**Boone County Office of Emergency Management
2145 County Drive
Columbia, MO 65202**

2021 Edition

SECURITY AND PRIVACY STATEMENT

This document is **For Official Use Only**. Portions of the Plan contain information that raises personal privacy or other concerns, and those portions may be exempt from mandatory disclosure under the Freedom of Information Act (see 5 United States Code §552, 41 Code of Federal Regulations Part 105- 60). This document is to be controlled, stored, handled, transmitted, distributed and disposed of in accordance with all local, state and federal laws and regulations, and is not to be released without prior approval of Boone County Commissioners or any individual authorized to grant permission on their behalf.

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FOREWORD

The Boone County Office of Emergency Management has developed this Emergency Operations Plan to define Boone County’s capabilities and guide disaster response. This plan is developed and maintained as required by local executive order, pursuant to Missouri State Law, Revised Statutes of Missouri RSMo Chapter 44, and the all-hazard emergency planning guidance developed by the State Emergency Management Agency (SEMA). This plan is designed to be consistent with the federal government’s National Response Framework (NRF) and the State of Missouri’s Emergency Operations Plan (SEOP), so that local response will seamlessly integrate with state and federal assistance should it be needed.

This plan is based on a comprehensive approach to emergency management, taking into consideration all hazards that may pose a risk to the County and the municipalities contained within it, all phases of emergency management, and all levels of government and the private sector. This document incorporates information gleaned from cooperative planning activities with the agencies and organizations that would support disaster coordination, response and recovery within Boone County.

PROMULGATION STATEMENT

Officials of Boone County, Missouri, in conjunction with the State Emergency Management Agency have developed this Boone County Emergency Operations Plan (EOP) to enhance emergency and disaster response and recovery capability.

The EOP is designed to promote the coordination of County, regional and statewide emergency services, and the use of available resources to minimize the effects of a major disaster (natural or otherwise) on life and property of the citizens of Missouri and particularly those of Boone County and the municipalities within the County. It also incorporates the principles and processes of the National Incident Management System (NIMS) and the Incident Command System (ICS) in accordance with Boone County Resolution 406-2005. The Boone County Order of Resolution is legally executed and non-expiring.

This plan, when used properly and updated annually, can assist local government officials in responding to and recovering from the effects of natural and man-made disasters. This plan and its provisions are official immediately as signed and dated below by the concurring government officials. This EOP edition supersedes all previous editions.

Therefore, in recognition of the emergency management responsibilities of Boone County government and with the authority vested in this Commission as the executive governing body of Boone County, we hereby promulgate the Boone County Emergency Operations Plan.



Daniel K. Atwill - Presiding Commissioner

12.22.2020

Date

Boone County, Missouri



Fred Parry - Commissioner, 1st District

12.22.2020

Date

Boone County, Missouri




Janet M. Thompson - Commissioner, 2nd District

12.22.2020

Date

Boone County, Missouri



Chad Martin - Emergency Management Director

1/4/2021

Date

Boone County Office of Emergency Management

BOONE COUNTY RESOLUTION 604-2020

CERTIFIED COPY OF ORDER

604 -2020

STATE OF MISSOURI

} ea.

December Session of the October Adjourned

Term. 20 20

County of Boone

In the County Commission of said county, on the 22nd day of December 20 20

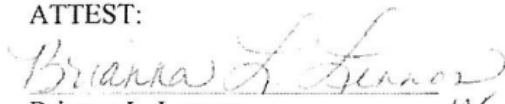
the following, among other proceedings, were had, viz:

Now on this day, the County Commission of the County of Boone does hereby adopt the Boone County Emergency Operations Plan attached to this order. The Boone County Emergency Operations Plan (EOP) plan has been prepared to meet state and federal requirements and is a "living document" that is revised as needed based on lessons learned and opportunities for improvement identified through drills, exercises and incidents, and changes in government structure and emergency organizations. The components and supporting elements of the plan will be reviewed and updated as necessary, but no less than annually.

The plan is not designed to be a checklist of emergency/disaster actions, or to take the place of valid agency or departmental plans, operating procedures, or guidelines. Individuals and agencies having responsibilities set forth in this plan may have to supplement its provisions during a disaster using resources that are available and actions that are possible to meet incident requirements. The information contained in this plan should be used as flexible response guidelines rather than as rigid procedures.


Done this 22nd day of December 2020

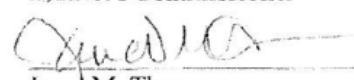
ATTEST:


Brianna L. Lennon
Clerk of the County Commission



Daniel K. Atwill
Presiding Commissioner


Fred J. Party
District I Commissioner


Janet M. Thompson
District II Commissioner

BOONE COUNTY RESOLUTION 406-2005

CERTIFIED COPY OF ORDER

406 12005

STATE OF MISSOURI

County of Boone

} ea.

October Session of the October Adjourned

Term. 20 05

In the County Commission of said county, on the

13th

day of October

20 05

the following, among other proceedings, were had, viz:

Now on this day the County Commission of the County of Boone does hereby adopt the following resolution:

BE IT RESOLVED BY THE BOONE COUNTY COMMISSION OF THE COUNTY OF BOONE AS FOLLOWS:

The Boone County Commission establishes the National Incident Management System as the standard for incident management for the County of Boone. The Department of Homeland Security (HLS) is requiring all political subdivisions adopt this system to be used by all emergency and disaster responders.

The incident management system has been an integral part of the Columbia/Boone County emergency Operation Plan since April 2004.

Done this 13th day of October, 2005.

ATTEST:


Wendy S. Noren
Clerk of the County Commission


Keith Schmaus
Presiding Commissioner


Karen M. Miller
District I Commissioner


Skip Elkin
District II Commissioner

PLAN REVIEW, MAINTENANCE AND DISTRIBUTION

The Boone County Emergency Operations Plan (EOP), its components and supporting elements will be reviewed and updated as necessary, but no less than annually, usually during the 1st quarter of the year. Revisions will be made throughout the year as needed based on lessons learned from events, deficiencies identified through drills, exercises and incidents, and changes in government structure and emergency organizations.

Each organization/agency with an assigned task is responsible for the development and maintenance of its respective segments of the plan. Agencies of the County, partners, assisting agencies and stakeholders that maintain appendices and/or procedures that are a part of this plan shall review annually that portion of the plan pertaining to their function. These partners should submit updates and changes to the EOP to the Boone County Office of Emergency Management (BCOEM) for incorporation into the most current edition of the plan. Updates and changes will be received, discussed, reviewed and accepted during in-person or conference call meetings, or by email.

The Boone County Office of Emergency management will coordinate with officials and stakeholders for annual maintenance, distribution, exercise and evaluation of this plan.

Element Reviewed	Date of Last Review	Individuals Conducting Review
Base Plan	10-27-20 11-05-19	Brenda Gerlach-SEMA Steve Crosswhite – City of Sturgeon
ESF-1 Transportation	10-27-20 11-04-19 05-09-18 05-04-18 05-07-18 05-29-18	Brenda Gerlach-SEMA Jason Thomas-COU Darin Ford-BCRB Capt. Michael Turner-MSHP Chris Engelbrecht-MODOT Jack Heusted-OATS
ESF-2 Communications and Warning	10-27-20 06-05-18 11-06-19 06-05-18	Brenda Gerlach-SEMA Chad Martin-BCJC Stirling Williams-BCJC Jason Thomas-SBCFPD
ESF-3 Public Works	10-27-20 06-10-18 06-11-18 06-07-18 06-22-18	Brenda Gerlach-SEMA John Wulff-Columbia W&L Greg Edington-BCR&B Mike Guilford-Columbia Fleet Operations Jimmy Goodnight-Boone Electric
ESF-4 Fire and Rescue	10-27-20 11-04-19 05-22-18 05-22-18 05-19-18 05-22-18 05-24-18 05-29-18	Brenda Gerlach-SEMA Jason Thomas-COU, SBCFPD Randy White-CFD Dwayne Carey-BCSD Jake Waller-MU EMS Misty Jones-UMC EMS David Kelb-SPD Chad Martin-BCJC

	05-22-18	Lyn Woolford-APD
ESF-5 Information and Planning	10-27-20	Brenda Gerlach-SEMA
ESF-6 Mass Care and Human Services	10-27-20	Brenda Gerlach-SEMA
	11-01-19	Melissa Wilding – Red Cross
	01-09-20	Steve Hollis - PHHS
ESF-7 Resource and Supply	10-27-20	Brenda Gerlach-SEMA
ESF-8 Health and Medical	10-27-20	Brenda Gerlach-SEMA
	11-20-19	Rebecca Estes-PHHS
	08-28-18	Jake Waller-UMC EMS
	08-22-18	Jason Thomas-COU, SBCFPD
	08-21-18	Joshua Stilly-MU Healthcare
	11-20-19	Pat Van Hunnik-MU Healthcare, Reg F HCC
	11-20-19	Mike Cook – VA Hospital
	11-20-19	Stirling Williams – BCJC
	11-20-19	Kerry Lewis – Family Health Center
ESF-9 Search and Rescue	11-07-19	Bryant Gladney - BCFPD
	10-27-20	Brenda Gerlach-SEMA
	06-20-18	Jason Thomas-SBCFPD
	06-20-18	Tim Kribs - CentPD
	06-20-18	Lyn Woolford-APD
	06-21-18	John Gordon-CPD
ESF-10 Hazardous Materials	06-25-18	Doug Schwandt-MUPD
	10-27-20	Brenda Gerlach-SEMA
ESF-11 Animal Care	10-27-20	Brenda Gerlach-SEMA
ESF-12 Energy	10-27-20	Brenda Gerlach-SEMA
ESF-13 Public Safety/Law Enforcement	10-27-20	Brenda Gerlach-SEMA
	11-12--19	John Gordon - CPD
ESF-14 Long Term Recovery	10-27-20	Brenda Gerlach-SEMA
	01-09-20	Steve Hollis - PHHS
All COU references	11-27-19	Michael Parks – COU, Stacy Button – REDI, John Gordon - CPD

RECORD OF CHANGES

Change Date	Description of Change	Person(s) Making Change
2017	<p>The Boone County EOP underwent major revisions during 2017. Total content was reviewed for accuracy and edited accordingly. The layout format changed to reflect a more organized and easier to read document. The appendices were reviewed and all references to another annex, appendix and/or attachment were checked to ensure accuracy. Additional content was included to meet the requirements of the ESF format.</p> <p>In addition, all names and contact information were updated and removed from the main EOP and placed into an “EOP Contact and Resource Guide”. This will enable annual updates to be made primarily to the information in the EOP Contact and Resource Guide rather than the entire EOP document.</p>	Sherril Gladney
March 2018	Official change to ESF format	Sherril Gladney
052119	Edited plan review, maintenance and distribution	Sherril Gladney
011619	Replaced Tier II information in ESF-10 with most updated information	Sherril Gladney
081319	Added Modular Emergency Medical System to ESF-8 under “Surge and Alternate Care Sites”	Sherril Gladney
013020	Inserted updated animal population and siren maps into ESF-11 and ESF-2	Sherril Gladney
020320	Updated Table of Contents; Formatted page numbers of all ESFs; updated version put on website	Sherril Gladney
020221	Updated review dates. Changed all ESF-5 titles to “Information and Planning”. Added 211 information to ESF-6; Remove designations of primary and secondary agencies in each ESF. Changed all references from Boone County Sheriff’s Department BCSD to Boone County Sheriff’s Office BCSO	Sherril Gladney
031921	Updated census information	Sherril Gladney
010422	<p>Inserted signed Promulgation Statement p.5</p> <p>Inserted Boone County Resolution 604-2020 p.6</p> <p>Updated page numbers and Table of Contents</p>	Sherril Gladney

DISTRIBUTION LIST

Below is a generalized list of partners who have a role in the development, maintenance and utilization of the Boone County EOP, and to whom the plan is distributed for input, review and implementation.

Animal welfare agencies
Government and private stakeholder agency public information officers
Boone County government offices and departments
Boone County Local Emergency Planning Committee (LEPC)
Economic and business development agencies
City of Ashland government offices and departments
City of Centralia government offices and departments
City of Columbia government offices and departments
City of Hallsville government offices and departments
City of Harrisburg government offices and departments
City of Hartsburg government offices and departments
City of Pierpont government offices and departments
City of Rocheport government offices and departments
City of Sturgeon government offices and departments
Columbia Housing Authority (CHA)
Columbia Regional Airport (COU)
Fire service agencies/departments
Hospitals, emergency medical services and health care agencies
Volunteer, charitable and human service organizations
Media outlets
County and municipal law enforcement agencies within Boone County
National Weather Service St. Louis (NWS)
Private businesses and service providers
Regional preparedness and response partners
Public and private schools and higher educational institutions
State and federal agencies with stakeholder interests within, or in support of, Boone County
Public and private transportation agencies
Public and private water, sewer and utilities agencies
Public and private public works and street departments
Public and private energy providers
University of Missouri education and healthcare offices, departments and colleges within Boone County

DISTRIBUTION RECORD

	Number of Copies Delivered	Method of Delivery	Name, Title, Organization of Receiver
110119	Draft copy for review	email	Stakeholder partners (listed above)
020320	Posted on website for public viewing		
010522	Updated signed version posted on website for public viewing		

PURPOSE, SCOPE, STRUCTURE AND INTEGRATION

PURPOSE

The purpose of this plan is to establish guidance to promote coordination between local, regional, state and federal resources in response to any natural or man-made disaster within Boone County. The plan outlines specific roles and responsibilities for local government officials and agencies, and cooperating private or volunteer organizations to respond effectively to disasters to save lives, minimize injuries and protect property. It establishes guidelines for conducting efficient, effective, coordinated emergency operations involving the use of all resources belonging to these jurisdictions or available to them.

Although every effort has been made to make the response provisions of the plan parallel to the normal functions of all agencies and departments, it is developed as a guide for operations in a disaster or major emergency. It is not intended for the conduct of day-to-day operations.

The plan has been prepared to meet state and federal requirements and is not designed to be a checklist of emergency/disaster actions, or to take the place of valid agency or departmental plans, operating procedures, or guidelines. Individuals and agencies having responsibilities set forth in this plan may have to supplement its provisions during a disaster using resources that are available and actions that are possible to meet incident requirements. The information contained in this plan should be used as flexible response guidelines rather than as rigid procedures.

SCOPE

This plan provides the framework for emergency and disaster response to all natural and man-made threats and hazards to which Boone County is vulnerable. It is a whole community plan to be carried out by all participating departments and agencies of the jurisdictions within the geographical boundaries of Boone County, as well as numerous community partners.

STRUCTURE OF PLAN

The Emergency Operations Plan (EOP) is a multi-hazard functional plan separated into three components: 1) the Basic Plan which is an overview of the County's approach to emergency and disaster management, 2) the 15 Emergency Support Function (ESF) annexes that support the Basic Plan and provide more depth and detail to support response functions, and 3) appendices which provide specific guidance and support for each ESF. The ESF structure is based on the concept that there are certain response functions consistent for all disasters regardless of cause, size, type or severity. ESFs are the way we organize across departments and agencies, community organizations, and industries to enhance coordination and integration to deliver the response core capabilities as outlined in the National Response Framework. By organizing plans and response efforts around these common functions, the County is better prepared for all disasters.

The plan incorporates the principles of the National Incident Management System (NIMS) and the Incident Command System (ICS) to support Boone County government, municipalities, and response agencies who have adopted NIMS and ICS as the standard for incident response and management.

PLAN INTEGRATION

While the EOP is the primary document establishing how Boone County will coordinate response activities in disasters, response relies on a suite of carefully integrated and implemented plans. Jurisdictional emergency planning should be coordinated and integrated among all levels of government and with all response partners. The County works with its partners at the local, regional, state and federal levels to ensure that emergency response plans are integrated, allowing for effective, coordinated response to disasters. The following types of emergency plans are all focused on ensuring a coordinated response to meet the needs of a disaster:

Individual, family, and business emergency plans: The public is responsible for preparing for disasters just as the various levels of government do. In large events it is unlikely that everyone's needs will be met immediately. Therefore, the public needs to be prepared. An essential component of this preparedness is creating individual, family and/or business plans that are integrated and coordinated with local response plans and agencies.

First responder plans: Each public safety organization has plans and procedures on how they respond to routine emergencies, and how they expand and coordinate their efforts during disasters. These plans and procedures are consistent with national standards and local systems and structures, thus ensuring a coordinated response in the field.

City emergency operations plans: While most jurisdictions within Boone County adopt this Boone County EOP as their disaster guidance document, they may also choose to maintain plans specific to their municipalities.

Regional planning: Regional planning is an important component to the overall response system. Emergency management directors in Missouri Region F collaborate to ensure an efficient and effective regional response. This plan includes information regarding regional capabilities and responsibilities. [See Appendix 4 for a map depicting Missouri Regionalization].

Missouri Emergency Operations Plan: The Missouri State Emergency Operations Plan (SEOP) is the document that describes how the State of Missouri will coordinate its resources and efforts in response to disasters in Missouri. The Boone County EOP has been developed to align with the operations of the State of Missouri to provide a coordinated, efficient disaster response.

National Response Framework (NRF): The NRF describes how the nation will coordinate its response during disasters. It focuses primarily on how the federal government is organized to support communities and states in performing immediate actions needed to save lives, protect property and environment, and meet basic human needs.

National Incident Management System (NIMS): NIMS provides first responders and authorities across the nation a consistent framework for incident management, regardless of the cause, size, or complexity of the incident. Boone County emergency planning, preparedness and response integrates NIMS by:

- Using ICS and Multiagency Coordination Systems (MACS) to manage and support all incidents.
- Integrating all response agencies and entities into a single, seamless system.
- Identifying and characterizing resources per established standards and types.

- Recognizing standards for all personnel to be qualified for the jobs they perform.
- Ensuring interoperability, accessibility, and redundancy of communications.

SUPPORTING DOCUMENTS

The general policies and roles and responsibilities contained in the EOP may necessitate the development of supporting plans and documents. The most common of these documents are:

Emergency operational guides (EOGs): EOGs are documents that provide detailed information utilized to accomplish specific emergency functions as outlined in this or other recognized plans. EOGs may be produced by any agency or organization, public or private, with responsibilities contained in these plans.

Emergency operations checklists: Checklists provide step-by-step guidance needed to perform time-critical emergency operations functions. While their use should never replace informed judgment by emergency personnel, they do facilitate rapid accomplishment of standard actions needed in an emergent situation.

Resource lists: Lists using NIMS resource typing where applicable contain detailed information on personnel, technology, equipment, facilities, material and supplies obtainable from contractors, vendors, suppliers, related agencies of federal, state, and local governments, and public and private associations, which may be needed in an emergency/disaster situation.

Memoranda of Understanding (MOU) or Agreement (MOA): It is occasionally necessary or desirable for agencies or organizations to specifically outline mutually agreed-upon responsibilities and procedures relating to emergency situations. This is sometimes the case when dealing with private organizations which agree to assume responsibilities in cooperation with government during emergencies/disasters. Such documents may be adopted between and among any government or private entities; however, jurisdictional plans should reference and summarize such memoranda as appropriate.

BASE PLAN

SITUATION

Boone County is a Class 1 non-charter county – defined as having assessed valuation of \$900 million maintained for 5 years - located in the central part of Missouri between Kansas City and St. Louis within the Missouri River Basin. The Missouri River defines the southwestern border of the county, with Cedar Creek forming the county line on the southeast. Counties that border Boone are Randolph on the north, Audrain on the northeast, Callaway on the east, Cole on the south, Moniteau on the southwest, Cooper on the west and Howard on the northwest.

Boone County is traversed by U.S. Highway 63 and Interstate 70 as well as State Highways 124 and 22. They are all traveled by major interstate truck shipments of all types of goods, some of which are classified as hazardous or radioactive materials.

Boone County is serviced or crossed by three railroads, which also haul all types of goods, including hazardous and radioactive materials. These include: COLT Railroad, Norfolk & Western Railroad, and Chicago Missouri & Western Railroad.

Based on the U.S. Census Bureau 2019 estimates, Boone County has an estimated population of 180,463. The largest municipality in Boone County is Columbia, the county seat, with a population of 123,204. Other municipalities in Boone County include Ashland (3,907), Centralia (4,213), Hallsville (1,771), Harrisburg (410), Hartsburg (86), Huntsdale (21), McBaine (10), Pierpont (77), Rocheport (244), and Sturgeon (990) [U.S. Census Bureau 2019 estimates].

The main campus of the University of Missouri is in Columbia, along with three other institutions of higher learning - Stephens College, Columbia College and satellite campus sites for Moberly Area Community College. During periods the institutions are operating, the population of the city and county is much greater than times when classes are not in session. In 2020, the University of Missouri-Columbia had an enrollment of 30,849 students, Stephens College had 622, and Columbia College had approximately 3,000 enrolled at its main campus in Columbia.

The land area of Boone County is 685.43 square miles, elevation of 758 feet above sea level, with an approximate east to west width of 22 miles, and a north to south width of 42 miles. The local economy is based primarily on higher education and research, health care, agriculture, manufacturing, state/federal government, and insurance providers. The gross domestic product (GDP) for the county in 2019 was \$9,795,883 across all industries.

The City of Columbia, the governmental seat of Boone County, constitutes 53.1 square miles and has a council-manager form of government. In Columbia, the University of Missouri (including University Health Care) is the county's largest employer with approximately 17,000 faculty, staff, and administrators.

Boone County and its communities are vulnerable to many hazards, all of which have the potential to disrupt the community, cause damage and create casualties. From historical reference and threat analysis, the following identified natural and technological hazards are the most likely to impact Boone County:

- Severe weather (storms, tornadoes, droughts, floods, snow and ice)

- Hazardous materials incidents
- Earthquake
- Utility failure (power, sewer, water disruption)
- Civil disorder
- Terrorism
- Public health emergency
- Dam or levee failure
- Nuclear attack or power plant incident
- Extreme or prolonged temperatures (heat or cold)
- Cyberattack
- Urban/structural fire
- Wildfire
- Transportation accident
- Land subsidence/sinkholes

Additional information relating to these hazards can be found in the Boone County Hazard Mitigation Plan (2020) <https://www.showmeboone.com/oem/common/pdf/2020BooneCoHazardMitigationPlan.pdf>. Boone County Office of Emergency Management (BCOEM) maintains responsibility for emergency management functions for all unincorporated areas and each municipality within Boone County, except for the town of Huntsdale. Letters delegating BCOEM as the emergency management entity for each of the participating municipalities are on file with the County government.

Boone County and its municipalities have capabilities and resources which, if effectively employed, would minimize or eliminate the loss of life and damage to property in the event of an emergency or major disaster. This includes the utilization of private and volunteer organizations.

Mutual aid agreements, both written and verbal, exist between many of the emergency service agencies and jurisdictions in the county and surrounding regions. Section 44.090 of the Revised Statutes of Missouri also governs mutual aid response into and out of Boone County and its municipalities.

ASSUMPTIONS

While every disaster is different, most disasters share similarities that can be planned for in advance. To create this plan, local authorities utilized the following planning assumptions:

- Disasters may occur at any time, with or without warning or implementation of preparedness measures.
- Disasters in the County could involve multiple jurisdictions across multiple levels of government.
- Disasters in the County may be the result of any number of hazards or threats.
- The public expects the government to coordinate the provision of disaster response and recovery and to keep them informed of such.
- County and municipal officials throughout the County are aware of the potential for occurrence of an emergency or major disaster. They are also aware of their responsibilities in the execution of this plan and will fulfill these responsibilities as needed.

- The proper implementation of this plan will reduce and/or prevent the loss of lives and damage to property in the County and its municipalities.
- A major emergency or disaster in the County may result in injuries, fatalities, property loss and disruption of essential services.
- Disaster would likely require no-notice coordination of resources and responses.
- A major emergency or disaster in the County could overwhelm response organizations and government entities. It may be necessary to request assistance through neighboring jurisdictions, volunteer organizations, the private sector, mutual aid agreements, the state, and/or the federal government.
- A disaster in the County would attract a sizeable influx of spontaneous volunteers and donations.
- Individuals and organizations with responsibilities identified in the EOP will train and maintain proficiency on those responsibilities.
- Regardless of the amount or extent of disaster planning, the EOP cannot address every disaster potentiality. Individuals involved in disaster response and recovery will use this document as a guide but will have latitude to make changes based upon the incident specifics and the knowledge and experiences of the individual.

CONCEPT OF OPERATIONS

The specificities of an incident may make it improper and inadvisable to proceed in a manner simply to implement this plan. Individuals and agencies having responsibilities set forth in this plan must utilize best judgement to manage the incident using available resources and actions that are dictated by the situation.

NATIONAL INCIDENT MANAGEMENT SYSTEM (NIMS)

In accordance with federal mandates, management of local disasters and emergencies will be initiated and conducted using the concepts and principles of NIMS. On-scene management and coordination of responses will utilize the Incident Command System (ICS).

BOONE COUNTY GOVERNMENT

The Presiding Commissioner of Boone County is responsible for those activities in the unincorporated areas of the county (Missouri Code of Regulations Title II, Division 10, Chapter 11). Formal written agreements are on file for Boone County to maintain responsibility for emergency management for most of the municipalities geographically located within the county, as well as the unincorporated areas.

At no time will the County Commission supersede the authority of the elected officials or designees of any of the incorporated subdivisions unless (1) requested to do so by those elected officials, (2) the local subdivisions' governmental body is incapacitated or ceases to exist, or (3) empowered to do so by the governor under the authority of Chapter 44, RSMo.

MUNICIPALITIES

The responsibility for the safety and welfare of the residents of Boone County rests with the respective local governments. Ultimate responsibility and authority within any local jurisdiction reside with the duly elected or appointed officials of that jurisdiction. Command, control and coordination structures during all phases of emergency management are designed to exercise that responsibility. It is the primary responsibility of the elected officials of each affected jurisdiction to specify the priorities and objectives, with input and support from the incident/Unified Command and the Emergency Management Director, that guide disaster response and recovery efforts.

The municipalities and emergency response organizations in the County typically maintain separate but compatible emergency operations plans, safety plans, and/or other emergency management policies and procedures specific to their needs. Businesses, healthcare facilities, schools, citizens, etc. are encouraged to develop plans which are compatible with the County EOP.

RESPONSE AGENCIES

Local public safety agencies will typically be the first responders to most disaster incidents. These agencies will begin to handle these incidents in accordance with their internal policies and procedures until they deem the incident beyond their scope, or the incident requires significant resources and coordination to manage.

EMERGENCY MANAGEMENT

At any time before or during a potential or actual incident, affected agencies and/or jurisdictions may request that any or all the EOP be implemented. OEM may also self-initiate EOP activation and begin planning and support activities.

If there is potential for, or actual implementation of the EOP, the EMD and/or impacted jurisdiction may decide to activate the Boone County Emergency Operations Center (EOC) located at 2145 County Drive. Upon activation of the EOC, BCOEM staff and agency liaisons will provide coordination and support for the incident from that location. On occasion, it may be more prudent to coordinate activities through a virtual EOC or alternate location.

Once an EOC is activated, communication and coordination will be structured organizationally following the Emergency Support Function (ESF) structure outlined in Appendix 1. Upon activation, a representative from each appropriate ESF agency may be requested to report to the EOC. Each ESF will coordinate activities to ensure the roles and responsibilities defined for that ESF in this plan are being met. Additionally, each agency represented in the ESF will ensure its actions support the completion of the operational objectives set by the authorities of the affected jurisdictions.

Detailed processes and procedures for EOC activation and use are maintained by OEM for use by staff and liaisons.

RESOURCE REQUESTS/MUTUAL AID

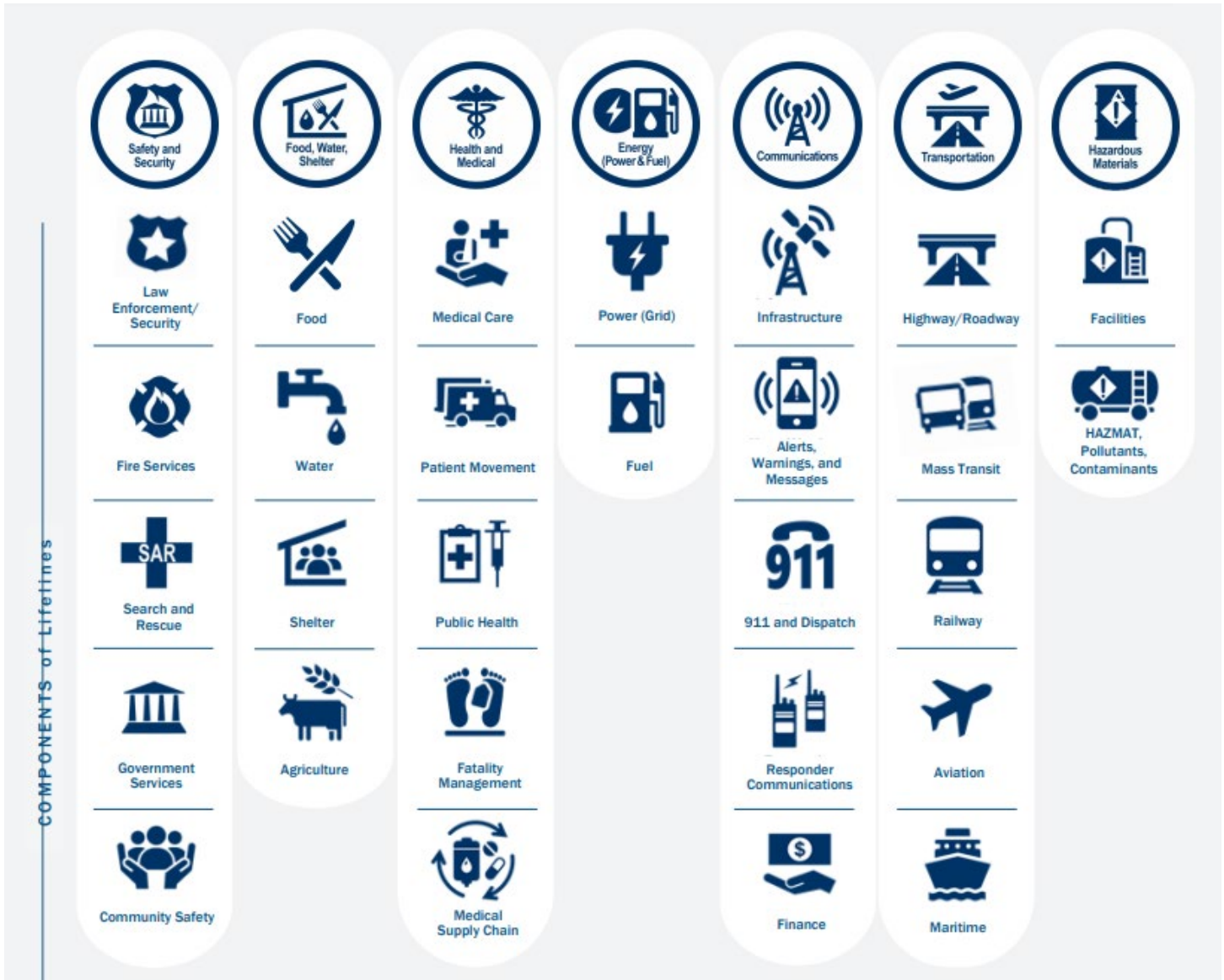
Incidents are best managed at the lowest possible organizational and jurisdictional level. Should the event begin to exceed the capabilities of the local jurisdiction, additional support and resources may be requested from neighboring communities, and/or from the next level of government. For incidents occurring within the County, these requests move along the following progression: local government, county government, Region F (Appendix 3), state government, federal government. Procedures for requesting regional, state and federal assistance are outlined in ESF-7 Resource and Supply. It will be the responsibility of the elected official of each jurisdiction to declare a local state of emergency to initiate support from the state and federal agencies, and to be eligible for reimbursements related to disaster declarations (See Appendix 5 for Disaster Declaration Form template). The disaster situation remains the statutory and financial responsibility of the local jurisdiction regardless of the level of support provided by outside entities.

PUBLIC INFORMATION/WARNING

Communications and public information for disaster events will be coordinated through the EOC and/or the Joint Information System (JIS) if established. This ensures timely and consistent disaster messages exemplifying national standards and best practices. Jurisdictions and agencies with a need to disseminate public information should coordinate that information with the lead disaster Public Information Officer (PIO) in accordance with NIMS concepts and the procedures outlined in ESF-15 Emergency Public Information/External Affairs.

COMMUNITY LIFELINES

Boone County utilizes the community lifelines construct developed by FEMA to increase effectiveness in disaster operations. Lifelines describe the critical services within a community that must be stabilized or re-established to alleviate threats to life and property. A lifeline enables the continuous operation of critical business and government functions and is essential to human health and safety or economic security.



COMMUNITY LIFELINES

ROLES & RESPONSIBILITIES

INDIVIDUALS, FAMILIES, AND BUSINESSES

The public has a responsibility for personal, family and business preparedness for disasters. This can include general awareness, personal and family plans, business continuity planning, and preparation of emergency resources. BCOEM and other partners can encourage and assist this preparation with public outreach and education. By ensuring their own preparedness for disaster events, citizens, businesses and communities can minimize the impact and demand for resources placed on the local jurisdiction.

RESPONSE ORGANIZATIONS

Each response organization is responsible for developing and maintaining policies and procedures on how they will integrate their efforts to support disaster response operations. During disasters, response organizations are responsible for responding to requests for service in accordance with this plan, pre-established MOU's and other relevant plans.

LOCAL GOVERNMENT AGENCIES

Local governments are responsible for ensuring the safety and well-being of their citizens. Each local government agency should appoint a qualified person to serve as the liaison to the BCOEM for planning and response purposes. Additionally, each local authority should ensure that individuals who could reasonably be expected to serve in disaster response roles are adequately trained in NIMS concepts. Local jurisdictions should also ensure that during a disaster, all response operations are coordinated with BCOEM and all requests for regional, state, or federal assistance are channeled through BCOEM in accordance with local, state and federal guidelines.

POLICIES, AUTHORITIES AND REFERENCES

[Boone County Code of Health Regulations](#)

Boone County Code of Regulations - Chapter II, Animal Control Isolation and Quarantine, 2.2-2.8

[Boone County Hazard Mitigation Plan \(revised 2020\)](#)

Boone County Joint Communications Operations Center Manual

Boone County Order 224-2003, Local Emergency Management Regulation

City-County Disaster Preparedness Agreement dated July 16, 1974.

[City of Ashland Code, Chapter 17, Emergency Preparedness](#)

[City of Centralia Ordinances, Chapter 7, Civil Defense](#)

[City of Columbia Code, Chapter 5, Animals and Fowl](#)

[City of Columbia Code, Chapter 7, Civil Defense](#)

[City of Columbia Code, Chapter 11, Health and Sanitation](#)

City of Hallsville Code, Chapter 225, Emergency Management

City of Sturgeon Ordinance, Chapter 3, Article IV: Emergency Management and Civil Defense

Code of State Regulations, Title 11, Division 10, Chapter 11

Columbia/Boone County Memorandum of Agreement for WMD/Terrorism Response Group (Homeland Security Response Team) dated Sept 19, 2001

Columbia/Boone County Public Health and Human Services Emergency Response Plan

Columbia Local Energy Assurance Plan

Emergency Poultry Disease (EPD) Management Plan (Tri-State Area), Oct 1, 2003

[Federal Public Law 93-288, Robert T. Stafford Disaster Relief and Emergency Act \(April 2013\)](#)

[Federal Public Law 99-499, SARA, Title III.](#)

[FEMA Comprehensive Planning Guide \(CPG\) 101 \(v2.0\)](#)

[FEMA Guidance to Planning and Integration of Functional Needs Support Services in General Population Shelters \(FNSS legal authority identified on p. 140\)](#)

Homeland Security Presidential Directives 5 (HSPD-5) and 8 (HSPD-8)

Homeland Security Presidential Directive/HSPD-9 Defense of United States Agriculture and Food

Homeland Security Presidential Directive/HSPD-10 Biodefense for the 21st Century

Joint FEMA Region VII/State of Missouri New Madrid Seismic Zone (NMSZ) Response Operations Plan

[Missouri All Hazards Planning Guidance](#) , SEMA, December 2013.

Missouri Code of State Regulations, Chapter 292, Spill Bill.

[Missouri Code of State Regulations, Title XI, Division 10 Chapter 11](#)

Missouri Department of Health and Senior Services - 19CSR20-20.050 Quarantine or Isolation Practices

Missouri Hazard Analysis, SEMA, as amended

Missouri Revised Statutes Chapter 261 Department of Agriculture

Missouri Revised Statutes Chapter 267 State Veterinarian Regulations

Missouri Revised Statutes Chapter 269 Disposal of Dead Animals

National Incident Management System (2017) and [National Response Framework Fourth Edition \(2019\)](#)

NIMS Resolutions (Columbia Resolution 220-05 and County Resolution 406-2005)

Presidential Decision Directive 39 (PDD-39), U.S. Policy on Counter-Terrorism.

Region F MACC Activation SOP

Revised Statutes of Missouri, 49.070

[Revised Statutes of Missouri, Chapter 44 as amended](#)

State of Missouri Emergency Operations Plan, as amended

[US Department of Justice ADA Best Practices Tool Kit for State and Local Governments – Chapter 7
Emergency Management Under Title II of the ADA](#)

APPENDICES

Appendix 1: Organization by Emergency Support Functions

Appendix 2: EOC Levels and Emergency Classifications

Appendix 3: Missouri Regionalization & Region F Counties

Appendix 4: Disaster Declaration Form

Appendix 5: Acronyms and Definitions

BASIC PLAN APPENDIX 1: ORGANIZATION BY EMERGENCY SUPPORT FUNCTIONS

Emergency Support Function (ESF)	General Roles & Responsibilities (not all inclusive)
ESF - 1 Transportation	<ul style="list-style-type: none"> • Movement of people, materials and resources by land, water and air • Monitor transportation system and infrastructure for damage, gaps, capacity • Coordinate restoration and recovery of transportation system and infrastructure
ESF - 2 Communications	<ul style="list-style-type: none"> • Provide continuous, uninterrupted dispatching services to support disaster response • Ensure availability of voice and data communications to support responding disaster personnel • Assess damage to communications infrastructure and prioritize restoration efforts • Provide for communications links between local EOC and cooperating regional, state and federal resources
ESF - 3 Public Works	<ul style="list-style-type: none"> • Assess, stabilize, prioritize and restore critical infrastructure and transportation systems • Coordinate debris removal operations • Provide support for damage assessments • Provide support and technical expertise in the areas of public works and engineering
ESF - 4 Firefighting and Rescue	<ul style="list-style-type: none"> • Respond to and mitigate calls for emergency service • Utilize mutual aid agreements to maintain continuous level of service coverage
ESF - 5 Information and Planning	<ul style="list-style-type: none"> • Notify appropriate stakeholders following disaster event • Initiate disaster response and resource coordination • Ensure appropriate declaration and financial processes are utilized • Request additional resources as needed from regional, state and federal partners • Develop strategic objectives throughout the incident • Maintain situational awareness and distribute situational information • Ensure appropriate documentation performed throughout the incident
ESF - 6 Mass Care and Human Services	<ul style="list-style-type: none"> • Provide for mass care of impacted citizens, including food, water and shelter • Assess and coordinate provision of temporary and long-term housing solutions • Assist in coordination of disaster assistance services and unmet needs

ESF - 7 Resource and Supply	<ul style="list-style-type: none"> • Locate, procure and coordinate resources necessary to support the disaster response • Identify and procure facilities needed to support disaster response and recovery • Coordinate utilization of disaster volunteers • Manage disaster donations
ESF - 8 Health and Medical	<ul style="list-style-type: none"> • Assess public health and medical needs of community • Provide for health surveillance of responders and citizens during response and recovery operations • Coordinate medical care and monitor utilization/availability of medical resources • Ensure safety and security of food and water supply • Provide for dissemination of medicines and vaccinations • Coordinate provision of behavioral and mental health services • Coordinate fatality management services
ESF - 9 Search, Rescue and Recovery	<ul style="list-style-type: none"> • Conduct search and rescue missions • Produce documentation of search efforts, coverage and results
ESF - 10 Hazardous Materials	<ul style="list-style-type: none"> • Coordinate responses to hazardous materials releases • Assess hazards to community including sampling, analysis and environmental monitoring • Coordinate cleanup and waste disposal operations • Provide recommendations for appropriate PPE
ESF - 11 Animal Care	<ul style="list-style-type: none"> • Provide surveillance of animal population • Provide technical expertise regarding disaster impacts on agricultural and companion animals, and provide recommendations on response
ESF - 12 Energy	<ul style="list-style-type: none"> • Assess damages to energy/utility system • Prioritize restoration of services to critical infrastructure • Coordinate restoration and repair of energy/utility system
ESF - 13 Law Enforcement	<ul style="list-style-type: none"> • Provide for security of incident scene • Coordinate investigation of disaster as required • Ensure delivery of law enforcement functions
ESF - 14 Business and Infrastructure	<ul style="list-style-type: none"> • Stabilization of key supply chains and community lifelines, among infrastructure owners and operators, businesses
ESF - 15 Emergency Public Information/External Affairs	<ul style="list-style-type: none"> • Alert, warn and notify citizens of impending disaster • Ensure delivery of continuous and accessible disaster information • Coordinate dissemination of incident information among responding and partner agencies/organizations and citizens

BASIC PLAN APPENDIX 2: EOC LEVELS AND EMERGENCY CLASSIFICATIONS

LEVEL OF EOC ACTIVATION

Determine level of Emergency Operation Center activation, if any, depending on severity of incident and if operations need to extend beyond an Incident or Unified Command (IC/UC). The level is activated by the EMD as discussed with the Executive Official.

Level 4	Daily operations/monitoring. EOC key personnel notified and on a ready to respond basis.
Level 3	Standby/enhanced monitoring. EOC key personnel notified and on a ready to respond basis.
Level 2	Partial activation. EOC staff is on site at the EOC.
Level 1	Full Activation. EOC staff and incident appropriate ESF agency partners are on site at the EOC.

INCIDENT LEVEL OF COMPLEXITY

Incidents may be categorized utilizing the following five levels of complexity to support decision-making regarding resource requirements.

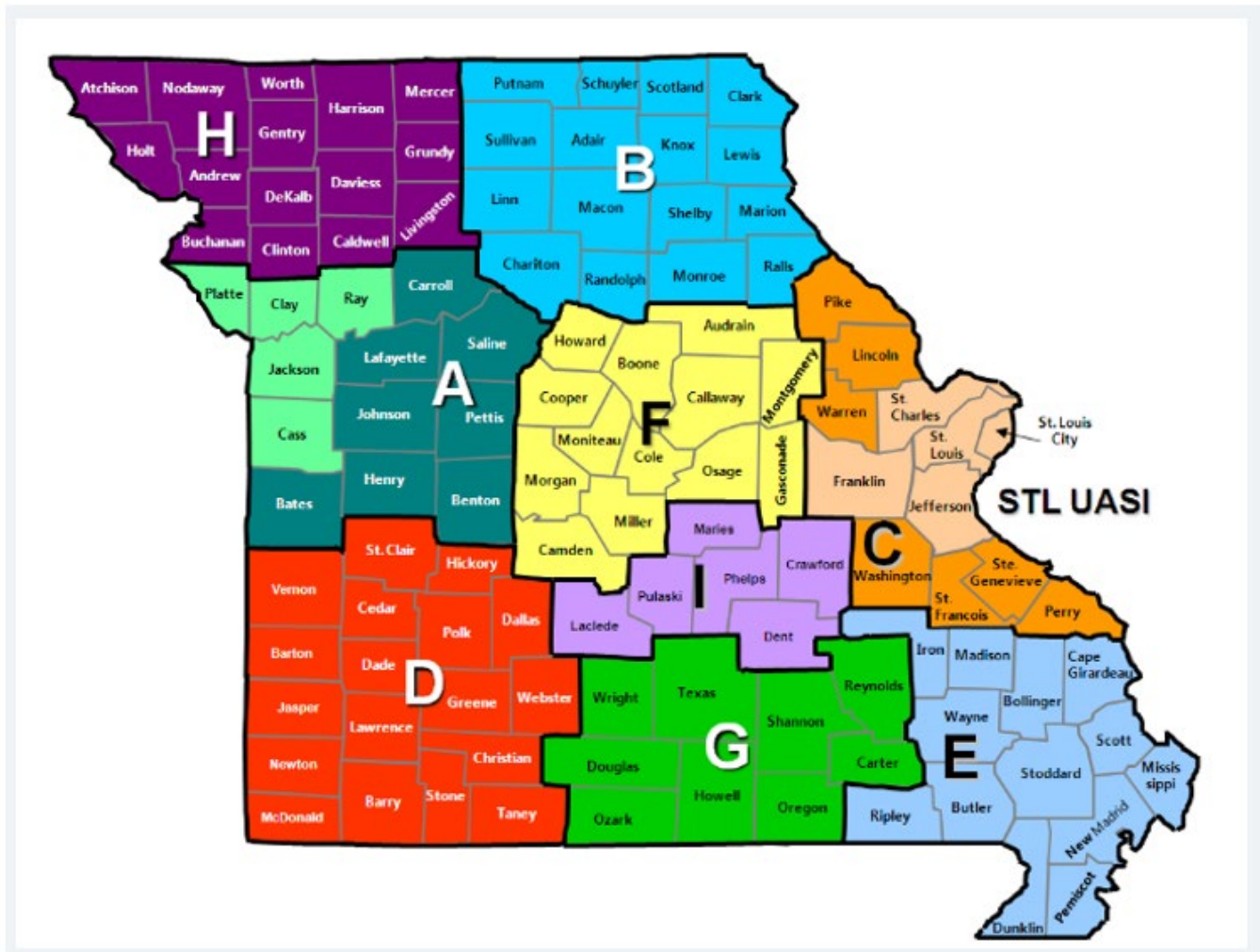
Type 5	<ul style="list-style-type: none"> • Can be handled with one or two single resources with up to six personnel. • Command and General Staff positions (other than IC) are not activated. • No written Incident Action Plan (IAP) is required. • Contained within the first operational period and often within an hour to a few hours after resources arrive on scene. • Examples include a vehicle fire, an injured person, or a police traffic stop.
Type 4	<ul style="list-style-type: none"> • Command staff and general staff functions are activated only if needed. • Several resources required to mitigate, including task forces or strike teams. • Usually limited to one operational period in the control phase. • No written Incident Action Plan (IAP) is required, but a documented operational briefing is completed for all incoming resources. • Agency administrator tasks includes operational plans with objectives and priorities.
Type 3	<ul style="list-style-type: none"> • When capabilities exceed initial attack, the appropriate ICS positions should be added to match the complexity of the incident. • Some or all Command and General Staff positions may be activated, as well as Division/Group Supervisor and/or Unit Leader level positions. • A Type 3 Incident Management Team (IMT) or incident command organization may manage initial actions until transition to a Type 1 or 2 IMT. • The incident may extend into multiple operational periods. • A written IAP may be required for each operational period.

Type 2	<ul style="list-style-type: none">• Extends beyond the capabilities for local control and is expected to go into multiple operational periods. May require regional and/or national resources to effectively manage operations, and fill command and general staff roles.• Most or all Command and General Staff positions are filled.• A written IAP is required for each operational period.• Many of the functional units are needed and staffed.• Operations personnel normally do not exceed 200 per operational period and total incident personnel do not exceed 500 (guidelines only).• The agency administrator is responsible for the incident complexity analysis, agency administrator briefings, and the written delegation of authority.
Type 1	<ul style="list-style-type: none">• The most complex, requiring national resources to safely and effectively manage.• All Command and General Staff positions are activated.• Operations personnel often exceed 500 per operational period and total personnel will usually exceed 1,000.• Branches need to be established.• Use of resource advisors at the incident base is recommended.• High impact on the local jurisdiction, requiring additional staff for office administrative and support functions.

<https://emilms.fema.gov/IS200b/ICS0106320text.htm> (Source: U.S. Fire Administration)

BASIC PLAN APPENDIX 3: MISSOURI REGIONALIZATION & REGION F COUNTIES

Missouri's regionalization plan establishes a governance structure and process to facilitate local community level engagement in homeland security related decisions including grant funding priorities and strategies. The regional concept is also used in coordinated planning and response by the jurisdictions located within each region. The regional boundaries are based on the established boundaries of the Missouri State Highway Patrol. Boone County is located in Region F along with the following counties: Audrain, Callaway, Camden, Cole, Cooper, Gasconade, Howard, Miller, Moniteau, Montgomery, Morgan and Osage.



BASIC PLAN APPENDIX 4: DISASTER DECLARATION FORM

****A Disaster Declaration must be issued prior to requesting state or federal assistance.***

EMERGENCY GOVERNMENT PROCLAMATIONS AND/OR RESOLUTIONS OF A STATE OF EMERGENCY IN BOONE COUNTY

WHEREAS, Boone County/xxx municipality, Missouri, has encountered _____ conditions, and a threat exists to the lives and property of the people of Boone County, Missouri, and;

WHEREAS, that areas within the boundaries of Boone County, Missouri, are immediately threatened with _____ and curtailing the protection of the lives and property contained in Boone County, Missouri, and an emergency exists:

NOW THEREFORE, we _____, City manager/administrator/mayor of the City of XXXX, Missouri, and _____, _____ the Board of County Commissioners, Boone County, Missouri, hereby declare that a state of emergency exists in Boone County, Missouri, and we hereby invoke and declare in full force and effect in Boone County, Missouri, all laws, statutes, of the State of Missouri, the City of XXX and Boone County, for the exercise of all necessary emergency authority for the protection of the lives and property of the people of Boone County, Missouri, and the restoration of local government with a minimum of interruption.

As pursuant with Chapter 44 of the Revised Missouri State Statutes, City Ordinances and County Court Orders, as pertinent to:

All public offices and employees of Boone County, Missouri, are hereby directed to exercise the utmost diligence in discharge of duties required of them for the duration of the emergency and in the execution of emergency laws, regulations, and directives state, and local.

All citizens are called upon and directed to comply with necessary emergency measures, to cooperate with public officials and the Boone County Emergency Management Agency's forces in executing emergency operational plans, and to obey and comply with the lawful directions of properly identified public offices.

In witness, we have hereunto set our hand at _____ hours, the ____ day of _____, 20__ A.D.

CITY OF XXXX

COUNTY OF BOONE

Mayor

Presiding Commissioner

Commissioner

Commissioner

Alternate Sample Local Disaster Declaration

The following is a sample of the language that should be retyped onto the jurisdiction's official letterhead before submitting. Language should be changed to accurately describe current incident.

WHEREAS, County (or affected city/town) has suffered from a _____ (i.e., tornado, flood, severe storm, etc.) that occurred on _____ (include date(s) and time).

WHEREAS, extensive damage was caused to public and private property, disruption of utility service, and endangerment of health and safety of the residents of County (or city/town) within the disaster area.

WHEREAS, all locally available public and private resources available to mitigate and alleviate the effects of this disaster have been insufficient to meet the needs of the situation,

Therefore, the Chair of the _____ County Commissioners (or the Mayor of _____) has declared a state of emergency on behalf of County (or city/town), and will execute for and on behalf of County (or city/town), the expenditure of emergency funds from all available sources, the invoking of mutual aid agreements, and the requesting assistance from the State.

Chair, County Commissioners (or Mayor of affected jurisdiction or appointed authorized representative)

WITNESS my hand and the seal of my office

This day of xxxx, 20xx.

County (or City/Town) Clerk

Note: Do not include specific dollar amounts in the Resolution. This Resolution does not guarantee that the jurisdiction or any potential applicants will qualify to receive state or federal funding assistance.

BASIC PLAN APPENDIX 5: ACRONYMS AND DEFINITIONS

AAR	After Action Report
ADA	Americans with Disabilities Act of 1990
AHA	American Heart Association
AHJ	Authority Having Jurisdiction
ALS	Advanced Life Support
AOBD	Air Operations Branch Director
APD	Ashland Police Department
ARES	Amateur Radio Emergency Services
BCARES	Boone County Amateur Radio Emergency Services
BCFPD	Boone County Fire Protection District
BCJC	Boone County Joint Communications
BCOEM	Boone County Office of Emergency Management
BCRB	Boone County Road and Bridge
BCRSD	Boone County Regional Sewer District
BCSD	Boone County Sheriff's Department
BEC	Boone Electric Cooperative
BHC	Boone Hospital Center
BHC EMS	Boone Hospital Center Emergency Medical Services
CAP	Civil Air Patrol
CBCHMEPC	Columbia/Boone County Health and Medical Emergency Planning Committee
CBCPHHS	Columbia/Boone County Public Health and Human Services
CBRNE	Chemical, Biological, Radiological, Nuclear or Explosive
CDC	Centers for Disease Control and Prevention
CERT	Community Emergency Response Team
CFD	Columbia Fire Department
CFR	Code of Federal Regulations
CHEMTREC	Chemical Transportation Emergency Center
CISD	Critical Incident Stress Debriefing
CMHS	Central Missouri Humane Society
COML	Communications Unit Leader
COMMS	Communications
COMT	Incident Communications Technician
CONOPS	Concept of Operations
COOP	Continuity of Operations Plan
COP	Common Operating Picture
COU	Columbia Regional Airport
COU APS	Columbia Regional Airport Public Safety
CP	Command Post
CPD	Columbia Police Department
DART	Disaster Assistance Response Team
DAT	Damage Assessment Team
DECON	Decontamination Area, Decontamination Process
DFO	Disaster Field Office: for FEMA staff and operations during a disaster

DHSS	MO Department of Health and Senior Services
DHS	Department of Homeland Security
DIVS	Division/Group Supervisor
DMAT	Disaster Medical Assistance Teams
DMOB	Demobilization Unit Leader
DMORT	Disaster Mortuary Team
DMS	Debris Management Site
DNR	Department of Natural Resources
DOCL	Documentation Unit Leader
DOD	Department of Defense
DOE	Department of Energy
DPM	Debris Project Manager
DPS	Department of Public Safety
DRC	Disaster Recovery Center
EAP	Emergency Assistance Program
EAS	Emergency Alert System
ECC	Emergency Communications Center
EF	Enhanced Fujita – tornado intensity rating system based on damage
EHS	Environmental Health & Safety/Extremely Hazardous Substance
EMA	Emergency Management Agency
EMAC	Emergency Management Assistance Compact
EMD	Emergency Management Director/Emergency Medical Dispatch
EMI	Emergency Management Institute
EMS	Emergency Medical Service
EMT-B	Emergency Medical Technician - Basic
EMT-P	Emergency Medical Technician – Paramedic
EOC	Emergency Operations Center
EOP	Emergency Operations Plan
EPA	Environmental Protection Agency
EPCRA	Emergency Planning and Community Right-to-Know Act
ER	Emergency Relief/Emergency Room
ESF	Emergency Support Function
ESF 1	Transportation
ESF 2	Communications
ESF 3	Public Works and Engineering
ESF 4	Firefighting
ESF 5	Emergency Management
ESF 6	Mass Care, Housing and Human Services
ESF 7	Resource Support
ESF 8	Health and Medical
ESF 9	Search and Rescue
ESF 10	Hazardous Materials
ESF 11	Animals in Disaster/Agriculture
ESF 12	Energy

ESF 13	Public Safety and Security
ESF 14	Long-term Community Recovery and Mitigation
ESF 15	External Affairs
E-Waste	Electronic Waste
FAA	Federal Aviation Administration
FBI	Federal Bureau of Investigations
FCC	Federal Communications Commission
FCO	Federal Coordinating Officer
FDA	Food and Drug Administration
FEMA	Federal Emergency Management Agency
FNSS	Functional Needs Support Services
FOG	Field Operation Guidelines
FSC	Finance Section Chief
GETS	Government Emergency Telecommunication Service
GIS	Geographic Information Systems
GPS	Global Positioning System
HAZMAT	Hazardous Material
HCC	Health Care Coalition
HHS	Health and Human Services
HHW	Household and Hazardous Waste
HMEP	Hazardous Materials Emergency Plan
HPD	Hallsville Police Department
HSPD-5	Homeland Security Presidential Directive-5
HSPD-8	Homeland Security Presidential Directive-8
HSRT/HSRRS	Homeland Security Response Team/Regional Response System
HVA	Hazard Vulnerability Analysis
IA	Individual Assistance
IAEM	International Association of Emergency Managers
IAP	Incident Action Plan
IC	Incident Commander:
ICP	Incident Command Post
ICS / IMS	Incident Command System/Incident Management System
IMAT	Incident Management Assistance Team
IMT	Incident Management Team
IST	Incident Support Team
IT	Information Technology
JFO	Joint Field Office
JIC	Joint Information Center
JIS	Joint Information System
JOC	Joint Operations Center
LEPC	Local Emergency Planning Committee
LNO	Liaison Officer
LOGS	Logistics
LSC	Logistics Section Chief
MAA	Mutual Aid Agreement

MACC	Multi-Agency Coordination Center
MDA	Missouri Department of Agriculture
MDC	Missouri Department of Conservation
MDOC	Missouri Department of Corrections
MDOT	Missouri Department of Transportation
MIMS	Missouri Incident Management System
MMRPC/Mid-MO RPC	Mid-Missouri Regional Planning Commission
MODNR	Missouri Department of Natural Resources
MODOT	Missouri Department of Transportation
MO HSART	Missouri Helicopter Search and Rescue Team
MONG	Missouri National Guard
MOSWIN	Missouri Statewide Interoperability Network
MO-TF1	Missouri Task Force 1 Urban Search & Rescue
MOU	Memorandum of Understanding
MRC	Medical Reserve Corp
MRE	Meal Ready to Eat
MSDS	Material Safety Data Sheet
MSHP	Missouri State Highway Patrol
MU	University of Missouri
MUHC	University of Missouri Health Care
MUHC EMS	University of Missouri Health Care Emergency Medical Services
MULES	Missouri Uniform Law Enforcement System
MUPD	University of Missouri Police Department
MURR	University of Missouri Research Reactor
NACCHO	National Association of County and City Health Officials
NASAAEP	National Alliance of State Animal and Agricultural Emergency Programs
NAWAS	National Alert Warning System
NDMS	National Disaster Medical System
NEMA	National Emergency Management Association
NFIP	National Flood Insurance Program
NFPA	National Fire Protection Association
NGO	Non-Governmental Organization
NIC	NIMS National Integration Center
NIMS	National Incident Management System
NMSZ	New Madrid Seismic Zone
NOAA	National Oceanic & Atmospheric Administration
NRF	National Response Framework
NWS	National Weather Service
OEM	Office of Emergency Management
OHS	Office of Homeland Security
OPS	Operations
OSC	Operations Section Chief
OSHA	Occupational Safety & Health Administration
PA	Public Assistance

PETS Act	Pets Evacuation and Transportation Standards Act of 2006
PIO	Public Information Officer
POC	Point of Contact
POD	Point of Distribution/Point of Dispensing
PPE	Personal Protective Equipment
PSAP	Public Safety Answering Point
PSC	Planning Section Chief
RACES	Radio Amateur Civil Emergency Services
RHSOC	Regional Homeland Security Oversight Committee
RRCC	Regional Response Coordination Center
RSMO	Revised Statutes of Missouri
RUL	Resource Unit Leader
SAR/ S&R	Search and Rescue
SAVE	Missouri Structural Assessment and Visual Evaluation Coalition
SBA	Small Business Administration
SBFPD	Southern Boone Fire Protection District
SEMA	State Emergency Management Agency
SITL	Situation Unit Leader
SITREP	Situation Report
SNS	Strategic National Stockpile
SOF	Safety Officer
SOG	Standard Operating Guidelines
SOP	Standard Operating Procedure
SPD	Sturgeon Police Department
TDMS	Temporary Debris Management Site
THIRA	Threat and Hazard Identification and Risk Assessment
TSA	Transportation Security Administration
UC	Unified Command
USACE	United States Army Corps of Engineers
USAR/US&R	Urban Search and Rescue
USCG	United States Coast Guard
USDA	United States Department of Agriculture
USGS	United States Geological Survey
USNG	United States National Grid
US&R	Urban Search and Rescue
VMAT	Veterinary Medical Assistance Team
VRC	Veterinary Reserve Corp
WMD	Weapons of Mass Destruction

ESF-1: TRANSPORTATION

ESF-1 describes coordination of transportation assets and capabilities in Boone County during disasters, as well as addressing damage assessment and restoration of transportation infrastructure.

Agencies with identified roles and responsibilities in this annex include, but are not limited to:

Boone County Road and Bridge (BCRB)
Municipalities' public works and street departments
Boone County Information Technology (IT/GIS)
Boone County Office of Emergency Management (BCOEM)
Boone County Sheriff's Office (BCSO)
Centralia Special Road District
Columbia Public Works Street Division and Traffic Division
Civil Air Patrol (CAP)
Columbia Parks & Recreation
Columbia Regional Airport (COU)
GoCOMO
Municipal police departments
MO Department of Transportation (MODOT)
MO National Guard (MONG)
MO State Highway Patrol (MSHP)
OATS
School districts
Student Transportation of America (STA)

SITUATION AND ASSUMPTIONS

SITUATION

In the event of a major emergency or disaster in Boone County, there may be disruption to normal transportation systems. Area and regional transportation infrastructure - such as roads, bridges, and railroads - may sustain damage which will impact the means and accessibility for evacuation, and delivery of relief services and supplies. Equipment may be damaged, and trained operators/drivers may be disaster victims, resulting in shortages in resources.

There may be a need to augment transportation assets to bring emergency equipment and supplies into the disaster area(s), to enable mass evacuation, and to move disaster victims to mass care shelters. A significant disaster will also require conveyance of people with functional needs and other transportation challenges.

Detailed information on resources and points of contact can be found in the EOC Contact and Resource Guide maintained by OEM.

ASSUMPTIONS

Most people will not require supplemental transportation to evacuate an effected area.

The requirement for transportation capacity during the immediate lifesaving response phase will exceed the availability of jurisdictionally controlled or readily obtainable assets.

Disaster responses that require transportation capacity will be difficult to coordinate effectively during the immediate post-disaster period.

The area/regional transportation infrastructure will sustain damage. The damage will influence the means and accessibility of transportation for supplies and people.

Expedited clearing of access routes will permit flow of emergency relief, although localized distribution patterns will be disrupted for a significant period.

Additional resources will be available through mutual aid, state and federal assistance.

CONCEPT OF OPERATIONS

GENERAL

In accordance with federal mandates, management of local disasters and emergencies will be initiated and conducted using the concepts and principles of the National Incident Management System (NIMS). On-scene management and coordination of responses will utilize the Incident Command System (ICS).

The transportation activities described in this annex are an extension of normal day-to-day activities and deal only with those situations that could completely exhaust all available resources.

ESF-1 will be coordinated by representation from one or all transportation agencies involved in the incident. Entities with ESF-1 responsibilities will provide liaisons to the EOC, if activated, to form an ESF-1 coordination group. Liaisons may locate to, and operate from, the EOC, or may retain a virtual presence with the EOC. The ESF-1 liaison(s) will coordinate transportation resource management, maintain situational awareness, and provide information to the EOC regarding transportation response and recovery efforts.

ESF-1 will prioritize, allocate and task assets in coordination with the other ESFs to support the disaster response and recovery efforts. Priorities will continually be reassessed to develop strategies and address the most critical needs.

Local resources will be used first before outside assistance is requested from mutual aid, the state and/or federal government. The first resources to be identified will be those that are under the control of, or are readily available to, the County and municipal governments.

The EOC will not interfere with the internal operations of the involved agencies but will monitor the situation and provide support as requested.

Mutual aid resources will remain under the authority of their home agencies but will be mission assigned by ESF-1 in the EOC and utilized on site by the Incident Commander.

ESF-6 and ESF-8 representatives will work with ESF-1 to coordinate ground transportation for evacuation and transport to mass care shelters; consideration will be given to movement of functional needs populations.

The EOC will compile information regarding roadways that are compromised and need emergency clearance and or/repair.

ESF-7 will coordinate with ESF-1 for transport of resources and materials to pre-designated locations for distribution to and throughout the affected area(s).

TRANSPORTATION PRIORITIES

When carrying out emergency transportation activities, immediate needs must be considered first, followed by continuing requirements. Immediate transportation needs normally involve road clearing to provide access and egress for emergency services, and for evacuation of people from risk areas.

Continuing transportation needs typically involve the movement of relief supplies, equipment and emergency workers during response and recovery operations. Priorities will continually be reassessed to address the most critical transportation needs and develop strategies.

PASSENGER AND CARGO TRANSPORTATION RESOURCES

When possible, emergency passenger transportation requirements will be satisfied with the following resources:

- Voluntary use of personal vehicles
- City/county-owned vehicles
- Municipal transit system buses
- School buses
- Donated transportation equipment or services
- Leased or contracted equipment
- Transportation assets provided by other jurisdictions through mutual aid agreements
- State-owned or contracted transportation assets

SCHOOLS AND DAY CARE CENTERS

If evacuation of public schools is required, students will normally be transported on school buses. Private schools and day care centers, including adult day care facilities, may not have significant transportation resources, and may require transportation assistance during emergencies.

HOSPITALS, NURSING HOMES, AND CORRECTIONAL FACILITIES

Movement of medical patients and prisoners requires specialized transportation and appropriate medical or security support. The facility operator is responsible for arranging for suitable transportation. For short-notice or no-notice emergency situations, facilities may be unable to make the required arrangements for transportation and may need assistance.

INDIVIDUALS WITH FUNCTIONAL AND ACCESS NEEDS

Individuals who cannot drive, who do not have a vehicle, and/or individuals with functional and access needs may require accessible transportation assistance for successful evacuation. Access to transportation assistance needs to be available to those who rely heavily on public transit, including but not limited to low-income communities. This support may include accessible vehicles (e.g., lift-equipped or vehicles suitable for transporting individuals who use oxygen) or information in alternate formats or other languages about how and where to access mass transportation during an evacuation.

REQUESTING TRANSPORTATION SUPPORT

Requests for transportation support may be generated by an IC or by departments and agencies that require additional transportation support to carry out emergency responsibilities. Prioritized emergency transportation requests will be processed utilizing the resource request process outlined in the Basic Plan, ESF-7 and the EOC Standard Operating Guide (SOG) document. The ESF-1 representative shall identify appropriate transportation resources to fill such requests, coordinating as necessary with the requester and transportation providers.

EXTERNAL SUPPORT

If transportation requirements cannot be satisfied with the resources available locally or through agreements and contracts, assistance may be requested from the State. Requests for State resources to support transportation will be processed through the EOC to SEMA.

ASSIGNMENT OF RESPONSIBILITIES

The agencies with responsibility to this plan are tasked with the following actions:

- Prioritization, allocation and/or tasking of transportation assets in support of disaster relief and recovery efforts.
- Providing liaison(s) and point of contact for ESF-1 at the EOC.
- Maintaining records of costs for supplies, resources and man-hours used in response to the disaster event.
- Maintaining SOGs that address transportation responsibilities and needs.
- Maintaining lists of potentially available transportation resources.
- Maintaining current mutual aid agreements, memoranda of understanding and contractual resources to support disaster response and recovery transportation needs.

BOONE COUNTY ROAD & BRIDGE

BCRB maintains and improves the county's 700-plus mile road network including emergency road clearing and repairs in response to emergencies and disasters. BCRB deals strictly with county roads, right of way, bridges and signs.

MUNICIPAL PUBLIC WORKS AND STREET DEPARTMENTS

- Columbia Public Works Street Division and Traffic Division are responsible for street and sidewalk maintenance and repair as well as storm response.
- The City of Ashland Public Works Department is responsible for maintaining more than 50 miles of roadway and 20 miles of sidewalks. The department is responsible for snow removal, road repairs, and working with MODOT and Boone County to ensure the safety of Ashland roads.
- Centralia Special Road District
- Hallsville Public Works
- Sturgeon Maintenance Department

BOONE COUNTY OEM

OEM will activate the EOC if indicated by the extent of the incident, and will coordinate with the participating agencies listed in this annex to identify available resources to ensure all incident requirements are met. OEM will facilitate requests for mutual aid, and for state and federal resources, and will make provisions for logistical support for incident assets.

OEM will coordinate public transportation support for mass evacuations and coordinate with law enforcement and transportation providers to establish evacuation routes, pickup points and staging areas.

OEM will also coordinate with institutional facilities to determine needs and requirements for accessible transportation support during disasters.

OEM will collect and disseminate information about, and in support of, the incident; OEM will gather situational information regarding hazards, resources, status of infrastructure, evacuation routes, etc., and will coordinate with the PIO(s)/JIC to disseminate pertinent information to the public.

The EOC will be the focal point for triage and prioritization decisions regarding the restoration of critical services and infrastructure, and providing response and recovery support to residents and businesses.

OEM will also be responsible for gathering cost information from resource providers to prepare for potential declaration of disaster.

BOONE COUNTY IT/GIS

IT/GIS will provide mapping and technological capabilities in support of the EOC and the incident in general.

RESOURCE PROVIDERS

Will provide current information on available transportation equipment to the ESF-1 liaison for use in updating the transportation resource list.

Will maintain records of the costs, resources and man-hours of response.

Will coordinate with other emergency services to identify and prioritize requirements for transportation of supplies, equipment, materials and passengers.

Will coordinate with ESF-6 Mass Care for passenger and cargo transportation to support shelter and mass care operations.

SCHOOL TRANSPORTATION SERVICES/ STUDENT TRANSPORTATION OF AMERICA

Provide large capacity vehicles and drivers for use in evacuations and group movements.

Provide an inventory of buses including those that are wheelchair accessible, bus availability during school and non-school hours, and total number of available buses.

Provide oversight and dispatch to vehicles.

LAW ENFORCEMENT AGENCIES

Management of traffic flow.

Determine evacuation routes and provide traffic control for large-scale evacuations.

Determine transportation pickup points and staging areas

COLUMBIA REGIONAL AIRPORT

Report status of airport capacity and capabilities to the EOC.

Approve prior permission requests (PPR) if weights for flights supporting disaster relief exceed runway limits.

STATE SUPPORT AGENCIES

MO Dept. of Transportation

- Transport supplies, clear and/or repair transportation routes
- Provide signage and messaging.
- Conduct transportation infrastructure damage assessments.
- Provide fuel for emergency response and transportation.

MO State Highway Patrol

- Provide ground and air transport. Provide traffic control.

Missouri National Guard

- Provide ground and air transport.
- Provide equipment and personnel to fulfill requirements for emergency transportation of cargo and passengers, upon request of the IC/EOC to the extent possible.

Civil Air Patrol

Light air transport capability for human blood, tissue or organs, equipment, passengers, or search dog teams to austere or remote sites (subject to FAA rules).

DIRECTION AND CONTROL

In accordance with federal mandates, Boone County government, response agencies, and the municipalities within the county have adopted the National Incident Management System (NIMS) and the Incident Command System (ICS) as the standard for incident response and management.

Transportation activities and missions will be coordinated by the ESF-1 representative or coordination group, with the supporting and assisting agencies retaining administrative direction and control over their resources. Coordination will be established with the EOC (if activated) and/or IC to prioritize and develop strategies and missions for response and recovery. Priorities will continually be reassessed to develop strategies and address the most critical needs.

Mutual aid resources will be managed by the EOC and local incident commanders, but will retain the administrative oversight of their home agencies.

CONTINUITY AND SUCCESSION

Lines of succession and continuity of operations plans are maintained at the agency or department level.

Records vital to the continuity of the ESF are duplicated and stored at alternate locations.

ADMINISTRATION AND LOGISTICS

Specific operating procedures and protocols are maintained by the participating organizations.

Resources and points of contact are maintained in the EOP Contact and Resource Guide

Mutual aid agreements, memoranda of understanding and contractual resource lists regarding transportation operations are maintained within individual agencies.

Procedures for use of forms, compiling information, and providing data are located in the EOC SOG.

The EOC will provide support and resources at the request of the incident commander.

Supply requisitions/resource requests will be made through normal channels to the extent possible, but will be made through the EOC when necessary and coordinated by ESF-7. Unusual expenditures will be directed to the Emergency Management Director and coordinated with the jurisdictional purchasing agents as per documented purchasing procedures

Each agency will track costs and personnel hours associated with the disaster to provide to OEM for disaster declaration activities. Accurate records of hours worked, and supplies used must be reported to the EOC for use in determining the total cost of the disaster. All actions taken must be recorded as they are essential for future planning and mitigation, response and recovery, and training and exercise.

Communications for this function will be provided as outlined in the ESF-2 annex of this plan.

APPENDICES

Appendix 1: MODOT Maps

Appendix 2: Columbia Regional Airport Maps

Attachment A - Airport Buildings

Attachment B - Airport Grounds Features

Attachment C - Airport Diagram

Appendix 3: Railroads

Attachment A - Boone County Railroad Map

Attachment B - Railroad Relational Maps

Appendix 4: Potential Transportation Resources

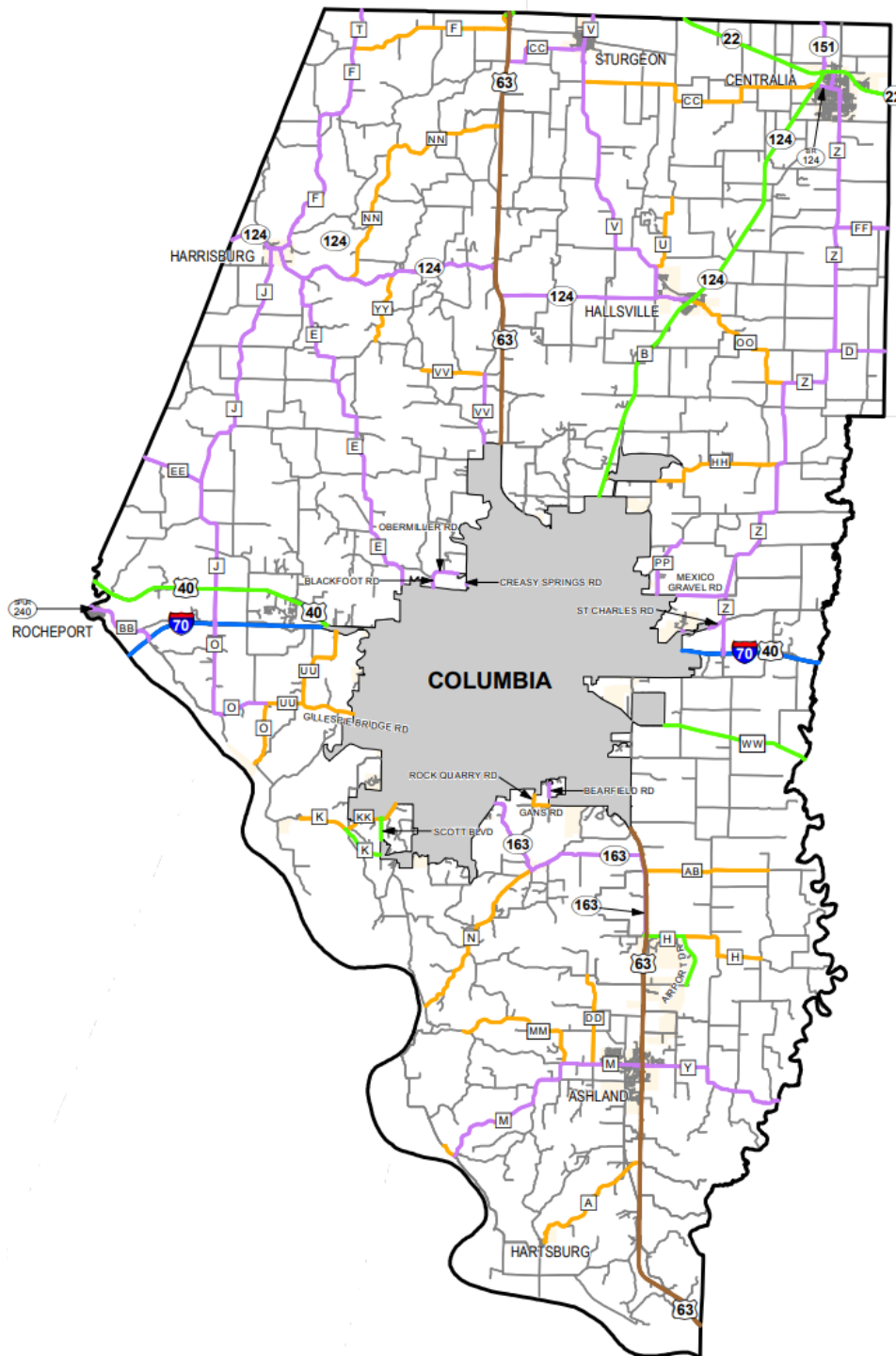
Appendix 5: Evacuation

Attachment A - Boone County Evacuation Map

Attachment B - Potential Staging Areas

Attachment C - Record of Evacuation

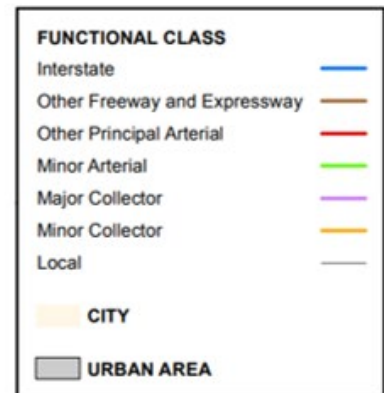
ESF-1: APPENDIX 1 – MODOT MAPS



Rural Functional Classification

BOONE COUNTY

Missouri



Federal-Aid highways exclude local roads and rural minor collectors.



Transportation Planning

105 W. Capitol Ave.
Jefferson City, MO 65102
Phone (573) 526-6478
Fax (573) 526-8052

Approved May 15, 2020

ESF-1 APPENDIX 2: COLUMBIA REGIONAL AIRPORT

ESF-1 APPENDIX 2: ATTACHMENT A – AIRPORT BUILDINGS



ESF-1 APPENDIX 2: ATTACHMENT B – AIRPORT GROUNDS FEATURES



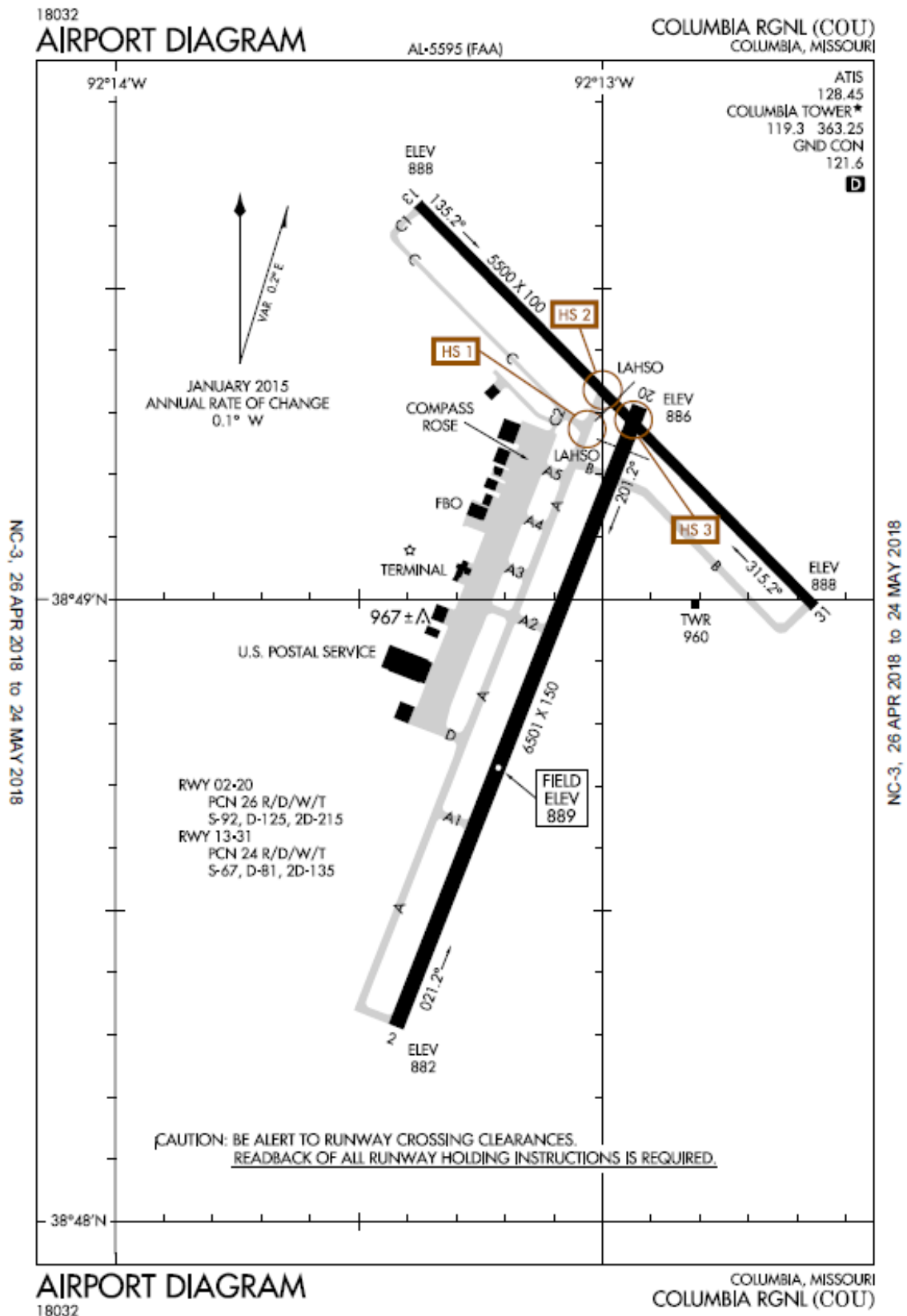
6500x150 primary runway with weight capacities as follows:

Single 71,000

Double wheel 86,000

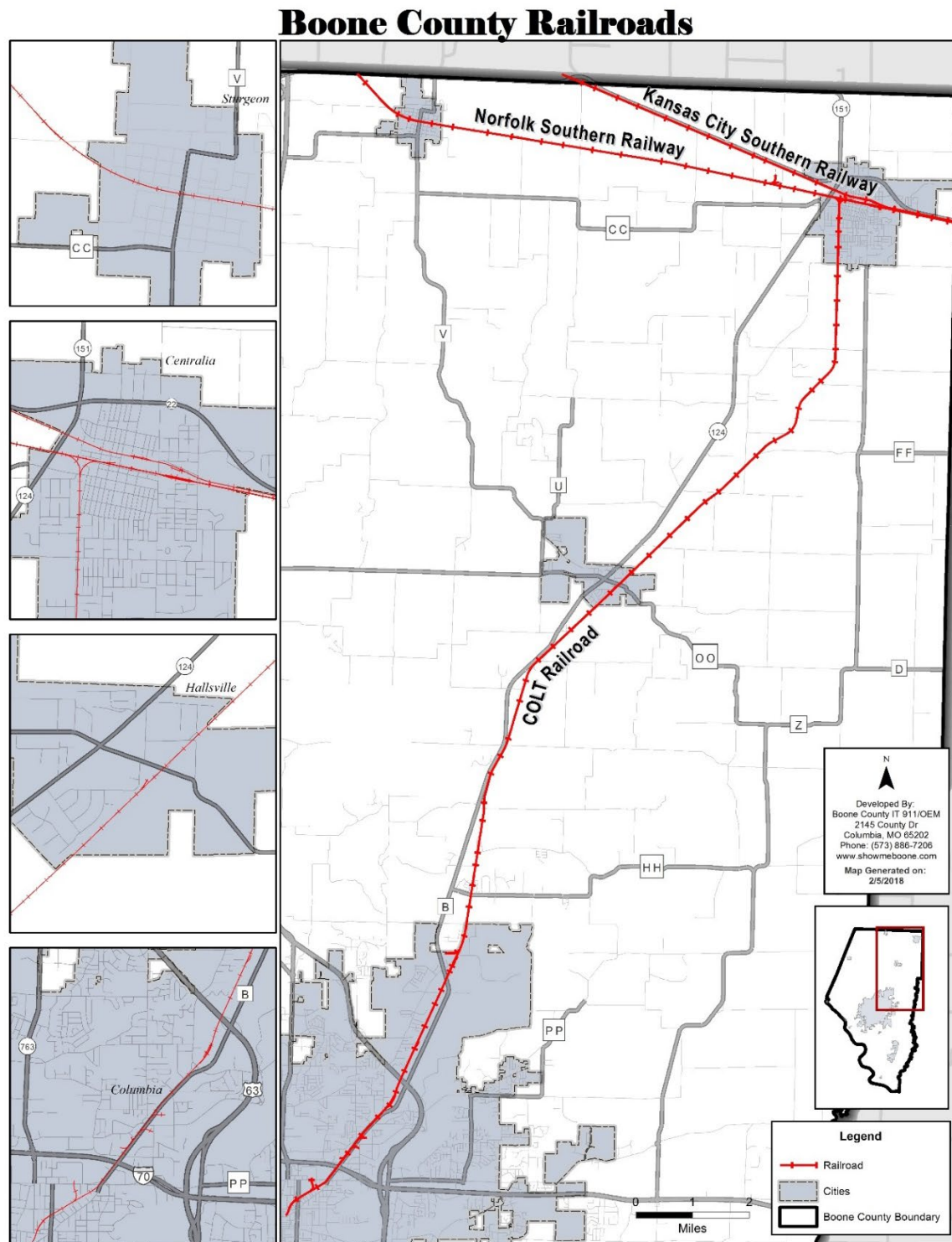
Double Tandem 144,000

ESF-1 APPENDIX 2: ATTACHMENT C – AIRPORT DIAGRAM

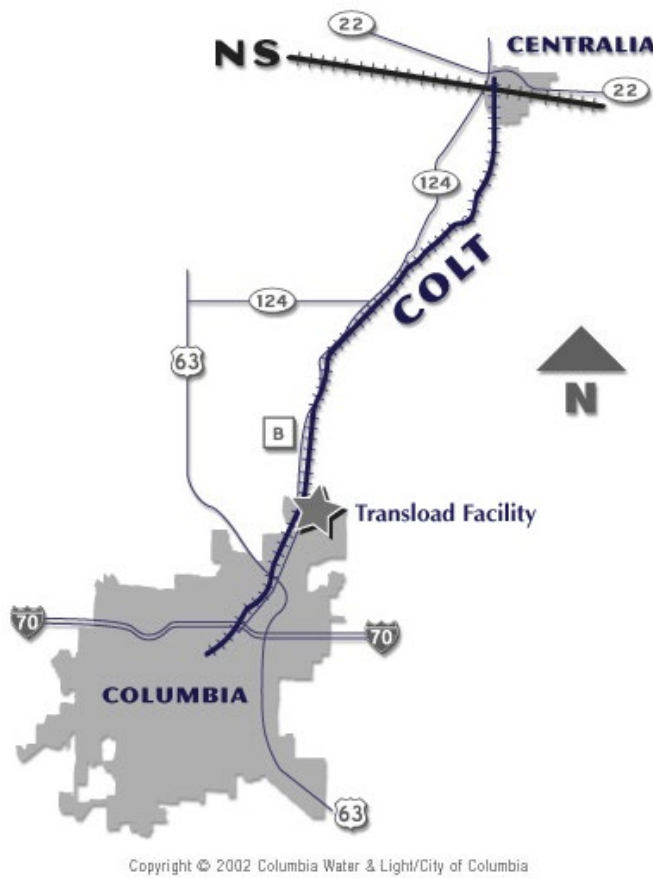


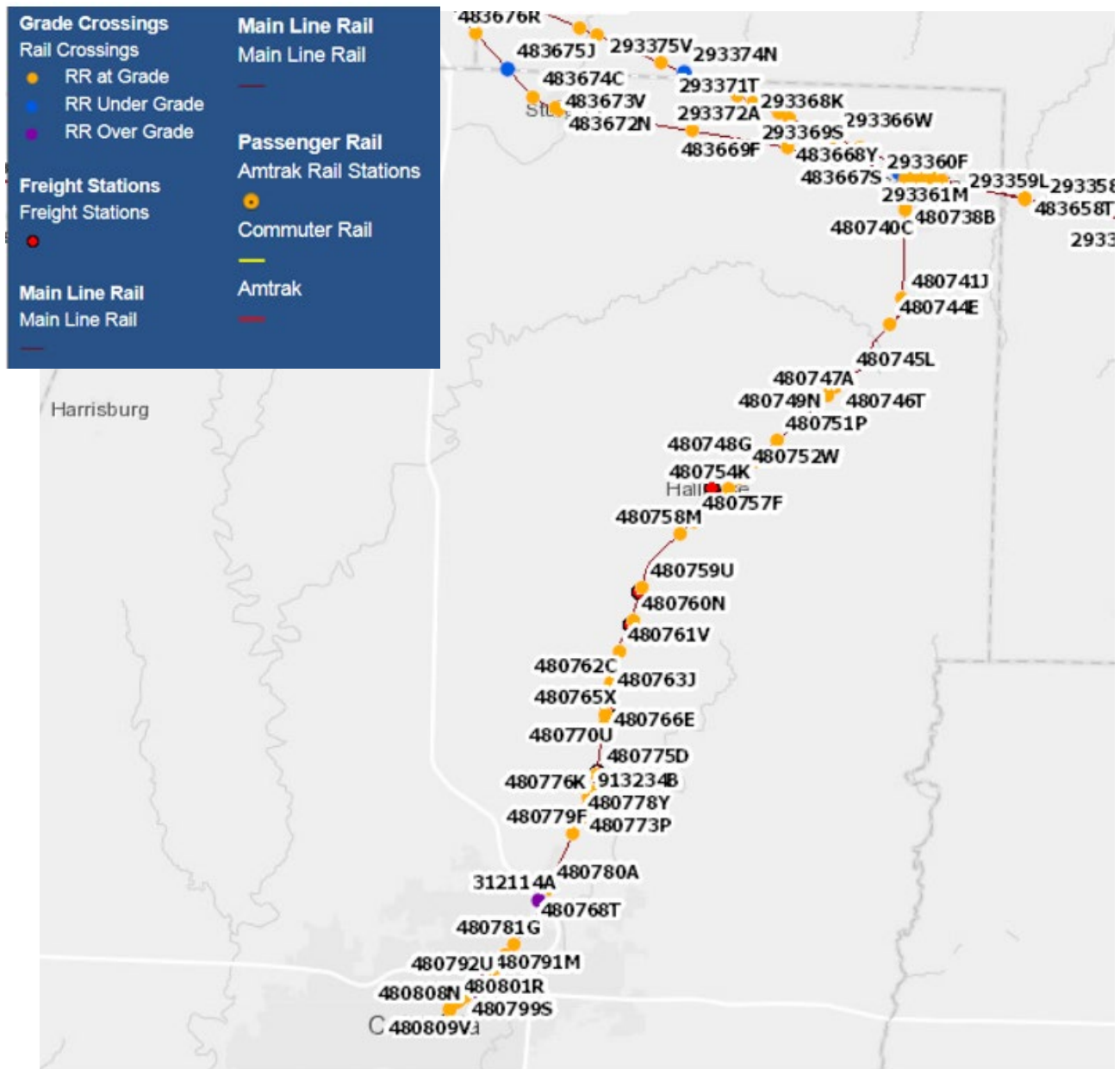
ESF-1 APPENDIX 3: RAILROADS

ESF-1 APPENDIX 3: ATTACHMENT A - BOONE COUNTY RAILROAD MAP



ESF-1 APPENDIX 2: ATTACHMENT B - RAILROAD RELATIONAL MAPS





Source: <https://fragis.fra.dot.gov/GISFRASafety/>

ESF-1 APPENDIX 4: POTENTIAL TRANSPORTATION CAPABILITIES

GoCOMO – city buses

Student Transportation of America – standard and accessible school buses

Municipal school district transportation – standard and accessible school buses

Municipalities resources:

Ashland

Centralia

Columbia

Hallsville

Harrisburg

Hartsburg

Sturgeon

OATS

Mo-X

Medical Transport Services

White Knight Coaches – passenger buses

Taxi services

Greyhound

University of Missouri resources

Norfolk Southern Railroad

Colt Railroad

Kansas City Southern Railroad

ESF-1 APPENDIX 5: EVACUATION

(Note: Specific evacuation routes are not predetermined for Boone County. Determination of specific evacuation routes will be made at the time of an actual event and need, as it is unknown beforehand what evacuation routes will be available or effected by an event. Availability of routes will be published accordingly and made available to the public as indicated in this ESF.

Boone County and the municipalities within it are vulnerable to hazards which could require evacuations. These may include small, localized situations, as well as large-scale evacuation operations, and may be in response to foreseen or no-warning incidents.

Sites for receiving evacuees at the time of an incident will be determined based on prior planning with Red Cross and potential shelter locations.

Most of the persons in the affected area will receive and follow the evacuation instructions. In almost every emergency situation requiring an evacuation, a number of people will evacuate on their own volition. However, a certain portion of the population will not get the information, will not understand it, or purposely not follow directions. Hospitals, nursing homes, schools, and other facilities will require special planning considerations if an evacuation is ordered.

Panic by evacuees can be reduced by the government providing adequate information and instructions.

Evacuation will be primarily by family groups using privately-owned vehicles, while persons without automobiles will need to be provided transportation.

Short and long term planning should identify potential safe, secure and reliable evacuation routes.

Response and recovery efforts will more than likely include questioning of evacuees following a terrorist event. Evacuation facilities and routes will likely incur additional burden because of this.

The ultimate responsibility for ordering an evacuation, except for hazardous materials incidents, rests with local government and is implemented by the chief elected official or a designated successor. The chief executive officer of the jurisdiction (i.e., Presiding Commissioner and/or Mayor, Manager, etc.) is ultimately responsible for ordering an evacuation.

The duration of the evacuation will be determined by the chief elected officials present based on technical information furnished by federal, state, and local agencies.

Designating primary and alternate evacuation routes and indicating these routes on a map.

Estimating traffic capacities for the evacuation routes and the amount of time for completing the evacuation.

Estimating the number of people requiring transportation from the evacuation area and identifying the means to transport them.

Identifying potential problem areas along the evacuation routes (i.e., narrow bridges, weight restrictions, etc.)

The Public Information Officer is to coordinate with the evacuation coordination group and release evacuation information to the public.

ESF-1 and ESF-7 will coordinate to obtain transportation to be used in the evacuation.

ESF-3 will be assisting in the traffic movement by constructing barricades and removing debris from the roadways.

ESF-13 will coordinate security in the evacuated area, as well as in the reception area.

ESF-6 will coordinate sheltering if the evacuation is for an extended time period.

Transportation is to be provided for patients/residents of organizations requiring care of functional needs individuals (i.e., hospitals, nursing homes, schools, etc.). Transportation will be provided as possible for other residents with mobility needs who do not reside in the above facilities.

During the evacuation, staging areas and pickup points are to be identified to provide transportation for those persons without any means of transportation. Refer to Attachment 2.

If necessary, relocate personnel, supplies, and equipment to a reception area. Make provisions for transporting essential personnel to and from the risk area.

Rest areas should be established along the movement routes so that evacuees can obtain fuel, water, medical aid, vehicle maintenance, information, and comfort facilities.

Private organizations such as service stations, fuel distributors, and bus companies will facilitate evacuation operations.

Reentry into the evacuated area is to begin after the area has been declared safe by local, state, and/or federal officials.

Each jurisdiction is responsible for the procurement of its own essential supplies needed for evacuation operations, through normal procurement channels. ESF7 may support

All county-owned and/or city-owned transportation is to be utilized to evacuate people and relocate essential resources. Formal arrangements for outside resources should be made (i.e., church buses, school buses).

To provide for the orderly and coordinated evacuation of those people who are exposed to hazardous materials accidents and those people who may be endangered by fixed site hazardous materials accidents.

One out of ten motor vehicles is engaged in the transport of hazardous materials.

Hazardous materials incidents may occur without any other emergencies being involved, such as a structural failure in a container or a leaking valve.

Such incidents could pose a significant threat to the health and safety of response personnel, as well as others in the immediate area.

EVACUATION RESPONSE PROCEDURES

If evacuation is required and an order is made to evacuate:

Local authorities will take immediate steps to warn and evacuate citizens, alleviate suffering, protect life and property, and commit available resources before requesting assistance from the next higher level of government.

Designate the area to be evacuated.

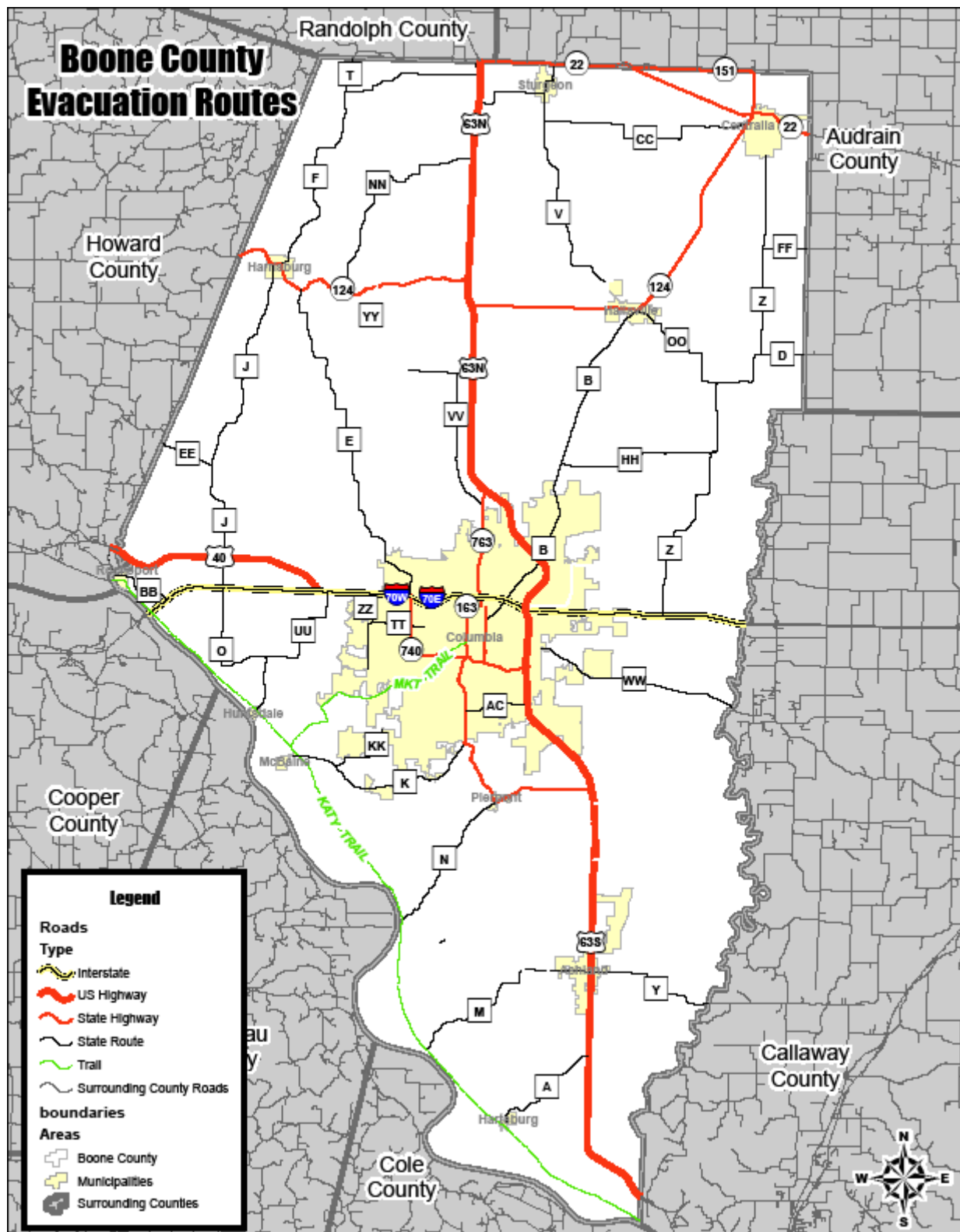
Notify affected persons. All persons within the affected area must be contacted. If early warning is not applicable or effective, all remaining persons within the designated area must be contacted. This may be accomplished on a door-to-door basis, loudspeakers on patrol cars, or government-manned telephones. Records should be kept of location of visits, times and dates, and results of attempted visits. (See Attachment 3.)

Establish a perimeter security to limit or prohibit entry into the affected area.

Establish shelter/relief services for victims, if necessary. Location of shelter areas and assistance in the form of food and clothing could be supplied by the local Red Cross, Salvation Army and other relief agencies. Many evacuees will stay with friends or neighbors for short periods of time; if duration is longer, the affected community would relocate and make ready areas for long-term occupancy.

Return of affected persons. Once the area is declared safe, a public information program should so inform the evacuees when to return, what to expect upon return (i.e., how to turn utilities back on), and how to request additional information. Return of victims. Once the hazard is mitigated, a public information program will inform the evacuees when to return, what to expect upon return, and of services being offered by local government.

ESF-1: APPENDIX 5 ATTACHMENT A - BOONE COUNTY EVACUATION MAP



ESF-1 APPENDIX 5 ATTACHMENT B – POTENTIAL STAGING AREAS

Staging areas are locations which may be used in the event of an evacuation which requires evacuees to relocate to a safe area. Staging areas can also be used as pick-up and drop-off points for resources and supplies into the affected area.

The following facilities represent centrally-located, easily accessible collection points for local residents. Sites chosen would be determined by the situation and prior agreement between the facility and local government.

<u>Boone County</u>	Boone County Fairgrounds Various community centers within the municipalities	
<u>Ashland Area</u>	Southern Boone County Fire Station #17 208 S. Henry Clay Blvd., Ashland, MO 65010	657-2370
	Ashland Optimist Bldg. 511 Optimist Drive, Ashland, MO 65010	657-2684
	Southern Boone County Schools Crump Lane, Ashland, MO 65010	657-2147
	Southern Boone County Senior Center 406 Douglas Drive, Ashland, MO 65010	657-9512
	Ashland Baptist Church 203 E. Broadway, Ashland, MO 65010	657-4653
<u>Hartsburg Area</u>	American Legion Building 35 S. 2nd Street, Hartsburg, MO 65039	657-2960
	Hartsburg Baptist Church 175 West Main Street, Hartsburg, MO 65039.	657-2311
	Peace United Church of Christ 121 N. 1st Street, Hartsburg, MO 65039	657-9414
<u>Southern Boone County</u>	Mt. Pleasant Baptist Church 636-2848 Highway 63, Hartsburg, MO 65039	
	Eagle Knoll Golf Club 5757 E. Eagle Knoll Drive, Hartsburg, MO 65039	761-9279
<u>Wilton Area</u>	Goshen Baptist Church 500 Cedar Tree Lane, Hartsburg, MO 65039	657-1060
<u>Sapp/Gasky Area</u>	Nashville Baptist Church Route N, Nashville Church Road, Ashland, MO 65010	657-2832

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ESF-2: COMMUNICATIONS AND WARNING

ESF-2 defines available, and potentially available, communications and warning capabilities in Boone County and its municipalities for use in disasters.

Agencies with identified roles and responsibilities in this annex include, but are not limited to:

Boone County Joint Communications (BCJC)
Boone County Amateur Radio Emergency Services (BCARES)
Boone County Office of Emergency Management (BCOEM)
Boone County Fire Protection District (BCFPD)
Boone Hospital Center (BHC)
Centralia Fire Department (CEFD)
Columbia/Boone County Public Health and Human Services (PHHS)
Columbia Fire Department (CFD)
Harry S. Truman VA Hospital
Missouri Department of Public Safety (DPS) Interoperable Communications (MOSWIN)
National Weather Service St. Louis (NWS)
Public and private agency public information officers
Private phone service providers
Private internet service providers
Southern Boone Fire Protection District (SBCFPD)
University of Missouri Healthcare (MUHC)
University of Missouri Police Department (MUPD)

SITUATION AND ASSUMPTIONS

SITUATION

Public safety communications capabilities for Columbia and Boone County exist primarily with Boone County Joint Communications located in the Emergency Communications Center (ECC) at 2145 County Drive in Columbia, Missouri. Centralia Police Department, Centralia Fire Department and the University of Missouri Police Department maintain their own dispatch capabilities.

BCJC is the 911 public safety answering point (PSAP) staffed 24-hours to provide services for Boone County. 911 calls for service for Centralia agencies and MUPD are first received by BCJC, and then relayed to the appropriate dispatch center. Jefferson City Police Department (JCPD) can provide back up 911 call taking capabilities, if necessary.

In the event of a power interruption, the BCJC Operations Center has uninterruptible power supply (UPS) systems and a back-up generator to operate the communications equipment and the 911 dispatch. The generator is tested weekly. Additionally, a backup communications center is located at 609 E. Walnut in Columbia.

BCJC also houses 5 amateur radios for BCARES applications with high frequency (HF), very high frequency (VHF) and ultra-high frequency (UHF) coverage.

BCJC provides 24-hour dispatching for the following agencies:

- Ashland Police Department
- Boone County Fire Protection District
- Boone County Sheriff's Department
- Boone Hospital Center EMS
- Centralia Fire Department
- Columbia Fire Department
- Columbia Police Department
- Columbia Regional Airport Public Safety
- Hallsville Police Department
- Southern Boone County Fire Protection District
- Sturgeon Police Department
- University of Missouri Hospital EMS

Columbia Public Works, Columbia Parks and Recreation, Columbia Water & Light and Boone County Road & Bridge provide their own communications systems. BCJC has transmit and receive capabilities on these frequencies, as well.

BCJC monitors the Missouri Statewide Interoperability Network (MOSWIN) and State Mutual Aid frequencies, and has capabilities to transmit on these frequencies if needed for interoperable operations.

Radio frequencies for emergency services operations are listed in Appendix 2 of this Annex.

Detailed information on resources and points of contact can be found in the EOC Contact and Resource Guide maintained by OEM.

ASSUMPTIONS

Existing communications and warning systems will survive and remain functional during most disasters. The exceptions may include such incidents as a nuclear attack or tornadoes which would require actions to ensure or restore functional abilities.

BCARES amateur radio operators will be available to assist before, during and after an emergency.

If local communications systems become overtaxed or inoperable, regional and/or state resources will be able to augment communications capabilities during the response and recovery phases of an incident.

Regardless of how well developed a warning system is, some citizens will ignore, not hear, or not understand warnings of impending disasters broadcast over radio, television and text, or sounded by local siren systems.

Phone service providers will be able to provide portable cellular capabilities to augment or replace communications capabilities affected by disaster.

CONCEPT OF OPERATIONS

GENERAL

In accordance with federal mandates, management of local disasters and emergencies will be initiated and conducted using the concepts and principles of the National Incident Management System (NIMS). On-scene management and coordination of responses will utilize the Incident Command System (ICS).

The communications activities described in this annex are an extension of normal day-to-day activities and deal only with those situations that could completely exhaust all available resources. Response agencies will follow standard communications protocols and processes during disaster operations with alterations based on incident needs.

ESF- 2 will be coordinated by representation from one or all communications agencies involved in the incident. Entities with ESF-2 responsibilities will provide liaisons to the EOC, if activated, to form an ESF-2 coordination group. Liaisons may locate to, and operate from, the EOC, or may retain a virtual presence with the EOC. The ESF-2 liaison(s) will coordinate communications resource management, maintain situational awareness, and provide information to the EOC regarding communications response and recovery efforts.

ESF-2 will prioritize, allocate and task communications assets in coordination with the other ESFs to support the disaster response and recovery efforts. Priorities will continually be reassessed to develop strategies and address the most critical needs.

The first resources to be utilized will be those that are under the control of, or are readily available to, the County and municipal governments. Generally, local resources will be used before outside assistance is requested from mutual aid, the state and/or federal government.

The EOC will not interfere with the internal operations of the involved agencies but will monitor the situation and provide support as requested.

Mutual aid resources will remain under the authority of their home agencies but will be mission assigned by ESF-2 in the EOC and utilized on site by the Incident Commander.

When the EOC is activated, all appropriate stakeholder partners will maintain a communications liaison with the EOC to share situation and operational information. Messages incoming and outgoing from the EOC will be handled according to the procedures in the EOC Standard Operating Guidelines. Communications may be augmented by utilizing BCARES radio communication networks.

Communications between the State EOC and local EOC will be through land-line telephone links, cellular phones, fax transmission, email, WebEOC and/or BCARES amateur radio or public safety radio contact.

Boone County communications capabilities are included in the Missouri Region F Tactical Interoperability Communications (TIC) Plan which defines systems and processes by which jurisdictions within Missouri Region F can communicate across jurisdictional boundaries during emergencies and disasters. The Region F TIC Plan is a companion document to the Statewide Interoperability Plan. The Statewide Plan is maintained by the Missouri Department of Public Safety which manages the MOSWIN system. MOSWIN and the Statewide Mutual Aid frequencies are the systems utilized for most responses requiring inter-jurisdictional radio communications.

WARNING

When a significant emergency occurs or is imminent, all appropriate and available warning systems will be utilized to alert and warn residents and visitors within the impact area. Warning information is dispersed throughout Boone County to citizens and public safety responders via the alerting systems listed below. These warning systems include all forms of media, public safety radio transmission, Rave alerts, outdoor warning sirens, and public address speakers and sirens on emergency vehicles. Tests and educational programs will be conducted regularly to ensure the public understands the various warnings.

Regardless of how well developed a system is, some citizens will ignore, not hear or not understand warnings of impending disasters broadcast over radio, television or sounded by local siren systems. Mobile public-address and door-to-door operations may be required in some situations.

RAVE/SMART911 ALERT

Smart911 is an internet-based platform maintained by BCJC through which citizens can opt in for Rave weather, traffic and other emergency notifications available via phone, text and/or email. Centralia has the ability to access the County Rave system to send alerts to citizens within their jurisdiction. The City of Columbia, the University of MO and Stephens College utilize separate Rave systems. Smart911 also allows the user to build a confidential profile for the address and its occupants to provide critical information to the dispatchers and emergency responders in the event the user calls 911. OEM has the ability to access self-reported information shared by citizens for disaster planning and response purposes.

OUTDOOR WARNING SIRENS

The County maintains fixed outdoor warning sirens at locations throughout the county. The sirens may be utilized for public warning for emergencies including tornados, severe weather which may cause damage/injuries, sustained winds of 80 mph and above, terrorist attack, and other incidents which may pose a danger to the siren-affected areas.

There are a total of (88) outdoor warning sirens located within the city of Columbia and the unincorporated areas of Boone County. Included in that number are three (3) sirens located in Centralia, two (2) sirens in Ashland, two (2) in Hallsville, one (1) at the Columbia Regional Airport, and one (1) each in the communities of Sturgeon, Harrisburg, Hartsburg and Rocheport.

The sirens are activated through BCJC via a radio link. Responsibility for activating the sirens rests with the ECC Director, OEM Deputy Director, BCJC shift supervisor or next highest-level person on duty. The decision will be made based on information from the National Weather Service, surrounding jurisdictions, user agency personnel, the Missouri State Highway Patrol and/or trained weather spotters in the field. Specific procedures for activating the sirens are contained in BCJC Standard Operating Procedures. The sirens are tested on the first Wednesday of every month at noon, weather permitting, as well as a silent signal feedback test nightly.

Maps of Boone County outdoor warning siren locations, zones and coverage areas are located in Appendix 4.

EMERGENCY ALERT SYSTEM (EAS)

The Emergency Alert System is a national public warning system used by federal, state and local authorities to deliver important emergency information, such as weather and AMBER alerts, over television and radio. The Integrated Public Alert & Warning System (IPAWS) is the platform used to disseminate EAS messages.

Emergency Alert System participants – radio and television broadcasters, cable systems, satellite radio and television providers, and wireline video providers – deliver state and local alerts on a voluntary basis, but are required to deliver Presidential alerts. The Federal Emergency Management Agency (FEMA) and the FCC work collaboratively to maintain the Emergency Alert System and Wireless Emergency Alerts, which are the two main components of the national public warning system. Authorized federal, state, and local authorities create the alerts that are transmitted through the system. The majority of Emergency Alert System alerts originate from the National Weather Service in response to severe weather events. FEMA is responsible for any national-level activation and tests of the Emergency Alert System.

Missouri maintains a collaborative State EAS Plan. State alerts may originate from the Missouri State Highway Patrol Troop F or the State Emergency Management Agency, both of which house the equipment capable of issuing an alert. Examples of statewide alerts include Amber Alerts, law enforcement warnings and civil emergency messages.

Local primary stations (LP) receive messages from the Department of Public Safety and relay them across the state. The local primary EAS station for Boone County is KTXF FM – 106.9. Monitoring stations for Boone County and the surrounding area are detailed in Appendix 5.

NATIONAL HOMELAND SECURITY ADVISORY SYSTEM

Any active national terrorism advisories will be posted on the BCOEM website. BCOEM also maintains pre-formatted news releases with recommended actions for members of the public to take under the various threat levels. Further information on the National Homeland Security Advisory System is in Appendix 7 of ESF-15.

WEATHER RADIO

Boone County receives initial severe weather warning information from the National Weather Service and NOAA weather radio.

Residents of the County are within range of an area transmitter for broadcasts of the NOAA Weather Radio network WXL45 162.400 operated by the NWS. Severe weather updates - including tornado, thunderstorm and flash flood warnings, and other 24-hour weather advisories - are broadcast by the NWS for the affected area. The signal is received by weather radio units activated when a severe weather bulletin is broadcast. These receivers are available to local emergency officials, schools, and the public from many retail stores. Transmitters and towers currently in Fulton (Callaway County), and Jamestown (Moniteau County) provide signal coverage for Boone and surrounding counties in central Missouri. A map depicting NOAA weather radio coverage for Boone County and the surrounding area can be found in Appendix 3 to this annex.

MISSOURI UNIFORM LAW ENFORCEMENT SYSTEM (MULES)

MULES is a law enforcement computer data network used by the Missouri State Highway Patrol primarily for law enforcement operations state and nationwide. It is also used to disseminate other emergency information, such as weather conditions, flood stages, road conditions, etc. MULES information is received and monitored by Boone County Joint Communications personnel.

NATIONAL WARNING SYSTEM (NAWAS)

NAWAS provides the framework for the Missouri Warning System. The NAWAS connects the National Warning Center (located in the North American Air Defense Command Combat Center, Colorado Springs,

Colorado) with approximately 2,000 warning points across the United States. The system is used for receiving national attack warnings and for communications to other warning points in the state for natural and man-made disasters.

The Missouri State Warning Point is Troop F Headquarters of the Missouri State Highway Patrol in Jefferson City. The alternate state warning point is the State Emergency Operations Center (SEOC) at SEMA. NAWAS terminals are located in the Boone County Joint Communications operations center and Room 119 within the EOC.

ASSIGNMENT OF RESPONSIBILITIES

The agencies with responsibility to this plan are tasked with the following actions:

- Prioritization, allocation and/or tasking of communications assets in support of disaster relief and recovery efforts.
- Providing liaison(s) and point of contact for ESF-2 at the EOC.
- Maintaining records of costs for supplies, resources and man-hours used in response to the disaster event.
- Maintaining standard operations guidelines (SOGs) that address communications responsibilities and needs.
- Maintaining lists of potentially available communications resources.
- Maintaining current mutual aid agreements, memoranda of understanding, and contractual resources to support disaster response and recovery communications needs.

BOONE COUNTY JOINT COMMUNICATIONS

As the primary public safety communications provider in the county, Boone County Joint Communications will support disaster situations through normal operations with additional responsibilities to include:

- Designating back-up communications and warning equipment should the equipment in either the primary or alternate locations fail to function.
- Maintaining current notification lists for all departments in the communications center.
- Providing security and protection of communications and warning equipment.

BCJC maintains a cooperative backup 911 call taking capability with Jefferson City Police Department (JCPD) dispatch. Should BCJC experience a full or partial 911 outage, JCPD is contacted and initiates the process which switches the 911 call routing to their dispatch center. BCJC maintains an open phone line with JCPD and should they receive a call for service within BCJC's jurisdiction, the information will be relayed and BCJC will coordinate the dispatch of appropriate resources. The process is reversed should JCPD experience an outage of their 911 call answering capabilities.

Phone is the primary means of communication between the two agencies, though each agency has access to the other's law enforcement channels which can be used should phone contact be compromised.

BCJC's backup facility located at 609 E. Walnut St. may serve as an additional call-taking resource should the main facility be compromised for whatever reason.

BOONE COUNTY OEM

OEM will activate the EOC if indicated by the extent of the incident, and will coordinate with the agencies listed in this annex to identify available resources to ensure all incident requirements are met. OEM will facilitate requests for mutual aid, and for state and federal resources, and will make provisions for logistical support for incident assets. OEM will collect and disseminate information about, and in support of, the incident, including situational information regarding hazards, resources, status of infrastructure, evacuation routes, etc., and will coordinate with the PIO(s)/JIC to disseminate pertinent information to the public.

The EOC will be the focal point for triage and prioritization decisions regarding response and restoration of critical services and infrastructure.

OEM will also be responsible for gathering cost information from resource providers to prepare for potential declaration of disaster.

Other communications support includes maintaining documentation of messages coming into and out of the EOC as outlined in the EOC SOGs.

BCARES AMATEUR RADIO

The BCARES local amateur radio group supports the ESF-2 function by co-locating licensed communications personnel in the BCJC Operations Center and/or EOC as requested. BCJC maintains 5 ARES radio consoles within the operations center. BCARES can transmit voice and data between Boone County and other local, state and federal partners via the Shared Resources High Frequency (SHARES HF) radio network which is administered by the Department of Homeland Security National Coordinating Center for Communications (DHS NCC).

PUBLIC INFORMATION OFFICERS (PIOs)

Designated agency PIOs will support warning operations and incident communication by broadcasting and disseminating approved messages from a collaborative Joint Information System (JIS). More information regarding messaging and the JIS is located in ESF-15.

BOONE COUNTY IT/GIS

Boone County IT and GIS will provide mapping and technological capabilities in support of the EOC and the incident in general.

HOSPITALS

Boone Hospital, University of Missouri Healthcare and Harry S. Truman Memorial Veterans' Hospital have radios which can access the Missouri Statewide Interoperability Network (MOSWIN) if normal communication methods are compromised. All three hospitals have also installed amateur radio equipment for BCARES operations. The hospital radio resources are intended to ensure communications capabilities among Healthcare Coalition members and other health care organizations for sustained patient care and movement. The radios may also be used to communicate with the EOC and/or BCJC for health and medical status updates as a backup to the standard EMS frequencies.

ADDITIONAL SUPPORT

Additional support for the communications and warning function will come from those departments or organizations having communications capabilities. These include law enforcement and fire departments, ambulance services, public works agencies and municipalities within the County.

DIRECTION AND CONTROL

In accordance with federal mandates, Boone County government, response agencies, and the municipalities within the county have adopted the National Incident Management System (NIMS) and the Incident Command System (ICS) as the standard for incident response and management.

Communications activities and missions will be coordinated by the ESF-2 representative or coordination group, with the supporting and assisting agencies retaining administrative direction and control over their resources. Coordination will be established with the IC and/or EOC (if activated) to prioritize and develop strategies and missions for response and recovery. Priorities will continually be reassessed to develop strategies and address the most critical needs.

Mutual aid resources will be managed by the EOC and local incident commanders but will retain the administrative oversight of their home agencies.

CONTINUITY AND SUCCESSION

The line of succession for Boone County Joint Communications – is as follows:

1. Emergency Communications Center Director
2. BCJC Deputy Director
3. Operations Manager

Lines of succession and continuity of operations plans for other ESF-2 partners are maintained by those departments or agencies.

Records vital to the continuity of the ESF are duplicated and stored at alternate locations.

ADMINISTRATION AND LOGISTICS

Specific operating procedures and protocols are maintained by the participating organizations.

Resources and points of contact are maintained in the EOP Contact and Resource Guide

Mutual aid agreements, memoranda of understanding and contractual resource lists regarding communications operations are maintained within individual agencies.

Procedures for use of forms, compiling information, and providing data to the EOC are in the EOC SOG.

The EOC will provide support and resources at the request of the incident commander.

Supply requisitions/resource requests will be made through normal channels to the extent possible but will be made through the EOC when necessary and coordinated by ESF-7 Logistics. Unusual expenditures will be directed to the Emergency Management Director and coordinated with the jurisdictional purchasing agents as per documented purchasing procedures

Each agency will track costs and personnel hours associated with the disaster for potential declaration and reimbursement purposes. Accurate records of hours worked, and supplies used must be reported to the EOC for use in determining the total cost of the disaster.

Agencies are responsible for recording response actions for inclusion in incident after-actions reports and improvement plans.

APPENDICES

Appendix 1: Communications and Warning Capabilities

Appendix 2: Radio Frequencies Licensed in Boone County

Appendix 3: NOAA Weather radio coverage

Appendix 4: Boone County Outdoor Warning Sirens

Appendix 4: Attachment A – Siren Locations & Coverage

Appendix 4: Attachment B – Siren Zones

Appendix 5: Emergency Alert System (EAS) Information

Appendix 6: Form ICS-205 Communications Plan

Appendix 7: Communications Log, Significant Event Log, Message Form

Appendix 8: Regional MOSWIN Communications Plan

ESF-2 APPENDIX 1: COMMUNICATIONS AND WARNING CAPABILITIES

See Resource Directory for full listing of contact information including qualified Communications Unit Leaders (COML) and Communications Technician (COMT) resources.

ESF-2 APPENDIX 2: RADIO FREQUENCIES LICENSED IN BOONE COUNTY

Main Law Network

Columbia Police Tactical Channel 2 ..

Columbia Police Tactical Channel 3

Boone County Sheriff Tactical

Boone County Corrections Center

University of MO Police

Columbia Fire (Purple)

Boone County Fire (Green)

Boone County Fire (UHF Link)

EMS Dispatch

EMS Mutual Aid VMED28 (HEAR)

EMS Mutual Aid VMED29

University Hospital Ambulance

Cent-Comm Helicopter

Weather (NOAA) 24 Hour Weather Broadcast

Columbia Public Works

Transit, Sewer, Fleet Ops

Solid Waste

Street

Boone County Public Works

Columbia Water and Light ..

Boone County Road and Bridge

Law Mutual Aid

Point to Point

State Sheriff

Statewide Fire Mutual Aid - VFire21 (Red)

Special MO Fire Ground - VFire23 (Blue)

BCARES Repeater

BCARES Repeater

BCARES Repeater

BCARES Repeater

BCARES Repeater

Boone County FPD Fireground (Gold)

Fireground (Brown)

Columbia FD Fireground (Gray)

Fireground (Yellow)

Fire Mutual Aid – VFire22 (White)

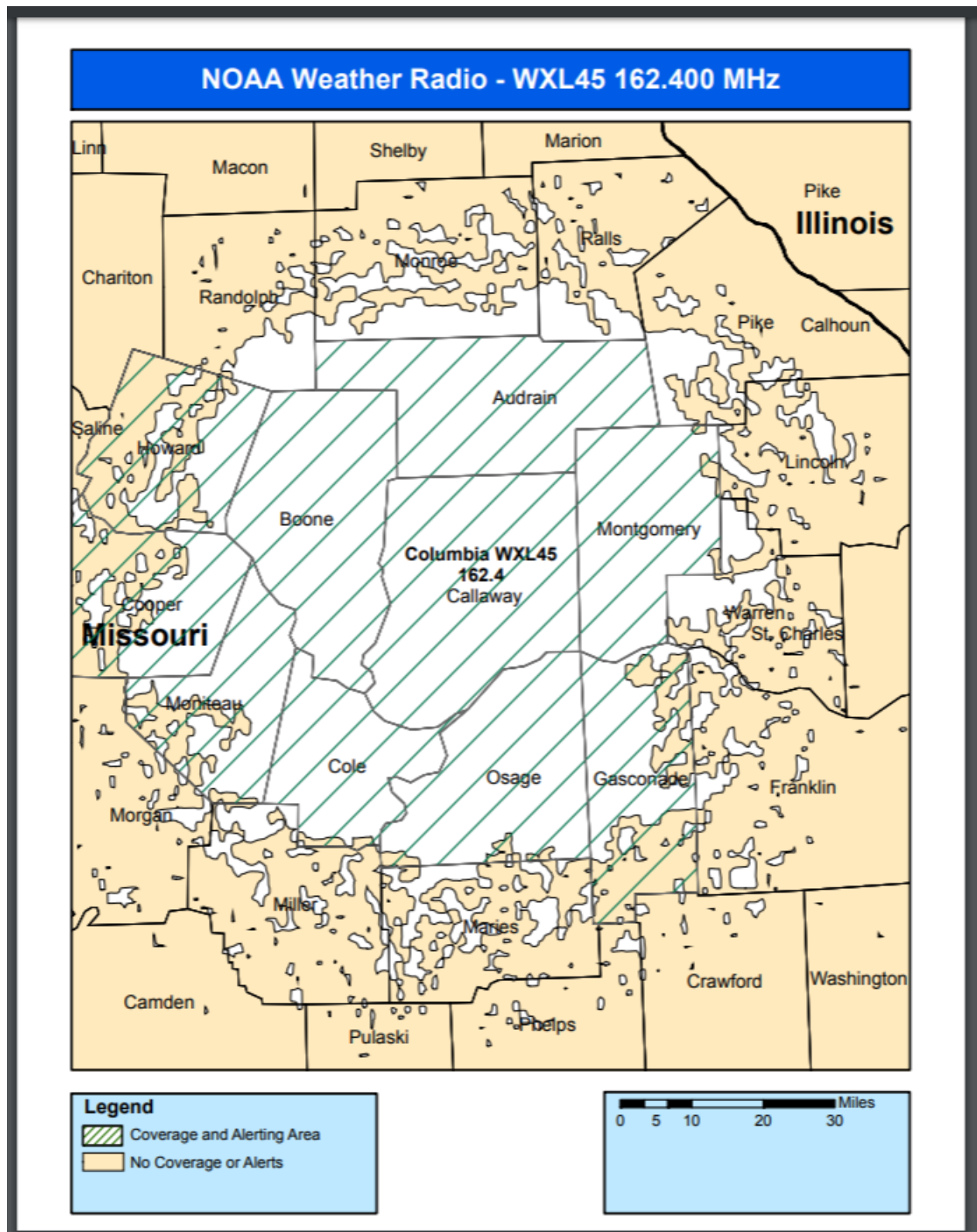
Fire Mutual Aid – VFire23

Fire Mutual Aid – VFire24

Fire Mutual Aid – VFire25

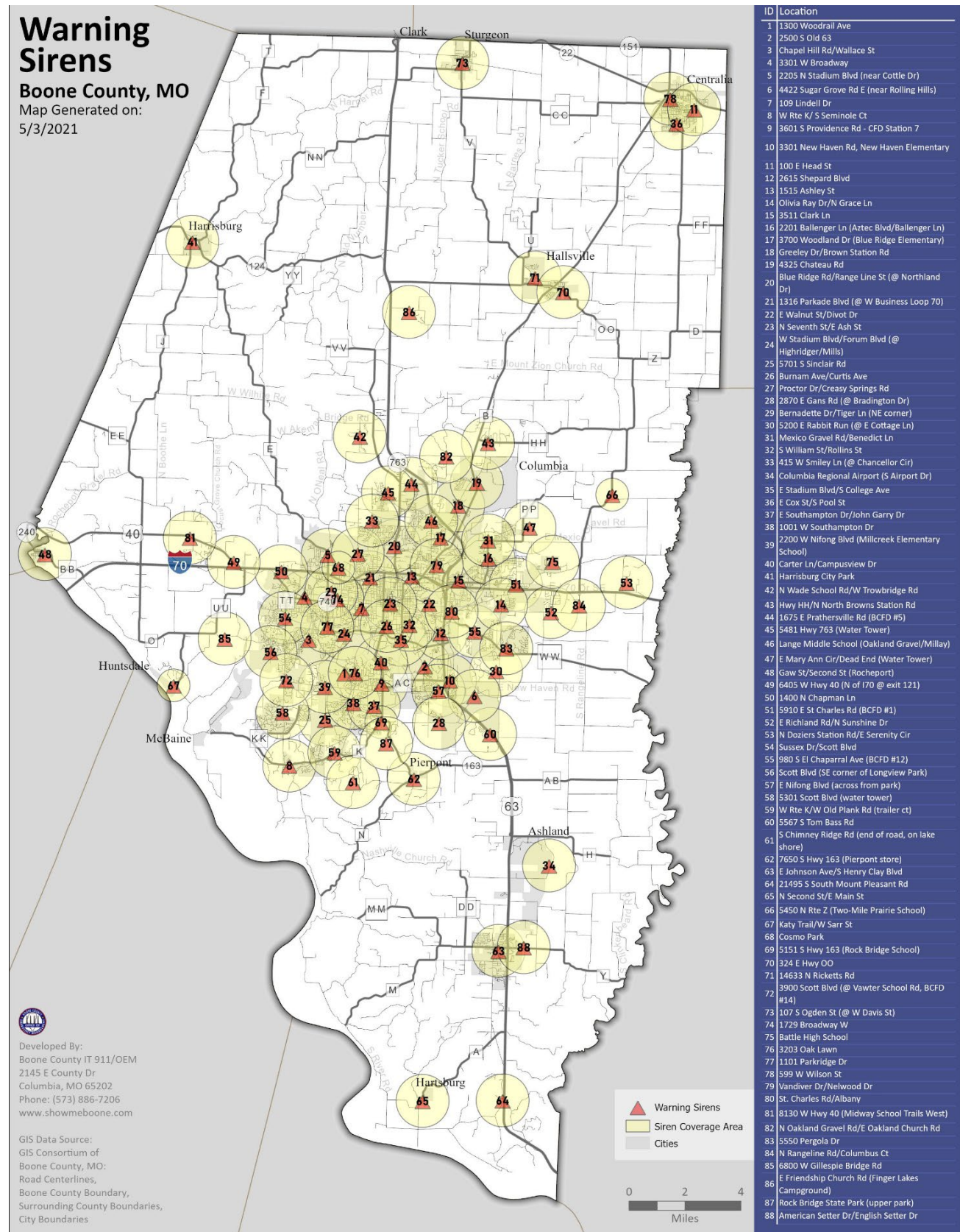
Fire Mutual Aid –VFire26

ESF-2 APPENDIX 3: NOAA WEATHER RADIO COVERAGE

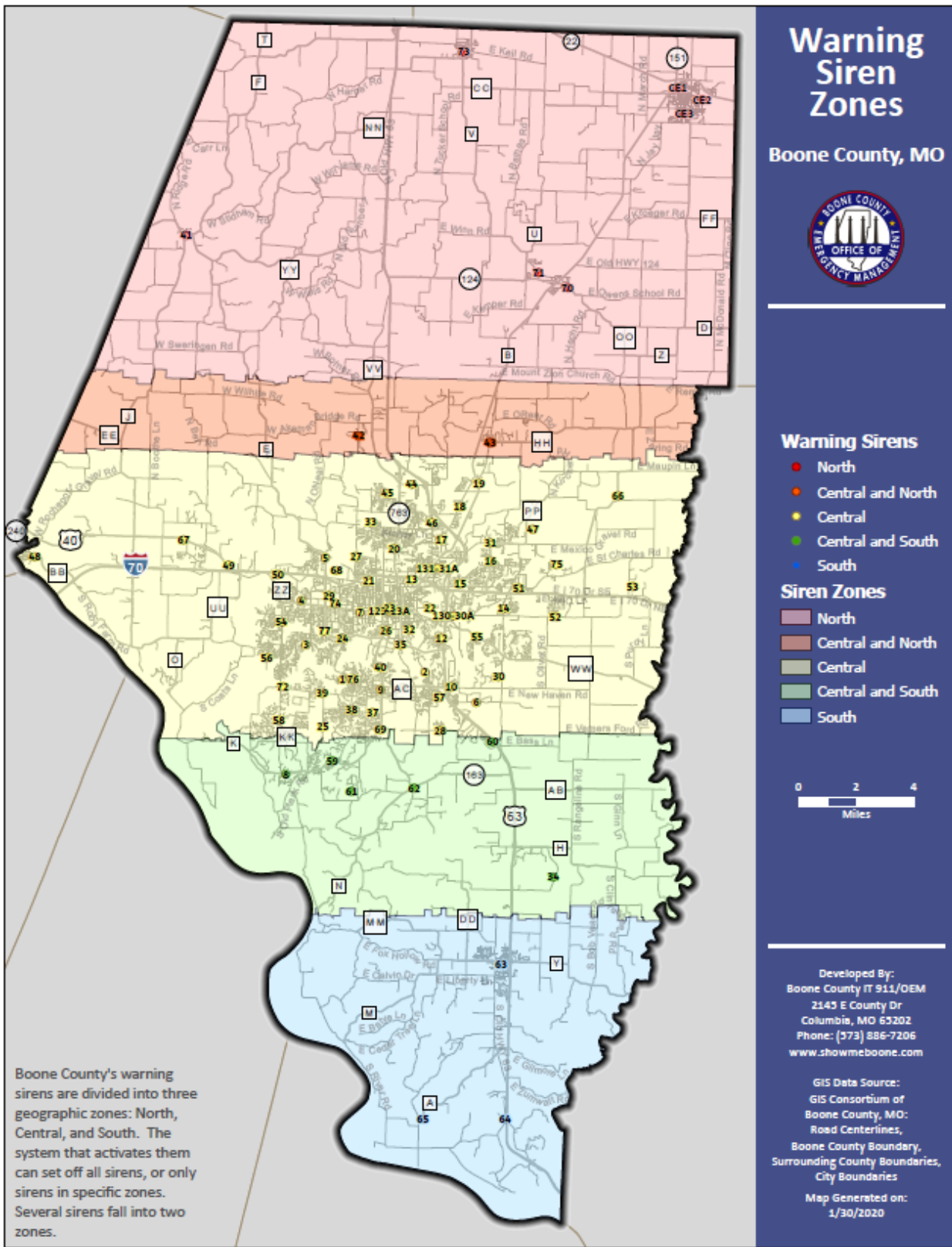


ESF-2 APPENDIX 4 - BOONE CO OUTDOOR WARNING SIRENS

ESF-2 APPENDIX 4: ATTACHMENT A - SIREN LOCATIONS AND COVERAGE



ESF-2 APPENDIX 4: ATTACHMENT B - SIREN ZONES



ESF-2 APPENDIX 5: EMERGENCY ALERT SYSTEM (EAS)

The Emergency Alert System (EAS) is a national public warning system that requires broadcasters, cable television systems, wireless cable systems, satellite, digital audio radio service (SDARS) providers, and direct broadcast satellite (DBS) providers to provide the communications capability to the President to address the American public during a national emergency. The system may also be used by state and local authorities to deliver important emergency information, such as AMBER alerts and weather information targeted to specific areas.

Boone County is in the Jefferson City operational area for the Missouri Emergency Alert System (EAS). The local primary State EAS network station (LP) for this operational area is KTXV-FM, 106.9. The point of contact for the LP is:

Mike Mayfield
573-875-1099
mikem@zrgmail.com

A Boone County radio station is designated to broadcast EAS messages for local emergencies of specific interest to the residents of Boone County and its municipalities:

Local EAS Radio Station for Boone County: KFRU-AM 1400 (573) 449-4141 Fax 499-1414

Television stations for this area include:

KRCG-TV Channel 13 (CBS), Jefferson City	(573) 896-5144	Fax (573) 896-5193
KMIZ-TV Channel 17 (ABC), Columbia	(573) 449-1700	Fax (573) 449-6271
KOMU-TV Channel 8 (NBC), Columbia	(573) 882-8888	Fax (573) 884-5353

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[illegible]

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[illegible]

Boone County Office of Emergency Management

GENERAL MESSAGE		Incident Number				ICS 213	
Incident Name				Operational Period			
To:				Position:			
From:				Position:			
Subject:				Date:		Time:	
MESSAGE							
Approved By:		Signature:		Date		Time	
REPLY							
Received By:		Signature:		Date		Time	

Boone County OEM ICS Form Set

Revised: 06/01/2016

ESF-2 APPENDIX 8: REGIONAL MOSWIN COMMUNICATIONS PLAN

INCIDENT RADIO COMMUNICATIONS PLAN			Incident Name			Date/Time Prepared		Operational Period Date/Time	
REGIONAL ICS-205						3/20//2017 12:00:00 AM		STANDING	
Ch #	Function	Channel Name/Trunked Radio System Talkgroup	Assignment	RX Freq N or W	RX Tone/NAC	TX Freq N or W	Tx Tone/NAC	Mode A, D or M	Remarks
2	Coordination	REG (A - I) IO CALL	Regional coordination / all users	MOSWIN trunked				D	Regional inter-discipline coordination
3	Tactical	REG (A - I) IO 1	Regional Tactical Comms / all users	MOSWIN trunked				D	Regional inter-discipline tactical operations
4	Tactical	REG (A - I) IO 2	Regional Tactical Comms / all users	MOSWIN trunked				D	Regional inter-discipline tactical operations
5	Tactical	REG (A - I) IO 3	Regional Tactical Comms / all users	MOSWIN trunked				D	Regional inter-discipline tactical operations
6	Tactical	REG (A - I) IO 4	Regional Tactical Comms / all users	MOSWIN trunked				D	Regional inter-discipline tactical operations
7	Coordination	MO IO CALL	Inter-regional / all users	MOSWIN trunked				D	Coordination between regions/Contact with MO SECO
8	Tactical	REG (A - I) EMS1	Regional Tactical Comms / all users	MOSWIN trunked				D	Regional EMS tactical operations
9	Tactical	REG (A - I) EMS2	Regional Tactical Comms / all users	MOSWIN trunked				D	Regional EMS tactical operations
Prepared By (Communications Unit)					Incident Location				
MOSWIN System Administration					STANDING MOSWIN ICS205				
					County	State	Latitude	Longitude	
The convention calls for frequency lists to show four digits after the decimal place, followed by either an “N” or a “W”, depending on whether the frequency is narrow or wide band. Mode refers to either “A” or “D” indicating analog or digital (e.g. Project 25) or “M” indicating mixed mode. All channels are shown as if programmed in a control station, mobile or portable radio. Repeater and base stations must be programmed with the Rx and Tx reversed.									
ICS 205 Excel									
3/2007									

INCIDENT RADIO COMMUNICATIONS PLAN			Incident Name			Date/Time Prepared			Operational Period Date/Time		
REGION ICS-205						3/20/2017 0:00			STANDING		
Ch #	Function	Channel Name/Trunked Radio System Talkgroup	Assignment	RX Freq N or W	RX Tone/NAC	TX Freq N or W	Tx Tone/NAC	Mode A, D or M	Remarks		
10	Tactical	REG (A - I) EMD	Regional Tactical Comms / all users	MOSWIN trunked				D	Regional EMD tactical operations		
11	Tactical	REG (A - I) FIRE1	Regional Tactical Comms / all users	MOSWIN trunked				D	Regional FIRE tactical operations		
12	Tactical	REG (A - I) FIRE2	Regional Tactical Comms / all users	MOSWIN trunked				D	Regional FIRE tactical operations		
13	Tactical	REG (A - I) FIRE3	Regional Tactical Comms / all users	MOSWIN trunked				D	Regional FIRE tactical operations		
14	Tactical	REG (A - I) LAW1	Regional Tactical Comms / all users	MOSWIN trunked				D	Regional LAW tactical operations		
15	Tactical	REG (A - I) LAW2	Regional Tactical Comms / all users	MOSWIN trunked				D	Regional LAW tactical operations		
16	Tactical	REG (A - I) LAW3	Regional Tactical Comms / all users	MOSWIN trunked				D	Regional LAW tactical operations		
17											
The convention calls for frequency lists to show four digits after the decimal place, followed by either an “N” or a “W”, depending on whether the frequency is narrow or wide band. Mode refers to either “A” or “D” indicating analog or digital (e.g. Project 25) or “M” indicating mixed mode. All channels are shown as if programmed in a control station, mobile or portable radio. Repeater and base stations must be programmed with the Rx and Tx reversed.											
ICS 205 Excel									3/2007		
Prepared By (Communications Unit)					Incident Location		STANDING MOSWIN ICS205				
MOSWIN SYSTEM ADMINISTRATION					County	State	Latitude	Longitude			

INCIDENT RADIO COMMUNICATIONS PLAN			Incident Name			Date/Time Prepared			Operational Period Date/Time		
			REGION ICS205			3/20/2017 0:00			STANDING		
Ch #	Function	Channel Name/Trunked Radio System Talkgroup	Assignment	RX Freq	N or W	RX Tone/NAC	TX Freq	N or W	TX Tone/NAC	Mode A, D or M	Remarks
21	Coordination	MTAC	Local coordination / all users								Local conventional simplex
22	Coordination	VCALL10	Local coordination / all users								Local conventional simplex
23	Tactical	VTAC11	Local Tactical Operations / all users								Local conventional simplex
24	Tactical	VTAC12	Local Tactical Operations / all users								Local conventional simplex
25	Tactical	VTAC13	Local Tactical Operations / all users								Local conventional simplex
26	Tactical	VTAC14	Local Tactical Operations / all users								Local conventional simplex
27	Tactical / Rptr	VTAC36	Local Tactical Operations / all users								Local conventional duplex
28	Tactical / Rptr	VTAC37	Local Tactical Operations / all users								Local conventional duplex
29											
30											
<p>The convention calls for frequency lists to show four digits after the decimal place, followed by either an "N" or a "W", depending on whether the frequency is narrow or wide band. Mode refers to either "A" or "D" indicating analog or digital (e.g. Project 25) or "M" indicating mixed mode. All channels are shown as if programmed in a control station, mobile or portable radio. Repeater and base stations must be programmed with the Rx and Tx reversed.</p>											
ICS 205 Excel											
Prepared By (Communications Unit)											
MOSWIN SYSTEM ADMINISTRATION											
				County	State	Latitude	Longitude				

ESF-3: PUBLIC WORKS

This annex will organize the public works resources of Boone County and its municipalities to enable repair and restoration of essential public facilities and services, and public and private utilities as a result of a disaster. "Public works," for the purposes of this plan, refers to electric, natural gas, water, streets/roads, bridges, sewer, solid waste/sanitation.

Agencies with identified roles and responsibilities in this annex include, but are not limited to:

Ashland Sewer System
Boone County Public Water Supply Districts 4, 9 and 10
Boone County Regional Sewer District (BCRSD)
Boone County Road and Bridge (BCRB)
Centralia Electric Department
Centralia Special Road District
Columbia Public Works
Columbia Solid Waste
Columbia Water and Light (W&L)
Consolidated Water District 1
Sturgeon Water and Sewer Department
Ameren UE
Boone County Office of Emergency Management (BCOEM or OEM)
Boone Electric Cooperative (BEC)
Columbia Parks & Recreation
Missouri Department of Natural Resources (DNR)
Missouri Department of Transportation (MODOT)
Missouri National Guard (MONG)
Missouri Structural Assessment and Visual Evaluation Coalition (SAVE)
Sturgeon Parks and Recreation Board
U.S. Army Corps of Engineers (USACE)

SITUATION AND ASSUMPTIONS

SITUATION

The citizens of Boone County and its municipalities depend on both public and private providers of public works and utilities services.

Boone County is subject to hazards that may damage critical infrastructure.

The Environmental Protection Agency (EPA) requires vulnerability assessments for public drinking water systems serving more than 3,300 customers to protect against damage and contamination resulting from acts of terrorism and or natural and technological disasters. For Boone County, water systems under this requirement include:

- The City of Columbia municipal system, which serves about 64,000 customers.
- The University of Missouri, Columbia water system, which serves about 15,000 people.
- The City of Centralia water system, which serves about 3,500 people.
- Boone County Public Water Supply District # 1, serving about 18,621 people.
- Boone County Public Water Supply District # 4, serving about 5,760 people.
- Boone County Public Water Supply District # 9, serving about 8,000 people.
- Boone County Public Water Supply District # 10, serving about 3,938 people.

All other public drinking water supply systems in Boone County serve less than 3,300 people. They are also required to maintain and update existing emergency operations plans to include security measure for terrorism preparedness.

Detailed information on resources and points of contact can be found in the EOC Contact and Resource Guide maintained by OEM.

ASSUMPTIONS

The area/regional public works infrastructure may sustain damage and lose operability as a result of a disaster and cascading effects.

The critical systems that generally comprise public works are potential targets for terrorists.

Public works facilities have emergency plans and procedures in place to monitor, protect, and maintain essential operations to protect life and property, as well as bring about a prompt recovery from disaster.

When a major disaster occurs, the requirement for public works capacity may exceed the availability of jurisdictionally controlled or readily obtainable assets. Local public works department(s) may not have adequate resources to deal with all potential problems immediately and will need to assign tasks on a priority basis.

State, federal, mutual aid and private resources are available to assist in public works activities should all local resources become committed.

Private resources are available in the county and municipalities and will cooperate as required.

Disaster responses will require transportation capacity that may exceed local resources.

Expedited clearing of access routes will permit flow of emergency relief, although localized distribution patterns will be disrupted for a significant period.

Local landfills and waste disposal facilities may prove inadequate to deal with large amounts of debris requiring alternate disposal methods and facilities.

CONCEPT OF OPERATIONS

GENERAL

In accordance with federal mandates, management of local disasters and emergencies will be initiated and conducted using the concepts and principles of the National Incident Management System (NIMS). On-scene management and coordination of responses will utilize the Incident Command System (ICS).

The public works activities described in this annex are an extension of normal day-to-day activities and deal only with those situations that could completely exhaust all available resources.

ESF-3 will be coordinated by representation from one or all public works agencies involved in the incident. Entities with ESF-3 responsibilities will provide liaisons to the EOC, if activated, to form an ESF-3 coordination group. Liaisons from primary and support agencies may locate to, and operate from, the EOC, or may retain a virtual presence with the EOC. The ESF-3 liaison will coordinate public works resource management, maintain situational awareness, and provide information to the EOC regarding public works response and recovery efforts.

ESF-3 will prioritize, allocate and task assets in coordination with the other ESFs to support the disaster response and recovery efforts. Priorities will continually be reassessed to develop strategies and address the most critical needs.

Local resources will be used first before outside assistance is requested from mutual aid, the state and/or federal government. The first resources to be identified will be those that are under the control of, or are readily available to, the County and municipal governments.

The EOC will not interfere with the internal operations of the involved agencies but will monitor the situation and provide support as requested.

Mutual aid resources will remain under the authority of their home agencies but will be mission assigned by ESF-3 in the EOC and utilized on site by the Incident Commander.

Municipal, county and private public works services along with private sector architects, engineers, construction contractors, equipment dealers and other owners and operators of construction equipment will assist with emergency response and recovery activities to include the following:

- Damage assessment and structural evaluation.
- Stabilizing or demolishing structures to reduce hazards
- Provision of heavy equipment to support rescue efforts.
- Provision of water for human health needs and firefighting.
- Debris removal [see the Boone County Debris Management Plan - Appendix 3].
- Emergency repairs to roads, bridges, public works and other critical facilities and infrastructure.

Boone County Jail detainees and Department of Corrections inmates may also be utilized for specific controlled work, such as sandbagging.

PRIORITY OF SERVICES

Each public works organization will have priorities for emergency repairs. Below are general guidelines for repairs following a disaster, though each disaster will have a different set of circumstances requiring prioritization at the time of the event.

- Clear debris and make repairs to roads and bridges that are impeding rescue crews and equipment (lifesaving).
- Restore services to critical facilities and special needs facilities (hospitals, nursing homes, temporary shelters, etc.).
- Repair roads and bridges which have isolated people.
- Restore services to schools and businesses.
- Make any necessary repairs to expedite recovery.

EVIDENCE PRESERVATION

Debris removal following a terrorism incident may require transportation of debris to another location in order to obtain and preserve potential evidence.

HAZARDOUS MATERIALS INCIDENT SUPPORT

In the event of a hazardous materials incident, county and city public works departments will assist the IC or the EOC staff as needed, i.e. by providing and placing barricades, constructing dikes and dams, etc.

DAMAGE ASSESSMENT

Damage assessment is cooperatively accomplished by OEM, public works, public safety responders, Red Cross and SAVE volunteers. In the case of a potential federal declaration, representatives from FEMA, SEMA and the Small Business Administration (SBA) will participate in the damage assessment team as well. OEM will maintain a record of the assessment and coordinate with SEMA and FEMA if and when circumstances require the issuance of a state and/or federal disaster declaration.

ASSIGNMENT OF RESPONSIBILITIES

The agencies with responsibility to this plan are tasked with the following actions:

- Prioritization, allocation and/or tasking of all public-sector public works assets in support of disaster relief and recovery efforts.
- Providing liaison(s) and point of contact for ESF-3 at the EOC.
- Maintaining records of costs for supplies, resources and man-hours used in response to the disaster event.
- Maintaining standard operations guidelines (SOGs) that address public works responsibilities and needs.
- Maintaining lists of potentially available public works resources.

- Maintaining current mutual aid agreements, memoranda of understanding, and contractual resources to support emergency public works' needs.
- Providing for debris removal.
- Providing potable water supply.
- Conducting damage assessments for roads, bridges, buildings and any other structures, and determining the safety of emergency operations facilities, public shelters and evacuation routes.
- Providing emergency road and bridge repairs, road closures, detours and barricades.
- Providing or coordinating with private contractors to provide sanitation services.
- Protecting the water supply and sewage system from threats or compromise.
- Assisting with search and heavy rescue operations.
- Coordinating restoration of utility services, prioritizing critical and essential facilities.
- Participating in cleanup and recovery operations.
- Inspection, designation and demolition of hazardous structures.
- Draining flooded areas where necessary.

The following departments will support public works activities:

BOONE COUNTY OEM

OEM will activate the EOC if indicated by the extent of the incident.

OEM will coordinate with the primary and support agencies listed in this annex to identify available resources to ensure all incident requirements are met. OEM will facilitate requests for mutual aid, and for state and federal resources, and will make provisions for logistical support for incident assets.

OEM will collect and disseminate information about, and in support of, the incident; OEM will gather situational information regarding hazards, resources, status of infrastructure, evacuation routes, etc., and will coordinate with the PIO(s)/JIC to disseminate pertinent information to the public.

The EOC will be the focal point for triage and prioritization decisions regarding the restoration of critical services and infrastructure, and providing response and recovery support to residents and businesses.

OEM will also be responsible for gathering cost information from resource providers to prepare for potential declaration of disaster.

BOONE COUNTY IT/GIS

Boone County IT and GIS will provide mapping and technological capabilities in support of the EOC and the incident in general.

PARKS AND RECREATION DEPARTMENTS

Municipal parks departments may be able to provide equipment and personnel to assist with debris clearance, street closures/barricade placement, and damage assessment.

CODE ENFORCEMENT OFFICER

Municipal code enforcement personnel may be available to inspect and assess damaged structures and can coordinate with sanitation service providers.

STATE SUPPORT AGENCIES

MO Dept. of Natural Resources (DNR)

DNR can assist with management of environmental issues associated with debris removal, as well as securing emergency environmental waivers and legal clearances for debris clearance and disposal.

MO Dept. of Transportation

MODOT will coordinate with local agencies to provide road and bridge inspection, and road clearance, closure and repair.

Missouri National Guard

MONG can provide heavy equipment and personnel for rescue and debris management operations, as well as providing engineering personnel to assist with structural inspections. The National Guard must be released to respond by the Governor and are requested through SEMA.

Missouri Structural Assessment and Visual Evaluation (Save) Coalition

The SAVE Coalition is a group of volunteer engineers, architects, building inspectors and other trained professionals that may be requested by SEMA to do building damage inspections. After a disaster, SAVE volunteers are trained to move quickly to determine which buildings are safe to use and which should be evacuated. Personnel trained under the SAVE program assist local jurisdictions and local building inspectors. By providing essential demolition, cleanup or other related services, it can be determined whether buildings affected by the disaster may be occupied, must be vacated temporarily, or should be demolished.

FEDERAL SUPPORT AGENCY

U.S. Army Corps of Engineers (USACE)

The USACE can supplement State and local emergency response actions by providing technical assistance, engineering expertise and construction management.

PRIVATE AGENCIES

The private utility companies are responsible for the direction and control of the services they provide to their customers and are not under the day-to-day control of the county and municipal governments. Specific tasks requested from private entities will likely include:

- Coordinate response activities with ESF-3.
- Restoration of services.
- Logistics support by providing equipment, manpower, etc.
-

DIRECTION AND CONTROL

In accordance with federal mandates, Boone County government, response agencies, and the municipalities within the county have adopted the National Incident Management System (NIMS) and the Incident Command System (ICS) as the standard for incident response and management.

Public works activities and missions will be coordinated by the ESF-3 representative or coordination group, with the supporting and assisting agencies retaining administrative direction and control over their resources. Coordination will be established with the EOC (if activated) and/or IC to prioritize and develop strategies and missions for response and recovery. Priorities will continually be reassessed to develop strategies and address the most critical needs.

Mutual aid resources will be managed by the EOC and local incident commanders, but will retain the administrative oversight of their home agencies.

CONTINUITY AND SUCCESSION

Lines of succession and continuity of operations plans are maintained at the agency or department level.

Records vital to the continuity of the public works function are duplicated and stored at alternate locations.

ADMINISTRATION AND LOGISTICS

Specific operating procedures and protocols are maintained by the participating organizations.

Resources and points of contact are maintained in the EOP Contact and Resource Guide.

Mutual aid agreements, memoranda of understanding and contractual resource lists regarding transportation operations are maintained within individual agencies.

Procedures for use of forms, compiling information, and providing data to the EOC are located in the EOC SOG.

The EOC will provide support and resources at the request of the incident commander.

Supply requisitions/resource requests will be made through normal channels to the extent possible, but will be made through the EOC when necessary and coordinated by ESF-7 Logistics. Unusual expenditures will be directed to the Emergency Management Director and coordinated with the jurisdictional purchasing agents as per documented purchasing procedures

Each agency will track costs and personnel hours associated with the disaster to provide to OEM for disaster declaration activities. Accurate records of hours worked, and supplies used must be reported to the EOC for use in determining the total cost of the disaster. All actions taken must be recorded as they are essential for future planning and mitigation, response and recovery, and training and exercise.

Communications for this function will be provided as outlined in the ESF-2 annex of this plan.

APPENDICES

Appendix 1: Boone County Water Districts Map

Appendix 2: Public Works Contacts and Resources

Appendix 3: Boone County Debris Management Plan



ESF-3 APPENDIX 2: PUBLIC WORKS CONTACTS AND RESOURCES

The public works providers within Boone County maintain lists of personnel and equipment. This information is kept on file with the respective providers, and with the Office of Emergency Management in the EOP Contact and Resource Guide.

Ashland Sewer System

109 East Broadway
Ashland, MO 65010
573-657-2091

http://www.ashlandmo.us/residents/city_hall.php

Boone County Public Water Supply Districts 4,9,10

PWSD #4
14530 N. Route U
Hallsville, MO 65255
573-696-3511

<https://pwsd4hallsville.com/>

PWSD #9

391 N. Rangeline Road
Columbia, MO 65201
573-474-9521

<http://pwsd9.com/>

PWSD #10

22601 N. March Rd.
Centralia, MO 65240
573-682-5314

Boone County Regional Sewer District

1314 North Seventh Street
Columbia, Missouri 65201
573-443-2774

<http://www.bcrsd.com/site/>

Boone County Road and Bridge

5551 S. Tom Bass Road
Columbia, MO 65201
573-449-8515

<https://www.showmeboone.com/road-bridge/>

Boone Electric

1413 Rangeline Street
Columbia, MO 65201
573-449-4181

<https://www.booneelectric.coop/>

Centralia Special Road District

Columbia Public Works

Columbia Water & Light

701 E. Broadway
Columbia, MO 65201
573-874-2489

<https://www.como.gov/utilities/water-and-light/>

Consolidated Water District 1

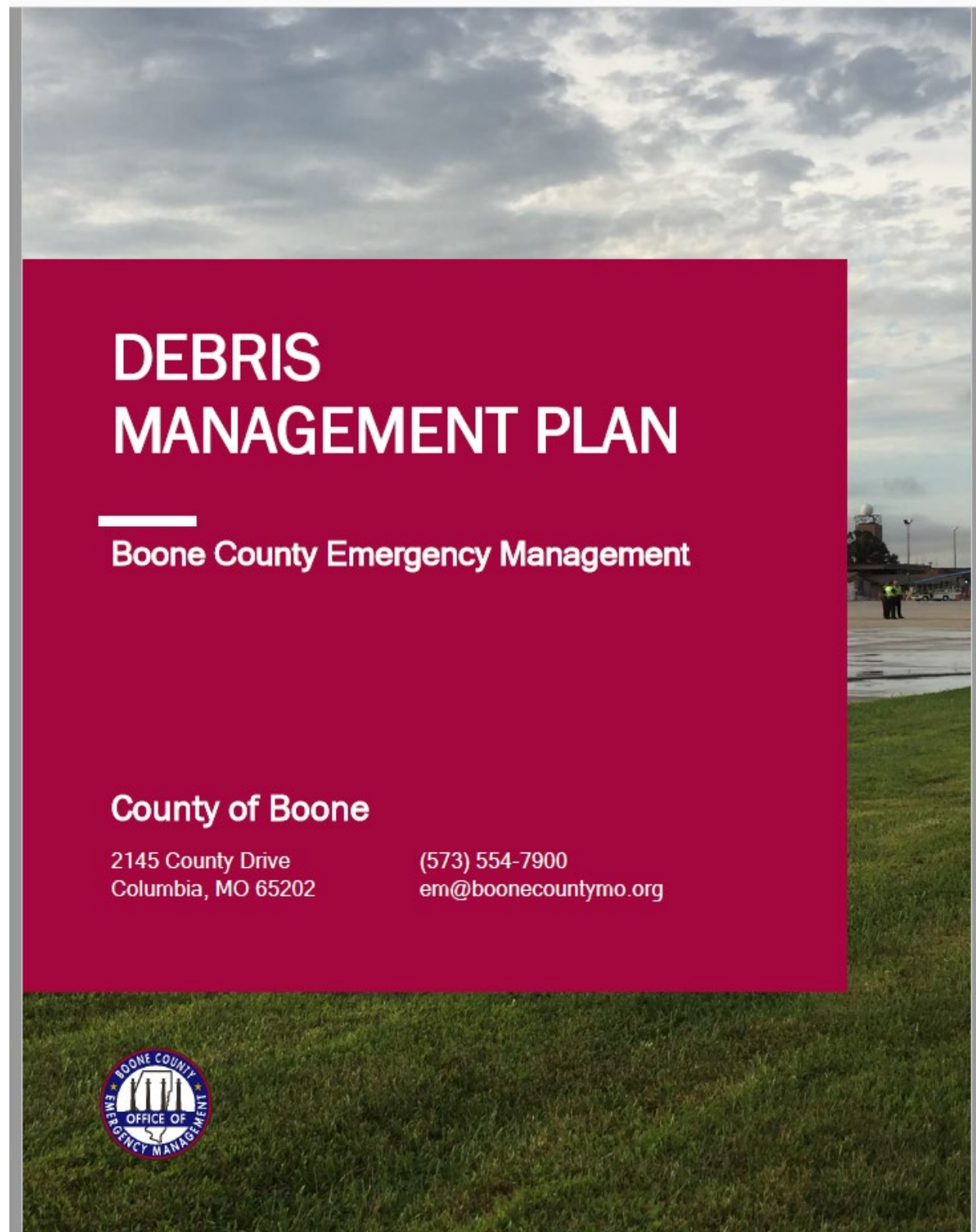
1500 N. 7th St.
Columbia, MO 65201
573-449-0324

<https://consolidatedwater.com/>

Sturgeon Parks and Recreation Board

Sturgeon Water and Sewer Department

ESF-3 APPENDIX 3: DEBRIS MANAGEMENT PLAN



DEBRIS MANAGEMENT PLAN

Boone County Emergency Management

County of Boone

2145 County Drive
Columbia, MO 65202

(573) 554-7900
em@boonecountymo.org



Boone County Debris Management Plan

I. Introduction

Purpose

The Multi-Jurisdictional Disaster Debris Management Plan provides policies and guidance for the removal and disposition of debris in response to a natural or manmade debris-generating event. It provides the framework to unify the efforts of utilities, public works, city and township agencies and departments, local governments, non-governmental and voluntary organizations, and regional and federal partners involved in emergency debris cleanup operations. When properly implemented, the result will be a coordinated and comprehensive effort to reduce debris-related impacts of an emergency or disaster.

This plan identifies the agencies and their responsibilities involved in debris operations to ensure a coordinated response which achieves removal, storage, and final disposal of debris deposited along or immediately adjacent to public rights-of-way within the jurisdictional boundaries of Boone County, Missouri. These coordinated actions will help mitigate the potential threat to the lives, health, safety, and welfare of the impacted citizens, expedite recovery efforts, and address the threat of further damage to improved public and private property.

Scope

This Debris Management Plan will serve as a support annex to the Boone County Emergency Operations Plan (EOP). It provides organizational structure, guidance, and standardized guidelines for field operations in the clearance, removal, and disposal of debris caused by a major debris-generating event. This plan shall apply to all responding departments and agencies.

This plan will assist responding staff in implementing and coordinating public and private sector debris removal and disposal actions to maximize cleanup efforts.

II. Situation and Assumptions

The Robert T. Stafford Disaster Relief and Emergency Assistance Act (P.L. 93-28), as amended, authorizes the Federal Emergency Management Agency (FEMA) Public Assistance Program to award federal funding to the state and local governments, federally recognized tribes, and eligible private non-profit organizations to assist them in their disaster response and recovery activities.

FEMA characterizes work eligible for Public Assistance grants as either emergency or permanent work. Debris management activities are grouped into Category A (Debris Removal) and Category B (Emergency Protective Measures). Debris management activities in these categories must meet all of the following:

- Be required as a result of the disaster event
- Be located within a designated disaster area
- Be the legal responsibility of the local government entity
- Be in the public interest, which is defined as work necessary to meet the following:
 - Eliminate immediate threats to life, public health, and safety
 - Eliminate immediate threats of significant damage to improved public or private property
 - Ensure economic recovery of the affected community to the benefit of the community-at-large; or
 - Mitigate the risk to life and property by removing substantially damaged structures and associated appurtenances as needed to convert property acquired through a FEMA hazard mitigation program to uses compatible with open space, recreation, or wetlands management practices
- Be of reasonable cost, which is defined as a cost which in its nature does not exceed that which would be incurred by a prudent person under the circumstance prevailing at the time the decision was made to incur the cost.

For debris removal work, per FEMA's 2007 Public Assistance Debris Management Pilot Program, regular hourly labor rate and overtime costs (including benefits) are eligible for permanent employees, reassigned employees, and seasonal employees (used during the season of anticipated employment).

Types of Disaster Events

Debris forecasting predicts the amount and type of debris prior to a disaster, whereas debris estimating quantifies the amount of debris after the disaster. By forecasting the type and quantity of debris, a more defined scope of work for the debris management operation can be planned for prior to the event.

The following are general descriptions of natural and manmade disasters, and the associated debris caused by each:

Tornados – Damage from tornados is caused by high-velocity rotating winds; the severity of the damage depends on the velocity of the tornado funnel and the length of time the funnel is on the ground. Damage is generally confined to a narrow path, which can be upwards of a mile wide and potentially miles long. Tornado debris consists primarily of vegetative debris, construction materials from damaged or destroyed structures, and personal property. Tornados are a high-probability, high-vulnerability in Boone County.

Flash Flooding – Damage to structures from flooding is caused by precipitation inundation or high-velocity water flow. Flood debris may consist of sediment, wreckage, personal property, and sometimes hazardous materials deposited on public and private property. Additionally, heavy rains and floods may produce landslides, which create debris consisting of soil, gravel, rock and sometimes construction material. Flash flooding is a high-probability, high-vulnerability event.

River and Stream Flooding – The Missouri River runs along the southwestern border of Boone County. During years of heavy northern snow melt and excessive precipitation, the Missouri River basin threatens its banks and neighboring lands. Damage to structures located within the floodplain is likely. Flood debris may consist of high water, sediment, wreckage, personal property and sometimes hazardous materials deposited on public and private property.

Winter Storms – Debris from ice or snowstorms consists of significant amounts of vegetative debris and overhead utility service components. Winter storms are a high-probability, medium to high-vulnerability event locally.

Earthquakes – Seismic forces along fault lines generate shock waves that cause ground shaking and surface ruptures. Boone County lies northwest of the New Madrid seismic zone. Because of the location, Boone County could receive minor to moderate physical effects from an earthquake. Resulting property damage generate debris from structural building materials, concrete, and asphalt. This type of event is a medium-probability, high-vulnerability event.

Act of Terrorism – Terrorism includes the unlawful use of force and violence against persons or property to intimidate or coerce a government, the civilian population, or any segment thereof, in furtherance of political or social objectives. Since terrorism is regarded as a criminal act, it involves coordination with law enforcement authorities, the coroner's office, and health officials before debris is handled or moved. Debris generated as a result of an act of terrorism is highly variable in both quantity and type, depending upon the method utilized during these incidents. An act of terrorism could generate little to no debris at all, or could result in large quantities of multiple types of debris, potentially requiring highly specialized personnel, procedures, and equipment for its removal and disposal.

Forecasted Debris Types:

Vegetative debris - Consists of whole trees, tree stumps, tree branches, tree trunks, and other leafy material. The number of collection passes for vegetative debris is generally limited. Because of the large volume, vegetative debris should be reduced by mulching, grinding, or burning. Collections are typically based on the size of the vegetative material or by unit.

Hazardous Trees - Vegetative debris that is caused by the disaster and is an immediate threat to lives, public health, safety, or improved property, has a height of 4.5 feet, diameter of six inches or greater, and meets one or more of the following criteria:

- has more than 50% of the crown damaged or destroyed;
- has a split trunk or broken branches that expose the heartwood;
- has fallen or been uprooted within a public-use area;
- and/or is leaning at an angle greater than 30 degrees.

Trees determined to be hazardous and have less than 50% of the root-ball exposed will be cut flush at the ground level. This cut portion will then be included with regular vegetative debris. Grinding of the resulting stump after the tree has been cut is not eligible debris management work.

Straightening and bracing are allowable emergency protective measures if they eliminate an immediate threat to lives, public health, safety, or improved property, and are less costly than removal and disposal of the hazardous tree.

Hazardous Limb (Hangers) - A hanger is a hazardous limb that poses significant threat to the public. The current eligibility requirements for leaning trees per FEMA Publication 325 are:

- The limb is greater than two inches in diameter;
- The limb is still hanging in a tree and threatening a public-use area; and
- The limb is located on improved public property.

Only the minimum amount of work necessary is eligible for hazardous limb removal. Pruning, maintenance trimming, and landscaping are not eligible. If the canopy of a tree located on public property extends over a public right-of-way, removal of extending hazardous limbs is eligible.

Hazardous Stump – A stump is defined as hazardous and eligible for reimbursement if all the following criteria are met:

- The stump has 50% or more of the root-ball exposed;
- The stump is greater than 24 inches in diameter when measured 24 inches from the ground;
- The stump is located on a public right-of-way; and
- The stump poses an immediate threat to public health and safety.

Construction and Demolition Debris - FEMA Publication 325 defines construction and demolition (C&D) debris as damaged components of buildings and structures. This could include lumber and wood, gypsum wall board, glass, metal, roofing material, tile, carpeting and floor coverings, window coverings, plastic pipe, concrete, fully cured asphalt, heating, ventilation and air conditioning systems and their components, light fixtures, small consumer appliances, equipment, furnishings, and fixtures. Current eligibility criteria include:

- Debris must be located within the designated disaster area and be removed from an eligible applicant's improved right-of-way
- Debris removal must be the legal responsibility of the applicant; and
- Debris must be a result of the major disaster event.

Typically, removal of construction by-products generated by repairs or rebuilding is covered by insurance policies, and therefore is not part of the debris management process.

Hazardous Waste – Debris with properties that make it potentially harmful to human health or the environment. Generally, this type of material exhibits at least one of the following characteristics: ignitability, corrosively, reactivity, or toxicity. Debris management activities are allowed for measures that address widespread hazardous material contamination.

Household Hazardous Waste (HHW) – Debris composed of hazardous products and materials that are used and disposed of by residential, rather than commercial or industrial consumers. HHW includes some paints, stains, varnishes, solvents, pesticides, and other products or material containing volatile chemicals that catch fire, react, or explode under certain circumstances, or that are corrosive or toxic.

White Goods – Debris defined as discarded household appliances such as refrigerators, freezers, air conditioners, heat pumps, ovens, ranges, washing machines, clothes dryers, and water heaters. Many white goods contain ozone-depleting refrigerants, mercury, or other compressor oils, which are prohibited by the Clean Air Act of 1970 to be released into the atmosphere. Certified technicians must extract those refrigerants before disposing or recycling white goods.

Electronic Waste (E-Waste) – Debris composed of electronics that contain hazardous materials such as cathode ray tubes. Examples include computer monitors and televisions.

Soil and Mud – Floods often deposit soil and mud on improved public property and public rights-of-way. Facilities commonly impacted by this type of debris may include streets, sidewalks, storm and sanitary sewers, water treatment facilities, drainage basins, and swimming pools. This type of debris on improved property or public rights-of-way can be included in the debris management process; however, removal from streams and unimproved property cannot be included. Regularly scheduled maintenance reports for improved public property and public rights-of-way will be kept that indicate pre-disaster soil, mud, and sand levels.

Vehicles – Debris that includes vehicles that have been moved from private property onto improved public property and public rights-of-way. To remove this type of debris, the following characteristics must be met:

- The vehicle or vessel presents a hazard or immediate threat that blocks ingress/egress in a public use area;
- The vehicle is abandoned (e.g. the vehicle is not on the owner's property and the ownership is undetermined);
- The county follows local ordinances and state law by securing ownership; and
- The county verifies the chain of custody, transport, and disposal of the vehicle.

Putrescent Materials – Debris that will decompose or rot, such as animal carcasses and other fleshy organic matter. The USDA's National Resources Conservation Services (NRCS) has developed disposal guidelines specifically for animal carcasses. Refer to guidance in Appendix S: Federal and State Guidance.

Infectious Waste – Debris capable of causing infections to humans, including contaminated animal waste, human blood and blood products, isolation waste, pathological waste, and discarded sharps (needles, scalpels, or broken medical instruments).

Chemical, Biological, Radiological and Nuclear-Contaminated Debris – This type of debris usually results from a Weapon of Mass Destruction (WMD) event. Eligibility for this type of debris removal will

be made by FEMA based on applicable Federal statutes, regulations, policies, and other guidance documents.

Garbage (Household Waste) – Debris that is generated during non-disaster situations and regularly picked up through normal municipal waste collection methods. Common examples of garbage include food, packaging, plastics, and papers. This type of debris is not eligible for debris management activities.

Forecast Methods

The quantity and type of debris generated from a disaster will be a function of the location and kind of event experienced, as well as its magnitude, duration, and intensity. The quantity and type of debris generated, its location, and the size of the area over which it is dispersed will have a direct impact on the type of collection and disposal methods utilized to address the debris problem, associated costs incurred, and how quickly the problem can be addressed.

After the disaster parameters and geographic extent are established, debris volumes can be quantified by using historical information from the County, the National Weather Service (NWS) or by using forecasting models. If historical data is not available or insufficient, quantitative and qualitative forecasting models can be used to supplement the debris volume quantification.

Qualitative Forecasting – Will consist of “windshield tours” and “pass through” of the impacted portions of the unincorporated sections and associated municipalities of the County. These actions will note the location, vegetative cover, and estimated percentage of impacted area. These estimates will be the basis of the overall debris forecast. Another method is an aerial assessment by flying over the area using Missouri State Highway Patrol (MSHP) and/or National Guard (MoNG) helicopters and Civil Air Patrol (CAP) reconnaissance flights, or deployment of drone/unmanned aircraft. The damaged area can be assessed either visually or using aerial photography. Once the area has been assessed, actions can be taken to implement Emergency Debris Clearance and make requests for additional State or Federal assistance as needed.

Quantitative Forecasting – The information gathered as part of forecasting will be reported to Boone County’s Geographic Information System (GIS) which will establish the number of habitable structures in the review area, as well as land-use of noted properties. Based on this information estimates can be applied.

Buildings – Several basic techniques have been established to forecast destroyed building debris quantities. These techniques can be used to forecast debris quantities prior to an event, or to estimate quantities after an event.

- **Residential Buildings** – A formula for estimating the debris quantities from a demolished single-family home and associated debris is as follows:

$L \times W \times S \times 0.20 \times VCM = \text{___ cubic yards of debris (cy)}$

- L = Length of the building in feet
- W = Width of the building in feet
- S = Height of the building in stories
- VCM = Vegetative Cover Multiplier, always use Medium in the County as 1.3 as a variable.

The VCM is a measure of the amount of debris within a subdivision or neighborhood. The descriptions and multipliers are described as:

- Light (1.1 multiplier) includes new home developments where more ground is visible than trees. These areas will have sparse canopy cover.
- Medium (1.3 multiplier) generally has a uniform pattern of open space and tree canopy cover. This is the most common description for vegetative cover. Always use Medium in the County as 1.3 as a variable.
- Heavy (1.5 multiplier) is found in mature neighborhoods and woodlots where the ground or houses cannot be seen due to the tree canopy cover.

The table below can be used to forecast debris quantities for destroyed single-family, single-story homes in the applicable vegetative cover category.

Typical House Size	Vegetative Cover Multiplier (cy)			
	None	Light (1.1)	Medium (1.3)	Heavy (1.5)
1000 ft ²	220	220	260	300
1200 ft ²	240	264	312	360
1400 ft ²	280	308	364	420
1600 ft ²	320	352	416	480
1800 ft ²	360	396	468	540
2000 ft ²	400	440	520	600
2200 ft ²	440	484	572	660
2400 ft ²	480	528	624	720
2600 ft ²	520	572	676	780

The amount of personal property within an average flooded single-family home has been found to be:

- 25-40 cy for homes without a basement
- 45-50 cy for homes with a basement

Mobile homes have less utilized space due to their construction and use. The walls are narrower, and the units contain more storage space. Therefore, the typical mobile home generates more debris by volume than a single-family home. Historically, the volume of debris from mobile homes can be found to be:

- 290 cy of debris for a single-wide mobile home
- 415 cy of debris for a double-wide mobile home

Outbuildings – All other building volumes may be calculated by using the following formulas:

$(L \times W \times H \times 0.33)/27 = \text{cubic yards of debris}$

- L = Length of the building in feet
- W = Width of the building in feet
- H = Height of the building in feet
- 0.33 is a constant to account for the “air space” in the building
- 27 is the conversion factor from cubic feet to cubic yards

Vegetation – This type of debris is the most difficult to estimate due to the random sizes and shapes of trees and shrubbery. The following serves as a guide for forecasting and estimating vegetative debris:

- Each home is estimated to have an associated 3.65 cubic yards of this type of debris
- Treat debris piles as cubes, not a cone (when estimating)
- 15 trees, 8 inches in diameter = 40 cy (average)
- One acre of debris, 3.33 yards high = 16,117 cy

The following factors will be used to convert woody debris from cubic yards to tons:

- Softwoods: 6 cubic yards = 1 ton
- Hardwoods: 4 cubic yards = 1 ton
- Mixed debris: 4 cubic yards = 1 ton
- Construction & Demolition: 2 cubic yards = 1 ton

III. Staff Roles and Responsibilities

Per the Boone County Emergency Operations Plan (EOP), the Boone County Road and Bridge (BCRB) is responsible for coordinating debris removal and disposal in the unincorporated areas of the County. For the incorporated areas, the municipality is responsible for this coordination, with the County providing secondary support if needed and available. Debris removal operations for state and federal highways within Boone County will be the responsibility of the Missouri Department of Transportation (MoDOT). In emergency situations where limited local resources may require centralized coordination and prioritization, the Public Works and Engineering (ESF-3) in the Boone County Emergency Operations Center (EOC) will assume this responsibility.

The size and composition of a staff organized to manage debris clearance, removal, and disposal issues depends on the magnitude of the disaster and number of available response personnel. Successful

debris operations require collaborative efforts between departments within Boone County and with external agencies that have regulatory authority over debris operations. Prospective staff members will receive general training and practice interfacing with other agencies responsible for debris management operations.

Immediately following a disaster event, a debris management team will be established to facilitate successful coordination. Team members may consist of personnel from multiple jurisdictions and departments including road and bridge, purchasing, emergency management, GIS, zoning and codes, legal, clerks' offices, and/or other departments as applicable. A Debris Project Manager will be designated to serve as the primary coordinator for all operations.

The Debris Project Manager (DPM) – This position will serve as the primary decision maker and the Incident Commander (IC) for all debris operations and has the following responsibilities:

- Will be knowledgeable of all Boone County and municipal processes, procedures, personnel, resources, and limitations;
- Overall responsibility for the operations, planning, logistics, financial and administrative components of the debris management operations;
- Assign tasks to team members and support personnel and track the completion of tasks to ensure efficient and effective implementation of the debris removal process;
- Will be in constant contact with the Boone County EOC regarding the operational progress and planning needs; and
- Responsible for activation and deactivation of debris management operations.

Operations – This function is responsible for the supervision of account, contract resources, and overall project implementation. This section is responsible for implementing the entire debris removal operation and will perform the following tasks:

- Position equipment and resources for the response and recovery debris removal operation;
- Develop staff schedules and strategies to ensure the efficient and effective response;
- Establish and enforce safety procedures;
- Provide communication, facilities services, equipment, and materials to support the response and recovery activities;
- Monitor and direct Boone County personnel and contract labor;
- Coordinate distribution of resources;
- Operate and manage the collection, debris management site, and disposal strategies;
- Create a demolition strategy for publicly owned structures (if necessary); and
- Report progress for distribution to the debris management planning staff.

Planning – this section supports all other debris management sections in a technical and planning role. This section also provides debris quantity assumptions, economic analysis, and feasible solutions for debris operations. The following tasks will be performed:

- Forecast debris volume based on disaster type;

- Develop an estimating strategy for post-disaster quantities;
- Strategize and map debris haul routes;
- Select debris management sites and design the site layout;
- Determine reduction and recycling means and methods (if possible);
- Identify and coordinate environmental issues with solid waste authorities;
- Assess available landfill space and determine if additional space is needed;
- Develop the debris collection strategy;
- Coordinate with other local and state jurisdictions for road clearance and operations;
- Establish a process for building damage assessment and condemnation (including public and private properties).

Finance & Administration – This section typically includes finance, personnel, and legal issues. This section must establish a records management system in conjunction with the Planning Section to maintain all documentation required for Public Assistance grants.

Administration – This sub-function primarily documents all debris management activities, including but not limited to the following:

- Request and/or issue permits;
- Personnel policies;
- Labor and equipment timesheets and summaries;
- Billing and invoices (including debris hauler load tickets);
- Environmental permits;
- Rights of Entry and Hold Harmless agreements for private property debris removal and demolition (when applicable); and
- Debris salvage and recycling value information.

Contracting and Procurement – This sub-section manages, plans, organizes and directs purchasing operations for Boone County for all purchases over \$6,000 in a 90-day period. This involves the Purchasing Department coordinating with all offices for procurement of goods and services and ensures that the Boone County Purchasing Policy and Federal and State of Missouri regulations are observed.

Prior to a disaster requiring debris removal, the Purchasing Department will issue a Request for Bid or Proposal or identify cooperative contract(s) to create Term & Supply contract(s) with vendor(s) that are responsive and responsible to provide debris removal on an as needed basis.

Following a disaster requiring debris removal, the Purchasing Department will:

- Complete the Boone County *Request for Emergency Procurement* form.
- Identify the best method of procurement for full and open completion including use of an existing Boone County Term & Supply contract, issuing Request for Bid or Request for Proposal, and identifying cooperative contract. Emergency or sole source procurement may be utilized when appropriate.

- Prepare contracts and include the applicable contract clauses described in Appendix II to the Uniform Rules (Contract Provisions for non-Federal Entity Contracts Under Federal Awards), which are set forth in 2 C.F.R. §200.326 and 2 C.F.R Part §200, Appendix II

Legal – This sub-function leads the review process for all legal matters in the debris management planning process. The following tasks will also be performed by the legal unit:

- Review all contracts;
- Review and/or establish a land acquisition process for temporary debris management sites;
- Review all insurance policies;
- Ensure environmental and historic preservation compliance before, during, and after operations;
- Ensure that site restoration and closure requirements are fulfilled;
- Review and/or establish a building condemnation process if deemed necessary;
- Review and/or establish a legal process for private property demolition and debris removal; and
- Review right-of-entry and hold harmless agreements.

Public Information – This section will distribute information and educate citizens about debris management operations. This function will report directly to the DPM. Various message distribution methods will be used to disseminate information including, but not limited to the following:

- Debris pickup schedules;
- Disposal methods and ongoing actions to comply with federal, state, and local environmental regulations;
- Disposal procedures for self-help and independent contractors;
- Restrictions and penalties for creating illegal dumps;
- Curbside debris segregation instructions;
- Public drop-off locations for all debris types; and/or
- Process for answering the public's questions concerning debris removal.

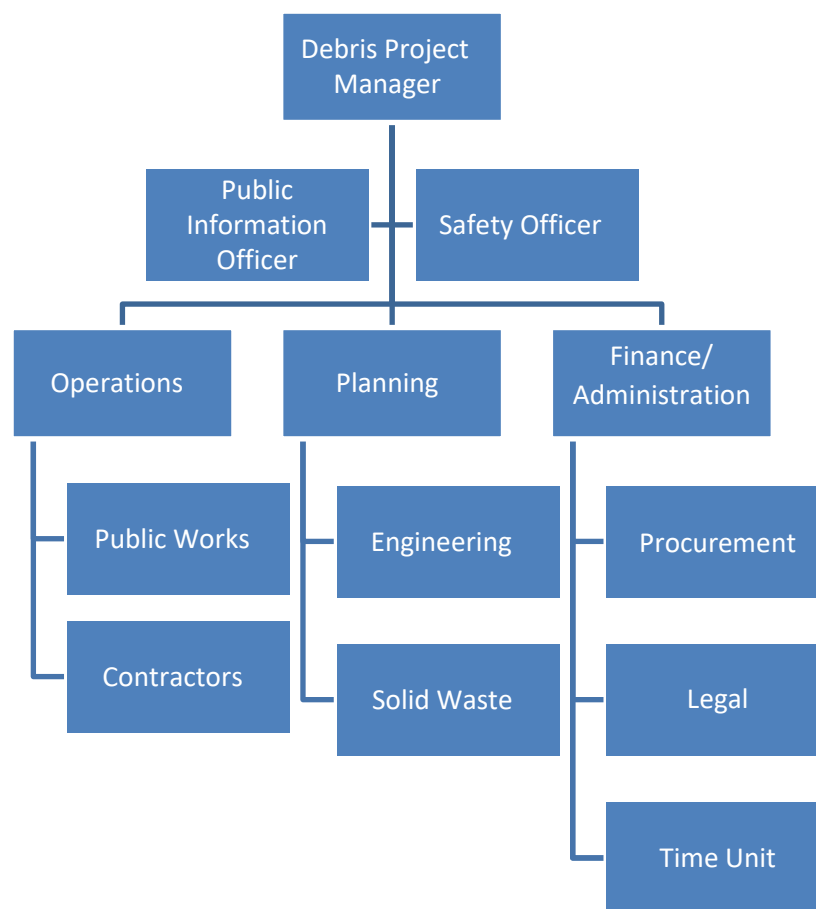
Operational Safety Officer - The DPM will also assign personnel to monitor and report on the safety of all debris management operations. The responsibilities of this position include the following:

- Communicating timely information to the DPM and EOC regarding the safety status of debris clearing, removal, and disposal operations;
- Coordinate with the DPM to assure the appropriate Responder Safety Training is provided;
- Ensure personnel follow all Missouri Department of Labor rules and regulations;
- Monitor contractor compliance with the Occupational Safety and Health Administration (OSHA) rules and regulations;
- Report and address any accidents or injuries that occur during operations;
- Coordinate with the DPM to assure that a site-specific Safety and Health Plan is created; and
- Provide media relations information regarding safety concerns with the DPM and acting public information officer.

Appendix: G Operational Safety Awareness & Regulations provides a detailed list of safety regulations and hazards that will impact debris management operations.

Support Staff - Support staff will be assigned as needed to functional and sub-functional areas to ensure efficient and effective response. Assignments and supervision will follow the Incident Command System (ICS).

Staff Organizational Chart - The following staff organizational chart is an example only. Each jurisdiction, and each incident, will present its own staffing needs. The idea of any organizational structure during disaster response or recovery is that it be scalable to meet the needs of the community. This chart, therefore, is only meant to be a suggestion of possible roles that may need to be filled during disaster debris operations.



Additional personnel can be assigned as needed and available to relieve these positions and/or to expand operations to meet growing debris management needs.

Training schedule - Each jurisdiction represented will be responsible for training personnel on this debris management plan in accordance with pre-established internal policies, along with cooperation between partnering agencies within the County.

Estimating Staff, Procedures, and Assignments - During debris removal events, local jurisdiction personnel will be the first workers utilized as directed by the DPM. Crew assignments will be based upon event needs and will be diverted from routine public works operations as necessary and where needed. Outside contractors may be utilized to assist the local workforce as needed.

IV. Debris Collection

The affected jurisdiction's Public Works Department is responsible for coordinating debris collection in keeping with Emergency Support Function-3 (ESF) of the EOP. This ESF will be activated at the discretion of the Boone County Office of Emergency Management (BCOEM). During periods of emergency, ESFs may or may not be activated depending on the resources needed to adequately manage the event. During disaster operations, the primary agencies will work directly with the Operations Chief for information management and reporting of ESF activities. To promote continuity of operations and planning, a representative for ESF-3 will be present in the EOC. The ESF representative will also act as a liaison between the EOC, adjacent county public works officials and the state.

Damage Assessment Teams (DAT) - The affected jurisdiction is responsible for coordinating impact assessment for all public structures, equipment, and debris clearance requirements immediately following a large-scale disaster. Impact assessments by Damage Assessment Teams (DAT) help prioritize impacted areas and resource needs. The teams will be composed of personnel from the affected jurisdiction.

DAT personnel identify debris impacts on critical roads and make initial estimates of debris quantities as part of their duties. Based on information provided by the DAT, the Debris Manager will set priorities and issue urgent assignments to clear debris from at least one lane on all evacuation routes and identified primary and secondary roads. This will expedite the movement of emergency service vehicles such as fire, police, and medical responders.

DAT personnel will conduct initial zone-by-zone windshield surveys to identify the type of debris and to estimate amounts of debris on the roadways and on private and public property. The results of these windshield surveys will be provided to the Debris Project Manager.

Response Operations - Boone County and local jurisdictions will use its own labor force and equipment to remove debris during this phase. In circumstances when the existing labor force is not sufficient, or when specialized services are needed, the County and local jurisdictions may supplement its work efforts by activating local or regional Mutual Aid Agreements (MAA) or by awarding short-term debris removal contracts for specific work.

Priorities - Response operations will primarily focus on the emergency access routes and main arterials within the County. Based on the incident, planning staff members will identify which roads and streets are essential to emergency operations so local resources can be optimally managed and directed. The Emergency Snow Routes are a good base point within cities with such designated routes.

Prior to and immediately following the event, extracting people and providing access to health care facilities are top priorities; therefore, the major arterial road routes are given priority for the emergency services staff such as police, fire, and ambulance services.

Overall priority to roadways will be determined by the event; however, specific considerations are as follows:

- Fire, police, and ambulance service routes to affected areas.
- Access routes to trauma centers, hospitals, critical care units, and jails.
- Major arterial routes.
- Roads and streets to the debris management center and EOC.
- Supply routes to emergency supply distribution centers.
- Roads and streets to government facilities.
- Communication towers and systems access.
- Utility access routes.
- Routes to shelters.

Eligible Debris - Eligible debris removal work must meet the following criteria:

- The debris was generated by the disaster event;
- The debris is located within the designated disaster area;
- The debris is located on County or jurisdiction's improved property or right-of-way;
- The debris removal is the legal responsibility of the County or included jurisdictions.

Ineligible Debris - The following are not eligible for debris removal work:

- Any debris on private property, without express approval from FEMA.
- Any debris removed from the County's improved property or undeveloped land;
- Any debris removed from a facility that is not eligible for funding under the Public Assistance Program (e.g. private owned cemeteries and golf courses); and
- Any debris removed from federal lands or facilities that are under the direct authority of federal agency or department.

Recovery Operations - These activities begin after the emergency access routes are cleared and the residents return to their homes and begin to bring debris to the public right-of-way. The implementation of disaster debris collection immediately after the disaster event assures the public that recovery efforts are in progress and that the community is returning to normal. The two main methods of debris collection are curbside collection and collection centers.

Curbside Collection – Debris is placed at the curb or public rights-of-way by the residents and collected by standard methods.

Mixed Debris Collection – This method allows all debris types to be collected in one specified area, usually along the public right-of-way or in front of individual residences. This method is convenient for the public but does not facilitate effective recycling and reduction efforts as debris will need to be handled multiple times. *Therefore, this method will likely not be used in Boone County.*

Source-Segregated Debris Collection – This method requires residents to sort the debris by material type and place it at the curb in separate piles. Trucks designated for a specific debris type collect the assigned debris and deliver it to a temporary staging area, or debris management site, reduction, recycling or disposal facility. This method requires more trucks to collect the different types of debris; however, the increased equipment costs is offset by avoiding labor costs and time to separate the debris by hand (as per mixed debris collection). This method offers the potential of high salvage value and efficient recycling/reduction processing.

Collection Centers - This type of collection method directs residents to transport their debris to a common location where roll-off bins or dumpsters are located. Associated costs are generally low since the public essentially accomplishes the material collection and separation themselves; however, site monitoring is required to ensure debris cross-contamination does not occur. Although potentially effective, collection centers near debris management sites may inadvertently create a safety risk to debris management workers and the community-at-large. Therefore, collection centers will be established after initial curbside collection is completed to ensure the removal of remaining debris within the community and ensure the safety of the public.

Collecting Hazardous Waste and White Goods - The three most common debris types requiring special handling are hazardous waste, white goods, and electronic waste.

Household Hazardous Waste (HHW) - HHW mixed with other debris types will contaminate the entire load, which necessitates special disposal methods such as storage in a area of the debris management site. This type of debris is mitigated through a dedicated hazardous waste collection site. Local jurisdictions will coordinate a drop off and segregation of these materials at a temporary debris management site until final disposition can be arranged.

Electronic Waste (E-waste) - E-waste consists of any broken or damaged piece of electronic equipment. Categories include communications equipment, computer equipment, television and video equipment, electronic tools, lighting, medical equipment, etc. These materials will be collected by resident drop off at a temporary debris management site until final disposition can be arranged. E-waste can also be collected at the City of Columbia Landfill as addressed in Appendix N.

Hazardous Stump Removal - A hazardous tree or stump may be collected individually, while downed or fallen debris is collected from right-of-way's or at a designated collection center. Tree and stump collection prices are typically based on the size of the tree or stump and charged by unit. Determining whether to remove a hazardous stump is difficult. FEMA has established criteria to assist in making

these eligibility determinations, using objective information that can be collected in the field. A stump may be considered hazardous if the following criteria are met:

- 50% or more of the root-ball is exposed (less than 50% will be flush cut)
- Greater than 24" in diameter (as measured 24" above the ground)
- On improved property
- Poses immediate threat to life, public health, and safety

FEMA's Hazardous Stump Worksheet and Stump Conversion Table are included in Appendix A and B, respectively.

Putrescent Waste Removal - Putrescent materials such as dead animals will not be shipped to temporary landfill operations. The Missouri Department of Natural Resources will be contacted to determine the most effective method of disposal. If on-site burial is considered Boone County Planning and Zoning, Missouri Department of Natural Resources, Missouri Department of Agriculture, and Missouri Department of Conservation would need to be notified of such actions (Appendix S).

Recycling of Debris - Recycling reduces debris volume before it is hauled to a landfill. Recycling should be considered early in the debris removal and disposal operation because it may present an opportunity to reduce the overall cost of the operation. Precautions should be taken to minimize potential environmental impact of the recycling operation. Tornadoes may present opportunities for large-scale recycling operations. Some communities have structured contracts whereby the vendor can achieve an economic return by segregating and recycling debris as it arrives at the staging and reduction sites. Such contracts must be properly written and closely monitored. Specialized contractors may be available to bid on disposal of debris by recycling if it is well sorted. Contracts and monitoring procedures should be developed to ensure that recyclers comply with local, state, and federal environmental regulations. The following materials are suitable for recycling:

- Metals - Tornadoes and windstorms may cause extensive damage to mobile homes, sun porches, barns and out buildings. Most of the materials are non-ferrous and suitable for recycling. Metals can be separated using electromagnets. Separated materials have market value.
- Soil - Soil can be picked up and transported to staging and reduction sites where it is combined with organic materials that will decompose over time. Large amounts of soil can be recovered if the material is put through some type of screen or shaker system. This procedure can produce significant amounts of solid that may have beneficial reuse options in the agricultural community. This soil could also be used at the landfill for cover. Monitoring and testing of the soil may be necessary to ensure that it is not contaminated with chemicals. In areas where there is a large use of chemical agricultural fertilizer, the recovered soil may be too contaminated for use on residential or existing agricultural land.
- Wood - Woody debris can either be ground or chipped into mulch, which may have beneficial reuse options.

- Construction Material - Concrete block and other building materials can be ground for other purposes if there is a ready market. Construction materials and wood can also be shredded to reduce volume. This construction material may be usable as fill or landfill cover.
- Household Hazardous Waste - Some HHW can be separated for reuse or recycling. The Columbia Public Works Solid Waste Division and the City of Columbia Household Hazardous Waste Collection facility can assist Boone County jurisdictions with identifying opportunities.
- Vehicles - Disaster generated motor vehicle debris may be hauled to a staging area using the County's wrecker contacts and Private Industry Council Procurement (PIC) workers. Unclaimed vehicles may be processed for salvage.
- Electronic Waste - Electronic waste has recyclable components and may be segregated at the debris site.

V. Debris Management Sites

Depending on the type of disaster debris and scale of the event, Boone County has identified (number of contractors/locations/companies) potential options for debris removal:

1. For trees only
2. Construction and demolition debris
3. Household hazardous waste

In situations where the amount of debris is wide spread throughout the County, Temporary Debris Management Sites (DMS) may be deemed necessary and will be opened. The DMS location would temporarily store, reduce, segregate, and/or process debris before it is hauled to its final disposition. The County will prioritize site locations based on safety, resources, and practicality of location. The property in terms of general types of locations will be as follows: public paved property, public unpaved property, private property, and private unpaved property. A map of potential temporary DMS is included in Appendix N.

A temporary DMS site review ensures the following:

- Does not exist in an environmentally or historically sensitive area such as critical animal and plant habitats, sole source aquifers, freshwater well fields, historic districts, or archeological sites.
- Does not exist in Superfund site or area within 100-year floodplain.

Environmental Requirements - A baseline environmental collection study will also be conducted prior to a DMA establishment. This baseline data is essential in assuring that the land is returned to its original condition following the end of all debris management operations. The following methods may be used to document new or updated baseline data:

- Videotape and/or Photograph the Site – Thoroughly videotape and/or photograph (ground or areal) each site before beginning any activities.
- Document Physical Features – Note existing structures, fences, culverts, irrigation systems, and landscaping that can help evaluate possible damage claims made later.
- Investment of the Historical Significance – Research the past use and ownership of the property to document any issues regarding the existence of historic structures or archeological sites.
- Sample Soil and water – Soil and groundwater samples will be collected prior to use of the site. Planned HHW, ash, and fuel storage areas will also be sampled prior to site setup.

As operations proceed, additional data will be collected throughout the operation for closeout and quality assurance reasons. The data can be compared to previously documented baseline information to determine any necessary actions. The following tools can be utilized.

- Sketch Site Operational Layout – DMS operations may grow, shrink, or shift on the site. It is important to track reduction, hazardous waste collection, fuel, and equipment storage in order to assess soil and water for contaminants.
- Document Quality Assurance Issues – Document operations that will have a bearing on site closeout, such as petroleum spills at fueling sites, hydraulic fluid spills at equipment breakdowns, installation of water wells for stock pile cooling or dust control, discovery of HHW, and commercial, agricultural, or industrial hazardous and toxic waste storage and disposal.
- Restoration of Site – Final restoration of the landscape must be acceptable to the landowner, but within reasonable expectations. Therefore, the restoration of the landscape will be planned for as early as possible during debris management operations.

The objectives for collection site operations is to provide a safe and efficient use of the location throughout the event, and to protect the site and surrounding area from negative environmental impacts. It is the responsibility of all the stakeholders involved in debris management to meet these objectives.

Permits - Environmental permits and land-use agreements may be required to establish a temporary DMS. Several agencies may be involved in issuing permits and granting land-use approvals. The need for these permits may be satisfied by changes established in a declared disaster in Boone County. Potential necessary permits may include the following:

- Waste processing and recycling operations permit
- Temporary land-use permits
- Land-use variances
- Traffic circulation strategies
- Air quality permits
- Water quality permits
- HHW permits

- Fire department burn permits

Agencies involved in issuing permits and granting land-use approvals includes, but is not limited to, the following:

- Columbia/Boone County Health Department
- Boone County Planning Department
- Boone County Zoning and Codes Department
- Missouri Department of Natural Resources
- Missouri Department of Agriculture

Site Design and Preparation - The topography and soil/substrate conditions will be evaluated to determine the best site layout. When planning site preparation, the designer will consider ways to make site closure and restoration easier. For example, if the soil is very thick, the topsoil can be scraped to bedrock and stockpiled in perimeter berms. Upon site closeout, the uncontaminated soil can be re-spread to preserve integrity of the tillable soils.

Operational Boundaries - These boundaries or areas clearly define the difference in use areas at the DMS. Earthen berms, temporary barriers, or any other physical restriction may be used to aid in traffic circulation and the minimization of debris at the DMS. Common operational areas include the following:

- Reduction
- Recycling
- Tipping areas (unloading) tipping fees may be waved for County residents.
- Loading areas for processed debris to go to its final destination
- Drop-off centers for the public (this may include vegetative, recycling, or construction and demolition debris)
- HHW storage
- Monitoring tower locations at both the ingress and egress points
- Equipment, fuel, and water storage

The reduction, recycling, tipping and loading areas need ample room for large equipment operations. Depending on the scale of the operations, each debris stream may and should have its own tipping area. Public drop-off areas for recycling of construction and demolition debris may be included with the DMS but will be carefully designed for passenger vehicle traffic and public safety. The HHW storage will be close to the public drop-off center yet restricted so that qualified personnel may process the waste appropriately.

Monitoring towers will be located at ingress and egress points and will be constructed of durable structural materials. The structures will be designed to withstand active and static loads. A stepladder is not an acceptable monitoring tool.

Equipment and fuel, if necessary, will have a designated storage area and signs posted appropriately. The fuel storage areas must be designed to contain spills. Every effort will be made to have water

readily available. Water storage areas will be strategically positioned throughout the site and identified appropriately. Water storage may come as a tender truck from a fire department or the local entity overseeing the DMS. Appendix C contains a sample DMS layout with operational boundaries.

Traffic Patterns - Traffic circulation must be well defined throughout the site. Although traffic signs and barricades aid in directing traffic, flag directors and law enforcement personnel may need to be on site to direct traffic.

Site Management - Management of the DMS will be under the control of local jurisdiction personnel in incorporated areas or BCRB in unincorporated parts of the county to ensure operational efficiency and to meet strategic goals.

Site Manager - This position is responsible for supervising the overall day-to-day operations, maintaining daily logs, preparing site progress reports, and enforcing safety and permitting requirements during site operations. Furthermore, the site manager has oversight for monitoring the activities of the debris removal contractors and onsite debris processing contractors to ensure they comply with contract terms. The site manager is also responsible for site security and traffic control. These functions can be delegated to assigned personnel if appropriate and available.

Debris Monitors - Operational monitors will be placed at ingress and egress points to quantify debris loads, issue load tickets, inspect and validate truck capacities, check loads for hazardous waste, and perform quality control checks.

Safety Personnel - Safety personnel are responsible for traffic control and ensuring that site operations comply with federal and state occupational safety regulations.

Safety

Equipment Safety - Equipment operators will be given work procedures, practices, and requirements of the work site, including the recognition, prevention, and control of general safety and health hazards prior to using the equipment. Guidelines for equipment will follow manufacturer's instructions for safe operation. All safety equipment installed on debris management equipment must be operational and must be used as directed. No safety features will be disabled or removed during the use of any debris management equipment. All equipment will be inspected daily prior to start of operations.

Personal Protective Equipment (PPE) - All PPE must be checked before each use for serviceability. PPE that may be necessary includes, but is not limited to the following:

- Eye protection with side shields
- Cut resistant leather work gloves or chemical protective gloves
- Respiratory protection
- Protective footwear
- Hard hat or prescribed head protection equipment
- Personal fall arrest system including harnesses, lanyards, lifelines, connectors, and anchor

- High visibility safety apparel
- Hearing protection
- Leg protection for chainsaw use
- Other incident-specific PPE will be requested through the EOC based on guidelines from Missouri safety commission and other regulatory agencies.

Barricades should be in place to prohibit the intrusion of foot traffic in a cleanup area where equipment is in use. Weather appropriate clothing as well as protective shelter from the environment should also be provided. Proper lifting techniques should be used in all situations.

Safety Regulations - Boone County and local jurisdiction personnel are subject to the rules and regulations of the Missouri Department of Labor, while contracted personnel are subject to OSHA regulations. However, since these regulations are often tied together, the following lists of regulations will be considered before, during, and after all debris management activities.

- 29 CFR 1910.1200 (HazCom)
- 29 CFR 1910.120 (Hazwoper)
- 29 CFR 1910.134 (Respiratory Protection)
- 29 CFR 1910.146 (Confined Spaces)
- 29 CFR 1910.1030 (Bloodborne Pathogens)
- 29 CFR 1926.20-35 (General Construction)
- 29 CFR 1910.23 (Fall Protection)
- 29 CFR 1915.159 (Fall Arrest Equipment)
- 29 CFR 1910.132 (Personal Protective Equipment)
- 29 CFR 1910.137 (Electrical Safety)
- 29 CFR 1910.332 (Electrical Safety)
- 29 CFR 1910.147 (Lockout/Tagout)
- All other local, state, and federal regulations

Health Concerns - Exposure to potentially hazardous conditions may require immunization and/or monitoring from public health experts. Specific considerations include tetanus, hepatitis A, or other vaccines, as recommended by Columbia/Boone County Health Department.

Site Security - The Boone County Sheriff's Department will be responsible for coordinating site security for debris management sites in the unincorporated portions of the county. Site security for debris sites falling within local jurisdictional boundaries will be coordinated by each jurisdiction's local law enforcement entities. Options for security include, but are not limited to: 24-hour law enforcement presence in the form of a static post; security during working hours only, followed by periodic routine checks during non-working hours; or on an as-needed basis only. The affected jurisdiction will provide a liaison to coordinate with the Site Manager over any security related issues.

Monitoring Debris Removal - The purpose of monitoring debris removal is to (1) verify that the work completed by the contractor is within the scope of work of the contract and (2) documentation is provided to ensure operations have met all local, state and federal laws, regulations, and guidelines.

Debris Monitoring Duties - Debris monitors will minimally perform the following roles:

- Measure and certify truck capacities (recertify on a regular basis);
- Complete and physically control load tickets (in monitoring towers and the field);
- Validate hazardous trees, including hangers, leaners, and stumps (use appropriate documentation forms);
- Ensure that trucks are accurately credited for their loads;
- Ensure that trucks are not artificially loaded to maximize reimbursement (i.e., debris is wetted, debris is not compacted, etc.);
- Ensure that hazardous waste is not mixed with loads;
- Ensure that all debris is removed from the trucks at the DMS;
- Report to project manager:
 - Mobilization and use of improper equipment.
 - Contractor personnel safety standards are not followed.
 - Public safety standards are not followed.
 - Completion schedules are not on target.
 - Debris removal work does not comply with all local, state, and federal ordinances and regulations.
- Ensure that only debris specified in the scope of work is collected and identify work as potentially eligible or ineligible;
- Monitor site development and restoration of DMS;
- Ensure daily loads meet permit requirements; and ensure that work stops immediately in an area where human remains or potential archeological deposits are discovered;
- Ensure the route to the DMS is free of debris that may have fallen off trucks while hauling to the site.

Debris Monitoring Methods - Additional documentation requirements depend on how the debris is collected and processed. The following methods and systems may be used to monitor and document the work completed by Boone County resources and/or contractors.

Debris Monitoring Reports – This type of report is important for time-and-materials contracts that may be used during the response phase of the operations. Monitoring documentation for time-and-materials contracts includes:

- Actual labor hours worked
- Actual equipment hours operated
- Type and specification of equipment used

Truck Certification Form – This type of report allows the monitor to identify the truck itself and its hauling capacity in a standardized manner. The standardized list of requirements includes:

- Size of hauling bed in cubic yards
- License plate number
- Truck identification number assigned by the owner
- Short physical description of the truck

Recertification of the hauling trucks on a random and periodic basis will be implemented for contract compliance and reimbursement considerations. Appendix O contains a sample truck certification form.

Load Ticket System – The term “load ticket” refers to the primary debris-tracking document. A load ticket system tracks the debris from the original collection point to the DMS or landfill. By positioning debris monitors at each point of the operations (collection, DMS, and/or final disposition), the eligible scope of work can be properly documented. Each monitor keeps a copy of the load ticket and the driver/contractor keeps two copies for billing purposes. Appendix M includes a copy of the load ticket that may be used by County personnel during debris management. Each load ticket will be printed as a five-part form with the following jurisdiction origin numbering system:

Jurisdiction	Numbering Code
Boone County	BC
Columbia	CO
Ashland	AS
Centralia	CE
Sturgeon	ST
Hallsville	HA
Harrisburg	HR
Hartsburg	HB
Rocheport	RO
McBaine	MB
Huntsdale	HU
University of Missouri	MU

Part 1 (White) Load Site Monitor (turned in daily to the DMC)

Part 2 (Green) Disposal Site Monitor (turned in daily to the DMC)

Part 3 (Blue) Driver or Contractor’s on-site representative (Contractor Copy)

Part 4 (Pink) Driver or Contractor’s on-site representative (Contractor Copy)

Part 5 (Gold) Driver or Contractor’s on-site representative (Driver/Subcontractor Copy)

Monitoring Tips - Contractors must always be monitored closely to ensure compliance with the scope of work. Appendix K includes information that address common types of contractor abuse.

Methods of Material Reduction - There are three main types of reduction methods to consider and use during debris management operations; incineration, chipping/grinding, and recycling. The type(s) used will be based on operational goals, site availability, and personnel availability.

Incineration – Burning vegetative debris is a very common reduction method because it has up to 95% reduction rate. The incineration process requires a minimum of three steps, to include:

- Unloading the debris
- Moving the debris into an incinerator
- Removing the ash from the incinerator to final disposition, which may be an appropriately constructed area at the DMS or landfill

There are several incineration methods available for volume reduction.

Uncontrolled Open-Air Incineration - This method reduces debris with no control over how much or how quickly it is allowed to burn. The use of this type of reduction will be limited due to its lack of environmental control.

Controlled Open-Air incineration – This method reduces vegetative debris by burning debris within a contained fixed area. This reduction can be used freely because it presents little environmental damage and is cost-effective.

Air Curtain Pit Incineration – This method effectively expedites the volume reduction process while substantially reducing the environmental concerns caused by open-air incineration. Specifically, this type of reduction uses a pit construction by digging below grade or building above grade and using a blower unit. The burning chamber is usually no more than 8 feet wide and 9-14 feet deep.

Portable Air Curtain Incinerators – This method uses the same concept as air curtain incinerators, except this method utilizes pre-manufactured pits rather than onsite constructed earthen pits. These types of incinerators are the most efficient because they have been pre-engineered to precise dimensions to complement the blower system.

Setbacks and buffer zones must be established within and around the reduction sites not only for the public safety, but also for the safety of debris operations. A setback of at least 100 feet will be maintained between the debris piles and the incineration area. Moreover, a buffer zone will be established between the incineration area and the nearest building to create room for emergency vehicles to maneuver, ideally of at least 1,000 feet. All burning operations are subject to environmental regulations set forth in state and federal regulations.

Chipping/Grinding – This method calls for the vegetative debris to be chipped or ground. This method reduces volume by 75%. Because of the remaining volume, the benefit of this reduction method is increased by identifying alternate use of residual material such as recycled wood chips used for agricultural purposes or for fuel for industrial heating. Plastics will be eliminated completely from debris prior to performing this method.

Recycling – This method captures pre-identified types of debris materials for recycling and/or reuse. The City of Columbia has the capability to recycle metals such as aluminum, tin, and various scrap metals. Private recyclers are utilized by the City of Columbia to ship and dispose of various scrap materials. Private recyclers are available in the County for residential-type recycling, e-waste, and household hazardous waste. The County does not have a construction and demolition debris recycling program.

Site Closure

When the site operations are complete, the property must be restored to its original condition before returning the site to the property owner. This restoration includes the removal of all traces of operations and possible remediation of any contamination that may have taken place during the operations. The site, whether owned or leased by the jurisdiction, must be brought as close as possible back to its previous environmental state.

The final environmental site evaluation is an extension of the environmental monitoring program. Similar testing as completed in the baseline study will be conducted to confirm that the site has been returned to its pre-activity state. Test samples will be taken at the same locations as those of the initial assessment and monitoring program. Based on the results of the testing, additional remediation may be required.

All operational documentation will be collected and organized then submitted to BCOEM for review. If needed, these documents will be incorporated into disaster reimbursement request per pre-determined processes established by county policy.

VI. Contracted Services

It may be necessary to contract for debris removal services if the magnitude of the disaster is beyond the capabilities of local jurisdictions, Boone County, mutual aid agreements, and volunteer labor. The County jurisdictions will follow the Board of the County's Commissioners Resolution or City's Ordinance for all emergency procurement rules, regulations, limitations, and exceptions as outlined in 2 CRF Part 200.

Type of Contract - If additional contracted labor is needed during debris management operations, additional contracts may need to be instituted. The following list of contract types may be instituted per County procurement policies.

Lump Sum – Work within a prescribed boundary with a clearly defined scope (including finite timeframe) and a total price. There are two common uses of the lump sum contract which are as follows:

Area Method – This technique defines the geographical boundary in which the debris is to be collected. By providing geographical boundaries, the quantity of debris may be forecasted or estimated based on topography and land use.

Pass Method – This technique describes the number of times debris will be collected from the curbside within a geographical boundary. Limiting the number of passes for an area keeps the scope of work known.

The advantage of lump sum contract is that the total price for the specified work is known at the time the bids are opened. Appendix E summarizes the lump sum structure, provisions, advantages, disadvantages monitoring and documentation.

Unit Price – Work done on an item-by-item basis with costs determined per unit. The quantities of work to be completed are estimated by the County and included in the bid solicitation process. The estimated quantity of work described in the bid solicitation can be adjusted to reflect a more accurate quantity when debris operations are under way and the true extent of the disaster is realized. Appendix D summarizes the unit price structure, provisions, advantages, disadvantages, monitoring, and documentation.

Time and Materials – Contractor bills the local jurisdiction for labor, equipment, materials, and overhead. This type of contract is used when the scope of work necessary to achieve an outcome is unknown. Moreover, this type of contract establishes hourly rates for labor and equipment that will be used to perform specific tasks. Solicitation for a time and material contract will include descriptions of the type of work item that would be required for debris removal, debris processing, and recycling.

General Contract Provisions -To protect the interests of the County of the contracting jurisdictions, specific items will be included in the contract to minimize potential conflicts with the contractor. These items include the following:

- *Basis of payment* – Basis of payment is usually based on the volume and/or weight of the contractor's loads.
- *Duration of the contract* – To ensure that debris removal is conducted expeditiously, the contract will include specific timelines for work to be completed.
- *Performance measures* – The jurisdiction will implement progress payments for services as specific performance tasks are met and documented.
- *Agreement to restore collateral damage* – A contract provision will include a requirement that the contractor is to restore and/or repair (at the contractor's cost) all damaged infrastructure back to pre-existing conditions if the damage was caused by their activities.
- *Termination for convenience* – This clause allows the County the ability to unilaterally terminate the contract at any time or without giving any reason.
- *Conflict resolution process* – This contract provision will include alternatives for mediation should an issue prove difficult to solve.

Contracted Scope of Work - Will reference one of the following:

- Eligible Work.
- Work eligible under FEMA Public Assistance regulations, policies, and guidance.
- Work performed on public property and/or public rights-of-way.

Units of work must be viewed uniformly to prevent work on one piece of debris on multiple occasions (ex: removing a leaning portion and the cutting of the stump to the ground cannot be two separate unit costs).

Contracted Limitations & Misconceptions

- Avoid “piggyback contracts” with neighboring jurisdictions
- Use caution with shared contracts
- Cost plus percentage of cost contracts will not be used
- Avoid contracts with any phrase that implies, insinuates, or otherwise uses phrases that indicate FEMA pre-approval

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- Emergency repairs and/or purchases. The County Commissioner and/or Presiding Commissioner shall have the authority to authorize emergency repairs and/or purchases without the solicitation of bids/proposals. Emergency purchases made by the County shall follow the Emergency Procurement Policy located in Appendix T.
- Declared Emergency Situation. The County Commissioner and his/her designee may make or authorize others to make emergency purchases without monetary limit when there exists a threat to public health, welfare, or safety under declared emergency conditions. Prior to authorization, approval must be received from the Presiding County Commissioner or another designee. Where possible, such competition as is practical under the circumstance shall be attempted.

Pre-qualified Contactors - Jurisdictions within the County worked together to develop a list of potential contractors and vendors in the event of a disaster. For additional information, see Appendix U: Existing Emergency Contracts. The lists were obtained using the respective jurisdiction’s procurement policies and by the previous contract work with the company.

VII. Private Property Demolition and Debris Removal

As stated elsewhere in this plan, it is the intention of the County to collect debris located and/or placed in curbside rights-of-way. County staff, contractors or other representatives will not enter onto private property to collect such debris. If the salvage is not abated and/or debris is not removed and such conditions are deemed to constitute a dangerous, health or nuisance condition, necessary authority will be provided by the County Commissioners.

If deemed appropriate due to the scope of the disaster and/or debris generated by such a disaster, the County Commission along with the city officials may take additional formal executive action to authorize collection of debris on private property provided such authorization ensures that the applicable property owner(s) execute a waiver or release of liability developed by the County in coordination with FEMA or other applicable State and Federal agencies.

Prior to any removal of debris from the private property, the following documentation will be sent to FEMA's Federal Coordinating Officer (FCO):

- Documentation confirming the existence of an immediate threat on public property (44 CFR 206.224(a));
 - Immediate threat to life, public health, and/or safety
 - Immediate threat to improved property determination
 - Removal will expedite economic recovery of the jurisdiction
- Documentation of the legal authority to enter that property (44 CFR 206.223(a)(3);
- Documentation that a legally authorized official has ordered the exercise of public authority to enter private property to perform debris removal (44 CFR 206.223(a)(3); and
- Indemnification for the Federal government and its employees, agents, and contractors from any claims arising from the removal of debris (44 CFR 206.39).

The FCO will approve or disapprove in writing the jurisdiction's request. If approval is granted, debris can begin with the pre-determined scope of work; however, the following documents will be created during debris management operations:

- *Right-of-entry* – This document must be signed by the property owner and will include a hold harmless agreement and indemnification applicable to the project's scope-of-work on the private property.
- *Physical Documentation* – Photos will be taken to show the condition of the property prior to the beginning of the work. Pictures will document the address and scope-of-work on the private property.
- *Private Property Debris Removal (PPDR) Assessment* – A property specific assessment will be created to establish the scope of eligible work. The PPDR can be a map or other documentation system that serves as a guide indicating the location of the eligible items of work that present an immediate threat relative to the improved property or rights-of way.
- *Documentation of Environmental and Historic Review* – Documents environmental and historical preservation compliance as established in 44 DFR Parts 9 and 10 as well as any relevant Missouri or County resolution, statute, or ordinance.

Additional documentation may be required by the FCO on a case-by-case basis to demonstrate that the proposed work is in compliance with all federal, state, and local laws and regulations.

VIII. Public Information Plan

Distribution Strategy - Public information related to debris management will be submitted to the public in as many ways as possible. Although there will be an operational public information officer (PIO) designated by the Debris Project Manager, this position will work in cooperation with the County PIO to facilitate the distribution of public information.

IX. Plan Maintenance

As a support annex to the EOP, this Plan will be reviewed on an annual basis for necessary changes or additions to continue to meet operational and legal requirements.

X. Acronyms

2 CFR	Title 2 of the Code of Federal Regulations
29 CFR	Title 29 of the Code of Federal Regulations
44 CFR	Title 44 of the Code of Federal Regulations
BCRB	Boone County Road and Bridge
BCOEM	Boone County Office of Emergency Management
BCSD	Boone County Sheriff's Department
CAP	Civil Air Patrol
CBCPHHS	Columbia/Boone County Public Health and Human Services
CFR	Code of Federal Regulations
C&D	Construction and Demolition Debris
County	County of Boone
DAT	Damage Assessment Team
DMS	Debris Management Site
DPM	Debris Project Manager
E-Waste	Electronic Waste
EOC	Emergency Operations Center
EOP	Emergency Operations Plan
ESF	Emergency Support Function
FCO	Federal Coordinating Officer
FEMA	Federal Emergency Management Agency
FEMA 325	Debris Management Guide – FEMA Publications 325
GIS	Geographic Information System
H	Height of building in feet
HHW	Household Hazardous Waste
IC	Incident Commander
ICS	Incident Command System
L	Length of building in feet
MAA	Mutual Aid Agreement
MoDNR	Missouri Department of Natural Resources
MoDOT	Missouri Department of Transportation
MoNG	Missouri National Guard
MSHP	Missouri State Highway Patrol
NRCS	National Resource Conservation Service
NWS	National Weather Service
OSHA	Occupational Safety and Health Administration

PIC	Private Industry Council
PIO	Public Information Officer
PPDR	Private Property Debris Removal
PPE	Personal Protective Equipment
S	Height of building in stories
SOG	Standard Operating Guideline
TDMS	Temporary Debris Management Site
USACE	United States Army Corp of Engineers
USDA	United States Department of Agriculture
VCM	Vegetative Cover Multiplier
W	Width of building in feet
WMD	Weapons of Mass Destruction

XI. Appendices

Appendix A: Hazardous Stump Worksheet

Appendix B: Stump Conversion Table

Appendix C: Sample Debris Management Sites

Appendix D: Unit Price Contract Summary Matrix

Appendix E: Lump Sum Contract Summary Matrix

Appendix F: Time and Materials Contract Summary Matrix

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Appendix R: Debris Site Selection Worksheet

Appendix S: Federal and State Guidance

Appendix T: Emergency Procurement Policy

Appendix U: Existing Emergency Contracts

Appendix A: Hazardous Stump Worksheet

Appendix A: Hazardous Stump Worksheet

Hazardous Stump Worksheet

Applicant: _____ Date: _____
 Applicant Representative: _____ Signature: _____
 FEMA Representative (if available): _____ Signature: _____
 State Representative (if available): _____ Signature: _____

	Physical Location (i.e., Street address, road, cross streets, etc.)	Description of Facility (ROW, Park, City Hall, etc.)	Hazard		GPS (decimal degrees,		Tree Size (Diameter)	Eligible		Fill For Debris Stumps	Comments (See attached sketch, photo, etc.)
			Yes	No	Latitude (N)	Longitude (W)		Yes	No		
1											
2											
3											
4											
5											
6											
7											
8											
9											
10											

Appendix B: Stump Conversion Table

Stump Conversion Table

Diameter to Volume Capacity

The quantification of the cubic yards of debris for each size of stump in the following table was derived from FEMA field studies conducted throughout the State of Florida during the debris removal operations following Hurricanes Charley, Frances, Ivan and Jeanne. The following formula is used to derive cubic yards:

$$\frac{[(\text{Stump Diameter}^2 \times 0.7854) \times \text{Stump Length}] + [(\text{Root Ball Diameter}^2 \times 0.7854) \times \text{Root Ball Height}]}{46656}$$

0.7854 is one-fourth Pi and is a constant.

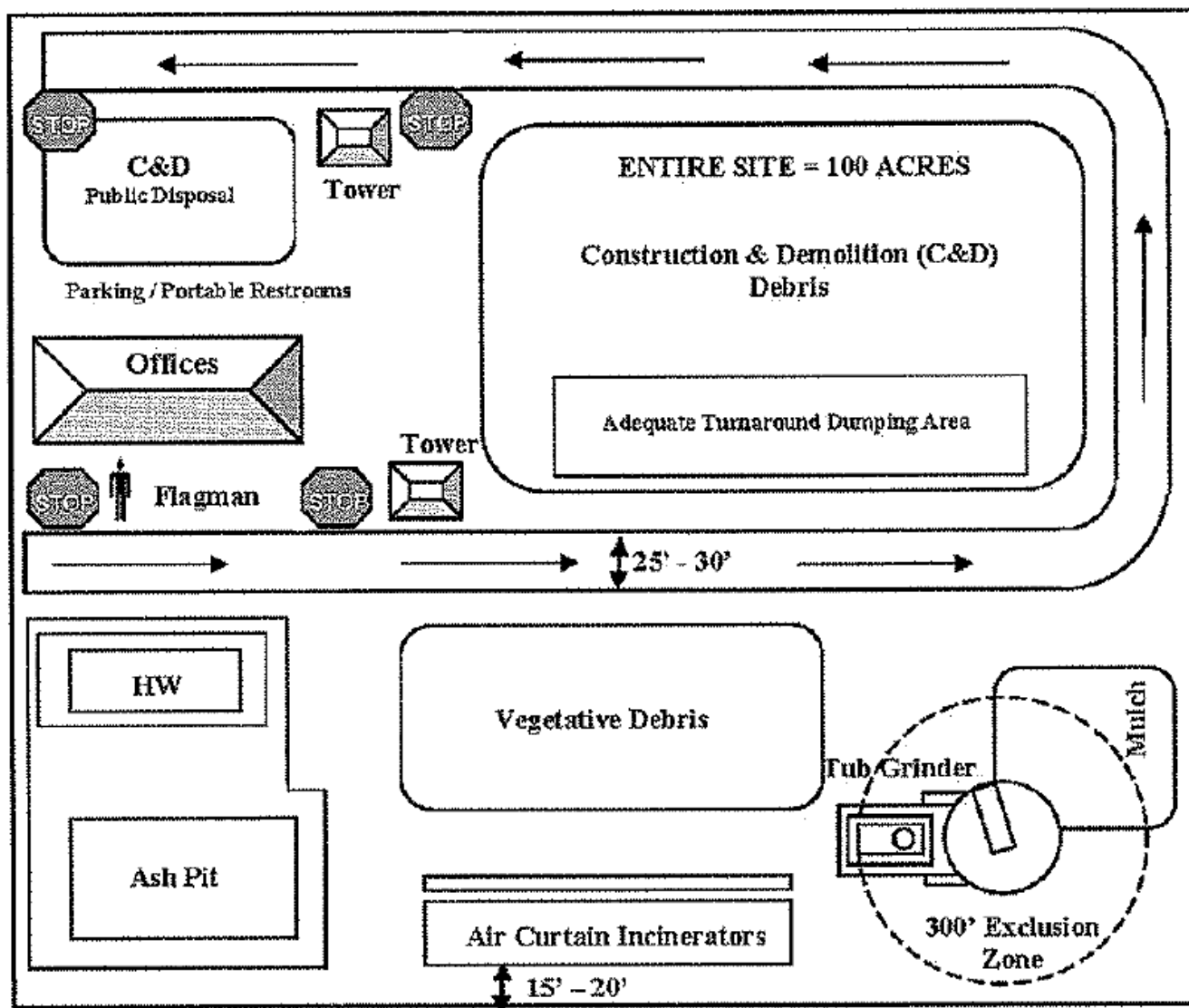
46656 is used to convert cubic inches to cubic yards and is a constant

The formula used to calculate the cubic yardage used the following factors, based upon findings in the field:

- Stump diameter measured two feet up from ground
- Stump diameter to root ball diameter ratio of 1:3.6
- Root ball height of 31"

Stump Diameter (Inches)	Debris Volume (Cubic Yards)	Stump Diameter (Inches)	Debris Volume (Cubic Yards)
6	0.3	46	15.2
7	0.4	47	15.8
8	0.5	48	16.5
9	0.6	49	17.2
10	0.7	50	17.9
11	0.9	51	18.6
12	1	52	19.4
13	1.2	53	20.1
14	1.4	54	20.9
15	1.6	55	21.7
16	1.8	56	22.5
17	2.1	57	23.3
18	2.3	58	24.1
19	2.6	59	24.9
20	2.9	60	25.8
21	3.2	61	26.7
22	3.5	62	27.6
23	3.8	63	28.4
24	4.1	64	29.4
25	4.5	65	30.3
26	4.8	66	31.2
27	5.2	67	32.2
28	5.6	68	33.1
29	6	69	34.1
30	6.5	70	35.1
31	6.9	71	36.1
32	7.3	72	37.2
33	7.8	73	38.2
34	8.3	74	39.2
35	8.8	75	40.3
36	9.3	76	41.4
37	9.8	77	42.5
38	10.3	78	43.6
39	10.9	79	44.7
40	11.5	80	45.9
41	12	81	47
42	12.6	82	48.2
43	13.3	83	49.4
44	13.9	84	50.6
45	14.5		

Appendix C: Sample Debris Management Site



Appendix D: Unit Price Contract Summary Matrix

Unit Price Contract Summary Matrix						
Type of Contract	Structure and Use	Required Provisions	Advantages	Disadvantages	Monitoring	Documentation
UNIT PRICE	Uses units of measure (cubic yards, tons, each) and prices to develop line item costs and total contract costs	Specific documentation requirements, based on quantifiable units, such as load tickets, and payment	Scope of work may be adjusted easily at a known cost	Possibility of contractor fraud if operations are not closely monitored	Labor intensive	Load ticket system
	Used when scope of work is difficult to quantify. The bid proposals are based on applicant-estimated quantities and units of work		Accurate account of actual quantities when work is complete	Trucks require measurement and loads accurately documented		Monitors at collection points and where the debris is unloaded (DMS or final disposition)
			Simplicity of contract encourages competition	Segregated curbside collection may complicate the scope of work		
			Low risk for contractors			

Appendix E: Lump Sum Contract Summary Matrix

Lump Sum Contract Summary Matrix							
Type of Contract		Structure and Use	Required Provisions	Advantages	Disadvantages	Monitoring	Documentation
LUMP SUM	All Lump Sum	<p>Establishes a fixed contract based on the applicant scope of work specified in the bid solicitation</p> <p>Used when the scope of work is clearly defined by the applicant, including quantity, type, and location of debris</p>	<p>Specific process for a change order request, exact quantity of debris, and types of debris.</p> <p>Provision to cover if the collection or unloading location changes after the contract is awarded</p>	<p>Cost is established at the bid opening</p> <p>Easy to determine when the work is complete</p>	<p>Scope of work must be very specific to avoid change orders</p> <p>Often difficult to quantify debris and identify the types of debris requiring collection</p>	Minimum	Amount of debris collected, reduced/ recycled, and disposed will be required to establish reasonable price
	Collection - Area Method	<p>Used when a well defined area can be provided for bidding purposes</p>	<p>Specific process for a change order request, exact quantity of debris, and types of debris.</p> <p>Provision to cover if the collection or unloading location changes after the contract is awarded</p>		<p>Scope of work has to be accurately quantified to minimize change orders</p> <p>Estimating the amount of debris to be brought to the rights-of-way difficult to determine</p> <p>High probability of change orders if estimates are based on speculation</p>	Minimum	Amount of debris collected, reduced/ recycled, and disposed will be required to establish reasonable price
	Collection - Pass Method	<p>Defines how many times a curbside collection will be completed on a particular street or through a well defined area</p>	<p>Specific process for a change order request, exact quantity of debris, and types of debris.</p> <p>Provision to cover if the collection or unloading location changes after the contract is awarded</p>	<p>Possibility of fewer change orders since the scope of work is better defined</p> <p>Average management duties</p>	<p>Up-to-date street information and plans to be included in the scope of work</p> <p>Requires cooperation of the public to place only eligible debris at the curb and participate in segregating materials</p> <p>Intense public information campaign</p>	Minimum	Amount of debris collected, reduced/ recycled, and disposed will be required to establish reasonable price

Appendix F: Time and Materials Contract Summary Matrix

Time-and-Materials Contract Summary Matrix						
Type of Contract	Structure and Use	Required Provisions	Advantages	Disadvantages	Monitoring	Documentation
TIME-AND-MATERIALS	Paid on an hourly rate for labor, materials, and equipment	Capped by the period of performance and/or monetary ceiling	Good for response activities	Requires close contractor oversight and direction as to work to be performed	Labor Intensive	Intense
	A known quantity of work is not established prior to the contractor beginning work	<p>Price for equipment applies only when the equipment is in use</p> <p>Hourly rate for equipment includes fuel, maintenance, and repair</p> <p>Bids should include all overhead costs</p> <p>Specific hours the contractor is to perform work (to ensure monitoring staff is present to document activity)</p> <p>No guarantee of a minimum number of hours</p> <p>If multiple contracts are awarded, the period of performance should run concurrently rather than consecutively</p>	<p>Extremely flexible; not limited by a specific scope of work</p> <p>Range of uses; appropriate clearance of major access routes or roads to critical facilities</p>	<p>Requires documentation of actual hours worked by equipment and operators</p> <p>Reasonable hourly rates may be difficult to establish if not competitively bid</p> <p>Equipment specifications may have to be generalized in order to encourage competition</p> <p>Requires full-time trained monitors to document work completed and verify hours worked</p>		Actual labor and equipment must be accounted for during entire performance period

Appendix G: Operational Safety Awareness & Regulations

Potential Hazards

Boone County Responders along with contracted workers may face the following potential hazards while performing debris management operations:

Unstable work surfaces	Roadside work
Structural integrity	Driving
Flying debris (eye injuries)	Breathing dust
Heavy equipment	Falling ice & debris
Electrical	Carbon monoxide
Excessive noise	Smoke inhalation
Falls from heights	Potential chemical exposures
Molds	Bites and stings
Blood-borne diseases	Water and food sanitation
Personal sanitation and hygiene	Traumatic stress
Confined spaces	

Safety Regulations

Boone County personnel are subject to the rules and regulations of the Missouri Department of Labor, while contracted personnel are subject to OSHA regulations. However, since these regulations are often tied together, the following list of regulations will be considered before, during, and after all debris management activities.

- 29 CFR 1910.1200 (HazCom)
- 29 CFR 1910.120 (Hazwoper)
- 29 CFR 1910.134 (Respiratory Protection)
- 29 CFR 1910.146 (Confined Spaces)
- 29 CFR 1910.1030 (Bloodborne Pathogens)
- 29 CFR 1926.20-35 (General Construction)
- 29 CFR 1910.23 (Fall Protection)
- 29 CFR 1915.159 (Fall Arrest Equipment)
- 29 CFR 1910.132 (Personal Protective Equipment)
- 29 CFR 1910.137 & 29 CFR 1910.332 (Electrical Safety)
- 29 CFR 1910.147 (Lockout/Tagout), and
- All other local, state or federal safety regulations.

Health Concerns

Exposure to potentially hazardous conditions may require immunization and/or monitoring from public health experts. Specific considerations include tetanus, hepatitis A, or other vaccines as recommended by the Columbia/Boone County Health Department.

Appendix H: Debris Removal and Disposal Monitoring Plan Example

GENERAL

All jurisdictions within Boone County have entered into a contract with _____ for the purpose of:

Removing vegetative debris from rights-of-way and temporary debris staging sites and hauling the vegetative debris to a temporary debris storage and reduction site.

Setting up and operating one debris volume reduction site located at:

Hauling chips/mulch from the debris volume reduction site to _____ Landfill or a location of the Debris Manager's choosing.

The Debris Manager will be responsible for monitoring the Contractor's debris removal and disposal activities using municipal and _____ personnel to prepare Debris Load Tickets and contract oversight.

PURPOSE

The purpose of this plan is to outline the monitoring responsibilities of the municipality's Debris Contract Oversight Team personnel. This plan is subject to revision based on the changing conditions.

MONITORING OPERATIONS

The contractor will be responsible for removing all eligible vegetative debris from the affected jurisdiction's street right-of-way and hauling limbs, branches, and yard wastes to designated sites at _____.

Tree trunks greater than two feet in diameter and root balls will be hauled directly to the designated sites at _____.

Monitoring activities will be controlled by the Debris Manager from the Debris Management Center. The phone number for the Debris Manager is (ADD PHONE NUMBER). Day-to-day operations and contracting problems/questions should be directed to the Debris Manager.

The Debris Contract Oversight Team Monitor's workday is expected to be from 7 a.m. – 7 p.m., with a one-hour lunch or maximum of 12 hours/day, seven days per week.

Monitors will be responsible for initiating Debris Load Tickets at Contractor debris loading sites and estimating the recording of the quantity of debris, in cubic yards, of Contractor vehicles entering the TDSRS on Debris Load Tickets.

Appendix I: Monitoring Staff Assignments

Monitoring assignments and personnel names should be recorded in the following table.

Monitory Site	Municipality	Monitory Contractor

Appendix J: Debris Loading Site Monitoring Checklist

Date: _____

Arrival Time: _____ Departure Time: _____ Weather Conditions:

Loading Site Location:

GPS Location: N _____; W _____

Loading Site Monitor's Name: _____ (Print Name)

Roving Monitor's Name: _____ (Print Name)

Roving Monitor's Signature: _____

Loading Site

1. Is the Site Monitor filling out the Load Ticket properly? Yes ____ No ____ If NO, explain actions taken: _____

2. Is the Contractor loading eligible debris from the designated right-of-way (approximately 15 feet from curb)? Yes ____ No ____ If NO, explain actions taken:

3. Is the Contractor loading trucks to capacity? Yes ____ No ____ If NO, explain actions taken:

4. Identify Contractor's truck number observed while on site:

5. Were photographs taken at the loading site? Yes ____ No ____ If YES, list photo log number:

General Notes and Comments: (Include observations within the general area as to overall cleanup activities) _____

Appendix K: Debris Monitoring Tips

Debris monitoring is a critical piece of the overall operation. By avoiding the following fraudulent acts, operational compliance is maintained.

Inaccurate Truck Capacities – Trucks will be measured before operations and load capacities will be documented by truck number. Periodically, trucks will be pulled from operations and reassessed.

Trucks Not Fully Loaded – Do not accept the contention that loads are higher in the middle and if level would fill the truck.

Trucks Lightly Loaded – Trucks arrive loaded with treetops with extensive voids in the load. Trucks need to be loaded to their full capacity with front end loaders or other similar equipment.

Trucks Overloaded – Trucks cannot receive credit for more than the measured capacity of the truck or trailer bed even if material is above the sideboards.

Changing Truck Numbers – Trucks are listed by an assigned vehicle number and capacity. There have been occasions where truck or trailer numbers with a smaller carrying capacity have need changed to one with a larger capacity. Periodically remeasuring the trucks will identify this issue.

Wet Debris When Paid by Weight – Excessive water added to debris will increase the weight of the load. When the contractual unit cost is based on weight, this increased the cost to Boone County. This can be detected during monitoring if there is excessive water dripping from the truck bed.

Multiple Counting of the Same Load – Trucks have been reported driving through the disposal site without unloading, then re-entering with the same load. This can be detected by observing the time of departure and the time of arrival recorded on the driver's load ticket.

Picking up Ineligible Debris – Monitors will have a good understanding of eligible debris and anytime limits imposed on picking up specific types of debris.

Appendix L: Debris Disposal Site Monitoring Checklist

Date: _____

Arrival Time: _____ Departure Time: _____ Weather Conditions: _____

Loading Site Location: _____

GPS Location: N _____; W _____

Loading Site Monitor's Name: _____ (Print Name)

Roving Monitor's Name: _____ (Print Name)

Roving Monitor's Signature: _____

Disposal Site

1. Is the Disposal Monitor filling out the Load Ticket properly? Yes ____ No ____ If NO, explain actions taken:

2. Is the Disposal Monitor attaching a copy of the Weight Ticket to the Load Ticket? Yes ____ No ____ If NO, explain actions taken:

3. Is the Contractor loading trucks to capacity? Yes ____ No ____ If NO, explain actions taken:

4. Identify Contractor's truck number observed while on site:

5. Were photographs taken at the loading site? Yes ____ No ____ If YES, list photo log number:

General Notes and Comments: (Include observations within the general area as to overall cleanup activities) _____

Appendix M: Sample Boone County Debris Load Ticket

DEBRIS LOAD TICKET	
Task Order Number:	
Name of Affected Jurisdiction:	
Ticket Number:	
Contractor's Name:	
Driver's Name:	
Truck/Trailer Number:	
Measured Bed Capacity in Cubic Yards:	
Departure Date:	Departure Time:
Pickup Site Location (must be street address or nearest intersection):	
DOT System Road:	
Public Access Road:	
Federal Highway:	
Other:	
Type of Debris:	
	Burnable or Grindable (Clean Wood Debris)
	Non-Burnable (Treated Lumber, Metals, C&D)
	Mixed (Burnable and Non-Burnable)
	Other (Define)
Loading Site Monitor:	
Signature:	
Debris Management Site Location:	
Arrival Time:	
Estimated Volume of Debris in Truck/Trailer:	
Cubic Yards	
Debris Management Site Monitor:	
Signature:	
Remarks	

Appendix N: Boone County Permanent Debris Sites & Potential Temporary Debris Management Sites (TDMS)

Boone County has identified numerous sites that may be used for the temporary and/or permanent storage reduction, and overall management of disaster-related debris until final disposition is made at a permanent landfill. The sites are listed on the following map.

Site 1: City of Columbia Landfill, located at 5700 Peabody Road.

Debris Management Plan – Columbia Sanitary Landfill

Missouri Department of Natural Resources Solid Waste Permit No 101908

Current Hours of Operations:

Monday – Friday: 7:00 a.m. to 4:00 p.m.

Saturday: 8:00 a.m. to 2:00 p.m.

The City of Columbia Sanitary landfill does not have capacity limits set within its solid waste permit regarding the quantity of material that can be accepted daily. However, based on current operational considerations it is estimated that our facility could only accept approximately 2500 tons daily with current equipment, staffing, and hours of operation (approved by the Missouri Department of Natural Resources (MoDNR). It is anticipated that in the case of a natural disaster the MoDNR would allow the facility to adjust its time of operation to better address the needs of the community therefore increase the quantity of material that could be accepted daily. The facility currently has enough employees to work two shifts potentially allowing the facility to operate approximately 20 hours per day. This adjustment would increase our estimated daily tonnage potential from 2500 ton/day to approximately 5000 ton/day.

The City of Columbia Sanitary landfill has developed a Business Continuity Plan to help reduce the likelihood of a shut down at the facility due to a natural disaster. The Landfill has identified alternative ways to access the facility, to capture incoming and outbound weights, and has some level of redundancy in the equipment required for waste placement.

Columbia Sanitary Landfill - Facility Directory

5700 Peabody Road, Columbia, MO



Site 2: Boone County Road and Bridge - Hallsville Facility



Site 3: Oakland Gravel Facility

- 5001 Oakland Gravel Road, Columbia Mo 65202



BCRB has the ability to establish just in time agreements with private property owners for temporary debris collection points on their property.

Site 4: City of Hallsville Residential Drop Off

- Brown Avenue (N 60 FT of W 70 FT BLK G & W 20 FT LOT 10 BLK D)
- Can accept leaves, grass clippings, brush and limbs, and yard and garden vegetation
- 2.9-acre area where debris can be temporarily stored prior to disposal
- No burning is allowed at this site due to the location of houses



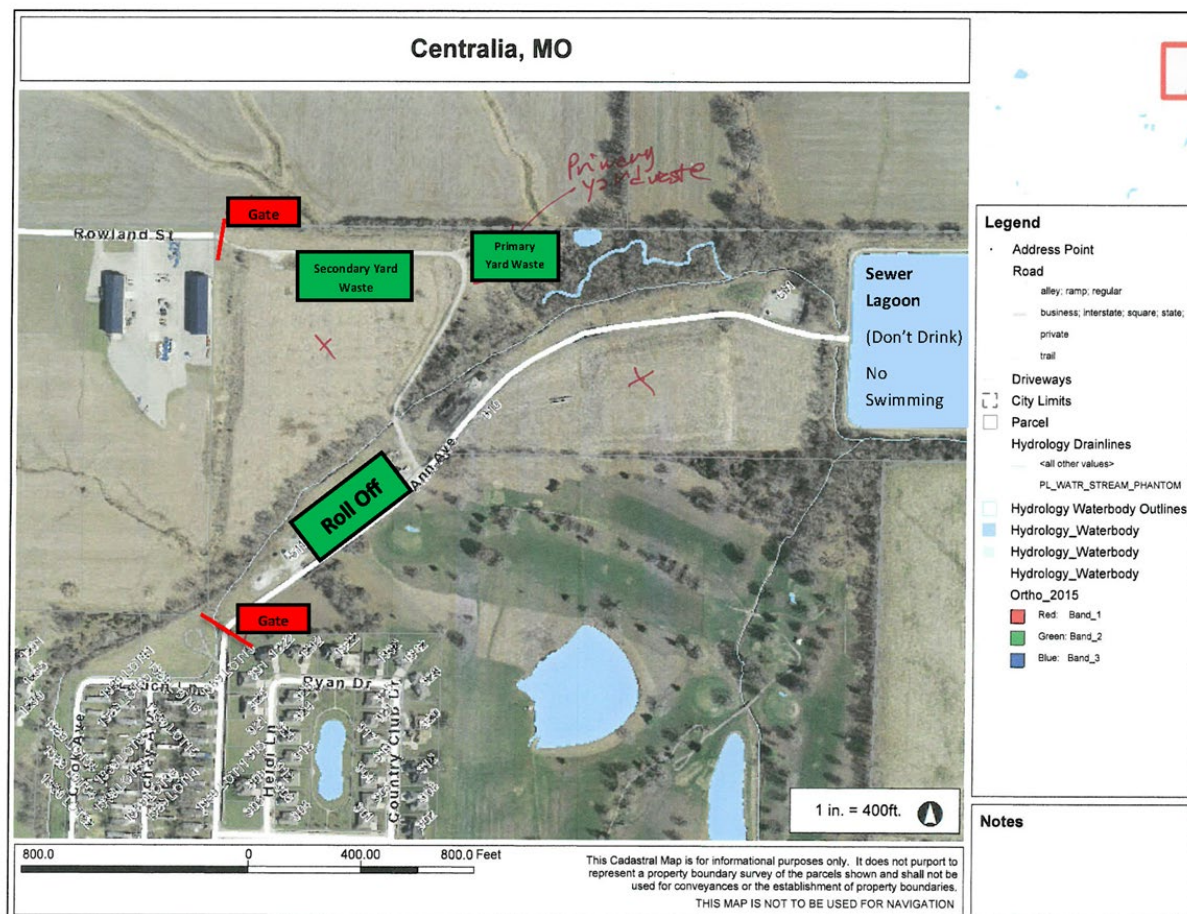
Site 5: City of Hallsville Truck & Commercial Drop Off

- East Kemper Road (SE COR E1/2 NW SUR 551-308)
- Can accept leaves, grass clippings, brush and limbs, and yard and garden vegetation
- Area where debris can be stored for burning
- Burning is allowed at this site once burn permit is applied for. Department of Natural Resources approved.



Site 6: City of Centralia

- East Kemper Road (SE COR E1/2 NW SUR 551-308)
- Can accept leaves, grass clippings, brush and limbs, and yard and garden vegetation



Appendix O: Truck Certification Form

DUMP TRUCK					
Measurements <div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> Truck Measurements Length (L) = <input style="width: 100px;" type="text"/> </div> <div style="width: 30%;"> Width (W) ft = <input style="width: 100px;" type="text"/> </div> <div style="width: 30%;"> Height (H) ft = <input style="width: 100px;" type="text"/> </div> </div> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div style="width: 30%;"> Hoist Measurement Length₁ (L₁) ft = <input style="width: 100px;" type="text"/> Length₂ (L₂) ft = <input style="width: 100px;" type="text"/> </div> <div style="width: 30%;"> WidthH (W_H) ft = <input style="width: 100px;" type="text"/> </div> <div style="width: 30%;"> Height_H (H_H) ft = <input style="width: 100px;" type="text"/> </div> </div> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div style="width: 30%;"> Radius Radius ft = <input style="width: 100px;" type="text"/> </div> <div style="width: 30%;"> Height (H) = <input style="width: 100px;" type="text"/> </div> </div>					
Calculations <div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> Bed Volume (Basic) Hoist Volume Radius Volume Total = <input style="width: 100px;" type="text"/> cyd </div> <div style="width: 30%;"> $(L \times W \times H) / 27 =$ <input style="width: 100px;" type="text"/> cyd $((L_1 + L_2 / 2) \times W_H \times H_H) / 27 =$ <input style="width: 100px;" type="text"/> cyd $(3.14 \times R^2 \times H) / 27 =$ <input style="width: 100px;" type="text"/> cyd Total = <input style="width: 100px;" type="text"/> cyd </div> <div style="width: 30%; text-align: center;"> <div style="border: 1px solid black; height: 50px; width: 100%;"></div> <p>Cubic Yards</p> </div> </div>					
<div style="display: flex; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg); font-size: small; margin-right: 5px;">Truck Measurements</div> <div style="flex-grow: 1;"> </div> </div>					
EXTRA TRAILER					
Measurements <div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> Truck Measurements (Basic) Length (L) = <input style="width: 100px;" type="text"/> </div> <div style="width: 30%;"> Width (W) ft = <input style="width: 100px;" type="text"/> </div> <div style="width: 30%;"> Height (H) ft = <input style="width: 100px;" type="text"/> </div> </div> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div style="width: 30%;"> Length₁ (L₁) ft = <input style="width: 100px;" type="text"/> Length₂ (L₂) ft = <input style="width: 100px;" type="text"/> </div> <div style="width: 30%;"> WidthH (W_H) ft = <input style="width: 100px;" type="text"/> </div> <div style="width: 30%;"> Height_H (H_H) ft = <input style="width: 100px;" type="text"/> </div> </div> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div style="width: 30%;"> Radius Radius ft = <input style="width: 100px;" type="text"/> </div> <div style="width: 30%;"> Height (H) = <input style="width: 100px;" type="text"/> </div> </div>					
Calculations <div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> Bed Volume (Basic) Hoist Volume Radius Volume Total = <input style="width: 100px;" type="text"/> cyd </div> <div style="width: 30%;"> $(L \times W \times H) / 27 =$ <input style="width: 100px;" type="text"/> cyd $((L_1 + L_2 / 2) \times W_H \times H_H) / 27 =$ <input style="width: 100px;" type="text"/> cyd $(3.14 \times R^2 \times H) / 27 =$ <input style="width: 100px;" type="text"/> cyd Total = <input style="width: 100px;" type="text"/> cyd </div> <div style="width: 30%; text-align: center;"> <div style="border: 1px solid black; height: 50px; width: 100%;"></div> <p>Cubic Yards</p> </div> </div>					
<div style="display: flex; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg); font-size: small; margin-right: 5px;">Trailer/Truck Combination</div> <div style="flex-grow: 1;"> </div> </div>					
ROUND BOTTOM TRUCK					
Measurements <div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> Truck Measurements Length (L) ft = <input style="width: 100px;" type="text"/> </div> <div style="width: 30%;"> Diameter (D) ft = <input style="width: 100px;" type="text"/> </div> </div>					
Calculations Approx. Volume $(3.14 \times (D/2)^2 \times L) / 27 =$ <input style="width: 100px;" type="text"/> cyd (round bottom portion only)					
<div style="display: flex; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg); font-size: small; margin-right: 5px;">Round Bottom Truck</div> <div style="flex-grow: 1;"> </div> </div> <div style="text-align: center; margin-top: 20px;"> <div style="border: 1px solid black; height: 50px; width: 100%;"></div> <p>Cubic Yards</p> </div>					

Appendix P: Sample Debris Notification Sheet

Your area has been involved in a disaster event. Please avoid placing debris over fire hydrants, gas meters, and in the street. To assist in the debris clean up please separate the following at the curbside.

To expedite cleanup efforts please separate debris as follows in individual piles:

- Trees and Vegetation
- White goods (washing machine, refrigerators)
- Clean construction debris (2x4's and such, plywood)
- Metals
- Household hazardous chemicals (Paints, bug killers, cleaning products)
- Personal property

We thank you for your cooperation through these trying times.

Please contact us at _____ with any questions or concerns

Appendix Q: Right of Entry Agreement

Right of Entry Agreement

I/We _____, the owner of the property commonly identified as

(street, city/town, county, state) do hereby grant and give freely and without coercion, the right of access and entry to said property in the County/City of _____, its agencies, contractors, and subcontractors thereof, for the purpose of removing and clearing of any or all storm-generated debris of whatever nature from the above described property.

It is fully understood that this permit is not an obligation to perform debris clearance. The undersigned agrees and warrants to hold harmless the City/County of _____, State of _____, its agencies, contractors, and subcontractors, for damage of any type, whatsoever, either to the above described property or persons situated thereon and hereby release, discharge, and waive any action, legal or equitable that might arise out of any activities of the above described property. The property owner(s) will mark any storm damaged sewer lines, water lines, and other utility lines located in the described property.

I/We (have _____, have not _____) (will _____, will not _____) receive any compensation for debris removal from any other sources including the Small Business Administration (SBA), National Resource Conservation Service (ANRCS), private insurance, individual and family grant program or any other public assistance program. I will report for this property any insurance settlements to me or my family for debris removal that has been performed at government expense. For the considerations and purposes set forth herein, I set my hand this _____ day of _____.

Owner

Owner

Witness

Telephone Number and Address

Appendix R: Debris Site Selection Worksheet

Site Name _____

Site Address _____

Estimated Size in Acres _____

Estimated Volume of Debris Able to Hold (cubic yards) _____

(Note: Assume up to 16,000 cubic yards/acre and only 40 percent of site available for debris storage.)

Primary Local Government Point of Contact:

Name _____ Phone _____ Email _____

Secondary Local Government Point of Contact:

Name _____ Phone _____ Email _____

Preferred Disaster Debris Management Site Criteria

- ☐ The site is owned or controlled by municipal or state government.
- ☐ The site has easy access, including being near the area of debris generation, easy to enter and exit, and near transportation arteries.
- ☐ The site is ready to use as a debris management site without extensive site modifications. The debris storage and handling areas would be at least 100 feet from property lines.
- ☐ To the maximum extent possible, the site location minimizes potential environmental and public health impacts, including considering setbacks from public water supplies, surface water bodies, and residential dwellings and avoiding areas such as flood plans, drinking water Zone IIs, and Areas of Critical Environmental Concern.

If any of these criteria are not met, please explain why not and how any concerns regarding that criterion would be addressed:

Anticipated Site Activities

(Note: intended for use only in declared disaster, NOT for routine operation.)

- ☐ A site plan and layout has been prepared that considers the management and operating practices recommended in this guidance

What types of disaster debris do you expect to manage at this site? (e.g., vegetative waste, C&D debris, hazardous household products, etc.)

What debris processing or other handling activities do you expect to conduct at this site? (e.g., sorting and transfer of recycling, chipping vegetative waste, transfer of trash for disposal, etc.)

Please summarize any other benefits or concerns with using this site as a debris management site.

Debris Management Project/Crew Tracking Form (Sample)

Date: _____

Start Time: _____

End Time: _____

Crew Staff:

Equipment Utilized:

Appendix S: Federal and State Guidance

Natural Resources Conservation Service
CONSERVATION PRACTICE STANDARD
Emergency Animal Mortality Management
Code 368
(No.)

DEFINITION

A means or method for the management of animal carcasses from catastrophic mortality events.

PURPOSE

This practice may be applied to achieve one or more of the following purposes:

- reduce impacts to surface water and groundwater resources
- reduce the impact of odors
- decrease the spread of pathogens

CONDITIONS WHERE PRACTICE APPLIES

This standard applies to animal operations where a catastrophic event would result in the need to manage animal carcasses.

This practice may not apply to catastrophic mortality resulting from disease. In cases of disease -related catastrophic mortality, this standard is applicable only when the appropriate State or Federal authority (typically the State veterinarian or USDA Animal and Plant Health Inspection Service (APHIS)) approves the use of the methods in this standard.

This practice does not apply to routine animal mortality. For routine animal mortality, use NRCS Conservation Practice Standard (CPS) Code 316, Animal Mortality Facility.

CRITERIA

General Criteria Applicable to All Purposes

Design emergency mortality management operations to handle the catastrophic mortality in conformance with all applicable federal, state and local regulations.

As a minimum, divert runoff from a 25-year 24-hour rainfall event away from the emergency animal mortality management site.

Provide warning signs, fences, refrigeration unit locks, and other devices as appropriate, to ensure the safety of humans and livestock.

Address biosecurity concerns in all aspects of planning, installation, operation, and maintenance of a catastrophic animal mortality operation.

The landowner/contractor is responsible for locating all buried utilities in the project area, including drainage tile and other structural measures.

Include provisions for closing and/or removing temporary components of the emergency mortality management operation, where required.

Onsite Disposal

Location. Locate onsite mortality management activities so that prevailing winds and landscape elements minimize odors and protect visual resources.

Locate the facility down -gradient from springs or wells where possible or take steps necessary to prevent groundwater contamination.

Locate onsite mortality management operations above the 100-year floodplain elevation unless site restrictions require location within the floodplain and the management operations located within the floodplain are portable and can be quickly relocated if it becomes necessary (i.e., loading site for transportation to offsite disposal location). Use an offsite disposal method if there is not a suitable location on the farm.

Locate onsite mortality management activities to minimize disruption of ongoing daily operations.

Locate onsite mortality management activities for acceptable ingress and egress and where it will not interfere with other travel patterns on the farm such as livestock pathways and feed lanes.

Locate on sites with restricted percolation and a minimum of 2 feet between the bottom of the facility and the seasonal high water table unless special design features are incorporated that address seepage.

The soil interpretations found in the Disaster Recovery category under Soil Suitabilities and Limitations on the Web Soil Survey (<http://websoilsurvey.nrcs.usda.gov/app/>) can be used as an initial screening tool to identify areas that are likely to be most suitable for this practice.

Use the criteria in NRCS CPS 342, Critical Area Planting, to revegetate all areas disturbed by mortality management activities.

Burial Pit/Trench

General. Bury catastrophic mortality onsite or as otherwise directed by state and local regulatory agencies. More than one pit/trench may be required. When possible, time the burial of catastrophic mortality to minimize the effects of mortality carcass expansion during the early stages of the decay process. Where possible and permitted by State law, leave large animal mortality uncovered or lightly covered until bloating has occurred, or use methods to reduce or eliminate bloating. Retain topsoil to re-grade the disposal site after the ground has settled as the decay process is completed. Place stockpiled soil no closer than 2 feet from the edge of the burial pit/trench.

Remove or render inoperable all field drainage tile (subsurface drains) within the operational area of the burial pit/trench.

Soil Suitability. Perform an onsite soils investigation to determine the suitability of the site for a burial pit/trench. Locate burial pits on soils which do not flood and which do not have a water table within 2 feet of the bottom of the burial pit. Avoid areas that have the presence of hard bedrock, bedrock crevices, or highly permeable strata at or directly below the proposed pit/trench bottom. These sites are undesirable because of the difficulty in excavation and the potential pollution of groundwater.

Seepage Control. Where seepage will create a potential water quality problem, provide a liner which meets the requirements of the NEH Part 651, Agricultural Waste Management Field Handbook (AWMFH), Appendix 10D for clay liner design criteria, or other acceptable liner technology.

Size and Capacity. Size the pits /trench to accommodate the catastrophic mortality using appropriate weight to volume conversions. Construct the pit/trench bottoms to be relatively level. The length of the pit/trench may be limited by soil suitability and slope. If more than one pit/trench is required, separate the pits/trenches by a

minimum of three feet of undisturbed or compacted soil. Place a minimum of 2 feet of cover over the mortality. Provide a finished grade for the burial site that is slightly above natural ground elevation to accommodate settling and reduce ponding from precipitation events.

Burial Trench Loading Design and Safety. Use barriers to keep vehicular traffic at least four feet from the edge of the pit/trench edge.

Use pit excavation techniques that are OSHA compliant. For pits/trenches that are 4 to 5 feet deep, provide a step or bench 18 inches wide and 1 foot deep dug around the perimeter of the main pit so that the remaining vertical wall will not exceed 4 feet. For pits greater than 5 feet deep, provide earthen walls that are sloped at 2 horizontal and 1 vertical or flatter.

Composting

General. Use composting as described in, National Engineering Handbook (NEH) Part 637, Chapter 2, Composting; and NEH, Part 651, Chapter 10, Section 651.1007, Mortality Management.

Plan for the needed amount of carbonaceous material required to facilitate the composting action.

Protect composting mortality from precipitation as necessary, or provide an appropriate filter area or means for collecting contaminated runoff. Cover dead animals in static piles or windrows with a minimum of 18 inches of sawdust, finished compost, or other carbonaceous material to discourage scavenging animals and minimize odors.

Incinerators and Gasifiers

General. Use type 4 (human and animal remains) incinerators that have been approved for use within the State. Gasification, which is a high temperature method of vaporizing the biomass with no direct flame with oxidation of the fumes in an after-burning chamber, shall meet all applicable State air quality/emissions requirements.

Capacity. Base the minimum incinerator/gasifier capacity on the average weight of animals times the number of animals in the event. Refrigeration units may be necessary in conjunction with incinerators/gasifiers to improve the loading cycle and fuel use efficiency of the incineration/gasification unit.

Ashes. Remove ashes according to manufacturer recommendations to maximize efficiency of incineration. Spread ash according to NRCS CPS Code 590, Nutrient Management, or provide for other acceptable means of disposal.

Location. Locate the incinerator/gasifier a minimum of 20 feet from any structure.

Open-air Burning

Open-air burning involves combustion of waste at high temperatures, converting the waste into heat, gaseous emissions, and ash. The gaseous emissions are vented directly into the atmosphere in the human breathing zone without passing through a stack or chimney.

Open-air burning includes burning carcasses in open fields and on combustible open heaps, or pyres or air curtain destructors. Burning must take place as far away as possible from the public. Local conditions and circumstances may determine if this is the best disposal option to choose.

On-farm preprocessing may be required prior to open-air burning. Preprocessing could include the grinding of carcasses that can be transported in sealed containers or subjected to fermentation or freezing. However, grinding or shredding of carcasses infected with an infectious disease such as Highly Pathogenic Avian Influenza (HPAI) is not recommended because of the risk of aerosolizing the virus.

Open-air burning operations are strictly regulated, usually by State and/or local officials. A permit is usually required to perform open-air burning, if it is allowed at all.

Use NRCS CPS Code 342, Critical Area Planting, to revegetate all areas disturbed by construction.

Temporary Mortality Storage with Refrigeration Units

General. Catastrophic mortality may be held in refrigeration units prior to disposal. Because of the large number of dead animals normally encountered in a catastrophic mortality situation, if refrigeration is used, it is likely that multiple units will be needed. Use refrigeration units with a construction compatible with the mechanism to be used to empty the refrigeration unit. Provide for protecting the refrigeration unit from precipitation and direct sun as deemed appropriate.

The refrigeration unit design, construction, power source, and unit installation shall be in accordance with manufacturer's recommendations. Refrigeration units shall be constructed of durable material and leak proof.

Place refrigeration units on a pad of suitable strength to withstand loads imposed by vehicular traffic used to load or remove the box or tray.

Temperature. The refrigeration units shall be self-contained units designed to freeze animal carcasses before decomposition occurs. Carcasses to be rendered should be maintained between 22° and 26° F. Carcasses that will be composted, incinerated, gasified, or burned should be stored a few degrees above freezing in order to facilitate burning and to reduce the composting time or amount of fuel needed to incinerate or gasify the carcasses.

Capacity. Size the refrigeration units to accommodate the volume of mortality. When calculating the volume required, use the number of dead animals, the average weight of the animal, and a conversion factor for weight to volume. Use a weight to volume conversion of 45 pounds per cubic foot unless a local volume conversion factor has been documented.

Power Source. An adequate source of power will be needed to provide the large amount of electricity needed for cooling and/or freezing carcasses.

Offsite Disposal

In some instances, onsite disposal of all or a portion of the mortality may not be practical. In these instances, transportation and disposal by a third party at an offsite facility will be necessary.

Transportation.

The beds, trailers, dumpsters, etc., which will be used to transport the mortality to another location for disposal shall be leak proof, tarped and covered.

Rendering.

General. Rendering of animal mortalities involves conversion of carcasses into three end products—carcass meal, melted fat or tallow, and water—using mechanical processes (e.g., grinding, mixing, pressing, decanting and separating), thermal processes (e.g., cooking, evaporating, and drying), and/or chemical processes (e.g., solvent extraction). When the proper processing conditions are achieved, the final products will be free of pathogenic bacteria and unpleasant odors.

In an outbreak of disease such as foot and mouth disease, transport and travel restrictions may make it impossible for rendering plants to obtain material from traditional sources within a quarantine area. Additionally, animals killed because of a natural disaster, such as a hurricane, might not be accessible before they decompose to the point that they cannot be transported to a rendering facility and have to be disposed of onsite.

Animal mortalities should be collected and transferred in a hygienically safe manner according to State and local rules and regulations.

Land Fill

General. Modern subtitle D landfills are highly regulated operations, engineered and built with technically complex systems specifically designed to protect the environment. The environmental protection systems of a subtitle D landfill are generally more robust than those small, arid, or remote landfills that meet the EPA criteria for exemption from environmental protection systems, and would likely be less prone to failure following high organic loading as would occur in disposal of large quantities of carcass material.

In many States, disposal of animal carcasses in landfills is an allowed option; however, it is not necessarily an available option, as individual landfill operators generally decide whether to accept carcass material. During an emergency or instance of catastrophic loss, time is often very limited, and therefore landfills offer the advantage of infrastructures for waste disposal that are preexisting and immediately available. Furthermore, the quantity of carcass material that can be disposed of in landfills can be relatively large.

Landfill sites, especially subtitle D landfill sites, will have been previously approved, and the necessary environmental protection measures will be preexisting; therefore, landfills represent a disposal option that would generally pose little risk to the environment.

CONSIDERATIONS

Major considerations in planning emergency animal mortality management are:

- Available equipment and land application area at the operation
- The management capabilities of the operator
- The emotional impact on the producer caused by the mortality losses
- The degree of pollution control required by State and local agencies
- Effect on wildlife and domestic animals
- The economics of the available alternatives
- Effect on neighbors (aesthetic, odors, traffic on public roads)

Animal operations with a Comprehensive Nutrient Management Plan (CNMP) may have planned for catastrophic mortality disposal under the "Farmstead Safety and Security" element. Initial planning of site suitability should include referring to the Web Soil Surveys' soil interpretations for "disaster recovery planning" <http://websoilsurvey.nrcs.usda.gov/>.

Consider taking measures to maintain appropriate visual resources, reduce odor, and provide dust control. Measures may include use of existing vegetative screens and topography to shield the catastrophic animal mortality disposal from public view, to reduce odors, and to minimize visual impact.

An alternative to prevent bloating of catastrophic mortality includes opening animal thoracic and abdominal cavities and viscera prior to placing required cover.

State requirements for record keeping vary. Items such as burial site location, type and quantity of mortality, burial date, and other pertinent details may be required by State or local regulations.

PLANS AND SPECIFICATIONS

Prepare plans and specifications for animal mortality facilities that describe the requirements for applying this practice. As a minimum the plans and specifications shall include:

Contact information for state authorities since they may have specific requirements dependent upon cause of death, animal species and housing.

- Amount, type, and weight of mortality.

Layout and location of on-farm mortality management activities.
 Number, capacity, and type of on-farm disposal methods.
 Grading plan showing excavation and fill. Include drainage features, as appropriate.
 Soil and foundation findings, interpretations, and reports, as appropriate.
 Requirements for onsite disposal (i.e. composting, burial, etc.) and quantity of materials, as appropriate.
 Structural details of all components, as appropriate.
 Vegetative requirements for preventing erosion, as appropriate.
 Odor management or odor minimization requirement.
 Where offsite disposal such as rendering or landfilling is to be used, the name, location, and contact information for the selected offsite transportation and disposal facility.

OPERATION AND MAINTENANCE

An Operation and Maintenance (O&M) Plan shall be developed and reviewed with the operator responsible for the application of this practice. At a minimum, the plan will include:

Specific instructions for proper operation and maintenance of each component of this practice. Detail the level of inspection and repairs needed to maintain the effectiveness and useful life of the practice.
 Safety considerations.
 Address biosecurity concerns in all aspects of installation, operation and, maintenance.
 Identify onsite locations for emergency animal mortality management activities and disposal sites as appropriate.
 Contact(s) and phone numbers of person(s) to contact for catastrophic losses (figure 1).
 Maintain recordkeeping of number, average weight, cause, and date of animal deaths.
 Method and procedures of catastrophic mortality disposal.
 Periodic inspections of disposal sites as appropriate.
 Prompt repair or replacement of damaged components as appropriate.
 Site references and/or manufacturer or installer for trouble shooting mechanical equipment as appropriate.

Additional O&M for Incinerators and Gasifiers

Operate units properly to maximize efficiency of disposal and minimize emission problems.

Load the units according to the manufacturer's recommendations.

Remove ashes frequently to maximize combustion and prevent damage to equipment. Include methods for collecting and disposing of the ash material remaining after incineration.

Additional O&M for Refrigeration units

Load the refrigeration unit according to manufacturer's recommendations and do not exceed the design capacity.

Inspect the refrigeration unit periodically for leaks, structural integrity and temperature.

Additional O&M for Composters

Identify operational information and equipment that will need to be readily available.

Locate, as soon as practical, a source for carbonaceous material sufficient to provide for the catastrophic event.

Include a recipe of ingredients that gives the layering/mixing sequence.

Provide maximum and minimum temperatures for operation, land application rates, moisture level, management of odors, testing, etc.

Become familiar with composting methods and procedures as soon as practical.

REFERENCES

Code of Federal Regulations. Title 40 - Protection of Environment. Chapter I - Environmental Protection Agency (Continued). Subchapter I - Solid Wastes. Part 258 - Criteria for Municipal Solid Waste Landfills. Subpart A – General, Section 258.1(4)(f)(1) <http://www.gpo.gov/fdsys/pkg/CFR-2014-title40-vol25/xml/CFR-2014-title40-vol25-sec258-1.xml>

EPA Criteria for Meeting the Small, Arid, and Remote Municipal Solid Waste Landfill Exclusion <http://yosemite.epa.gov/osw/rcra.nsf/ea6e50dc6214725285256bf00063269d/148f6afee54217be852568e300468382!OpenDocument>.

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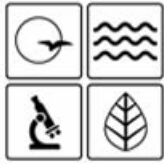
USDA, NRCS. National Engineering Handbook, Part 651, Agricultural Waste Management Field Handbook. Washington, D.C.

USDA, NRCS. National Engineering Handbook, Part 637, Chapter 2, Composting. Washington, D.C.

Figure 1

EMERGENCY MORTALITY RESPONSE
Emergency Contacts and Farm Information

Plan Date:	
Farm Name:	
Owner/Operator:	
County:	
Physical Address of Facility:	
Directions to Facility:	
Emergency Contacts	
Local Veterinarian:	
On-Call Veterinarian:	
Integrator:	
Other:	
Local Emergency Number:	
List of Agencies to notify within 24 hours:	
State Animal Health Agency:	
State Veterinarian:	
Federal Area Veterinarian in Charge:	
Heavy Equipment Contractor:	
for handling carcasses:	
for excavating burial pits:	
Composting Material Supplier:	
Incinerator:	
Landfill:	
Rendering Facility:	
Other (specify):	



Missouri Department of Natural Resources

Natural Disaster Assistance for Missouri Citizens - Natural Disaster Recovery for Historic Buildings

Department of Natural Resources fact sheet

01/2017

Department of Natural Resources Director: Carol S. Comer

PUB00760

The destruction to historic buildings caused by natural disasters can be significant. A moderately severe tornado, for example, is capable of lifting the roof off a historic building and, in the process, widely scattering its contents. The most intense tornado can lift a frame building in its entirety. Often, when a tornado passes over a structure, the rapid reduction in air pressure will cause the higher pressure inside to cause the building to explode.

Evaluation of damage to buildings is one of the first and most essential steps to undertake after a natural disaster. Building departments and private engineers will determine which damaged buildings are safe to enter.

In the rush to repair communities, it may be easier to demolish damaged historic buildings than to undertake repair, but understanding laws and policies for disaster relief often enables communities to restore these buildings.

Immediate Post-Disaster Actions for Historic Buildings

After an historic building has been deemed safe to enter, immediate steps should be taken to stabilize the structure:

- Ensure gas, electricity and water are shut off.
- Consult a licensed engineer or preservation architect about structural stability of buildings and chimneys.
- Check walls and ceilings for misalignment from the foundation.
- Temporarily secure broken boards with plywood. Secure doors and window openings with appropriate coverings. Keeping additional moisture out of the building is a key step in preserving the structure.
- Salvage from debris broken historic elements such as bricks or decorative elements for reuse or replication.
- Maintain protective roof coverings. Continued attention must be paid to temporary repairs. Repairing gutters and downspouts will help move water away from the building.

Maintaining Preservation Standards

Common effects of disasters on historic places, such as cracked walls, roofs that have been removed, water-damaged plaster and wet furnishings, usually can be repaired. Although the aftermath of a disaster is not “preservation as usual,” generally accepted standards should be followed even in the rush to repair.

For historic buildings, general and broad rules-of-thumb are good guides after disasters, as well as before:

- Repair rather than replace. Retain original features and materials wherever possible.
- Repair is historically and economically preferable to replacement.
- Replace with similar features. If replacement is necessary, use items that match the original in design and materials.
- Retain historic character. If matching replacements are impossible because features are unavailable or too expensive, try to reproduce the salient visual characteristics of the original, such as material, composition, proportion and color.
- Return to the original. When possible, replace previously missing parts and remove inappropriate modernizations.

Repairing Storm-Damaged Historic Buildings

Roofs

Roofs form the first line of defense of any historic building and are vital in keeping damaging moisture out of the building.

- Because a roof is damaged does not mean it is a complete loss. Get expert advice, particularly because damage may not be visible.
- Metal roofs may be more difficult to repair, especially when they have become bent out of shape due to wind damage. Portions may be reusable.
- Metal flashings at parapets, chimneys, dormers, valleys, ridges and porches, are especially vulnerable and should be checked thoroughly.

Masonry and Mortar Repairs

Mortar in an historic building can be weakened by the damaging winds of a tornado. Settlement can lead to cracking in masonry walls, which can compromise the structure.

- Compatibility of materials is important. Similar brick types should be used in repairs. Portland cement mortar or stucco should be avoided.
- A good type of mortar to use for most brick is one composed of lime, sand and portland cement. A typical mix appropriate for historic buildings might include three parts lime, one part portland cement and 10-to-12 parts sand.
- The use of portland cement for stucco repair may cause the old material around the patch to powder and deteriorate. It is important when patching stucco to use as dry a mix as possible to avoid shrinking and cracking.

Wood

- Be sure the building is fastened to its foundation, and tie together roof, walls and floors to strengthen the structural system.
- Reinforce rotted or insect-infested beam-ends by adding flitch plates or “sisters.”
- If the disaster recovery is used as an opportunity to upgrade the utilities in an historic structure, avoid drilling multiple holes through joists and beams, thus destroying or weakening the historic fabric.

Windows and Doors

Windows and doors can be among the most important and decorative features in an historic building. If replacement of windows and doors is determined to be necessary, a partial replacement of components such as window sash alone should be considered. If window or door frames are replaced, the exterior trim should closely match the original.

Restoration Hazards

- **Fire:** Never use an open flame or heat gun when working on wooden trim; both present a severe fire hazard.
- **Asbestos:** Wind and water damage, or work to repair this damage, can cause asbestos fibers, which were used in thousands of different construction materials, to become airborne. Missouri asbestos regulations differ for regulated and unregulated structures.
- **Regulated structures** (includes institutional, commercial, public, industrial or residential structures that contain more than four dwelling units) – A Missouri-certified asbestos inspector must perform an inspection for the presence of asbestos prior to the structure being renovated or demolished. Additional requirements such as notification or use of asbestos professionals may be required depending on the results of the inspection.
- **Unregulated structures** (a residential structure of less than four units) – While an asbestos inspection is not required, it can be a good idea. If asbestos-containing materials are detected on the site of a disaster, make sure all work halts immediately and professionals are brought in to clean it up.

Detailed information is available in the [Asbestos Requirements for Demolition and Renovation Projects, Fact Sheet--PUB2157](#) online, or by contacting the Air Pollution Control Program at 573-751-4817.

- **Lead Paint:** Any stripping or scraping of paint on old buildings may uncover lead paint and release lead-contaminated dust, which is potentially poisonous to children. Equally dangerous is the use of heat guns or flames, which vaporize the lead in old paint.

Financial Assistance for Recovery

Federal and state tax incentives exist for the rehabilitation of historic buildings. Most rehabilitation costs incurred as part of disaster recovery efforts may qualify for these credits.

- **Federal Historic Rehabilitation Tax Credit:** A 20 percent federal rehabilitation tax credit exists for substantially rehabilitated historic buildings. The credit applies to income-producing, depreciable structures only. Properties must be listed individually in the National Register of Historic Places or be a contributing element of a National Register Historic District.

Rehabilitation must be substantial, meaning rehabilitation costs must exceed either the greater of \$5,000 or the adjusted basis of the building. All rehabilitation work must meet the Secretary of the Interior's "Standards for Rehabilitation."

- A 10 percent federal credit also exists for non-historic buildings.
- Missouri Historic Rehabilitation Tax Credit: A 25 percent Missouri rehabilitation tax credit exists for substantially rehabilitated historic buildings. The credit applies to income-producing, depreciable structures or to an owner's personal residence. Properties must be listed individually in the National Register of Historic Places or be a contributing element of a National Register Historic District. Rehabilitation must be substantial, meaning rehabilitation costs must exceed 50 percent of the basis of the property. All rehabilitation work must meet the Secretary of the Interior's "Standards for Rehabilitation."

Bibliography

The information in this publication was prepared by the Missouri Department of Natural Resources' State Historic Preservation Office, with assistance from the National Park Service, Preservation Assistance Division.

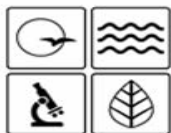
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Safeguarding Your Historic Site: Basic Preparedness and Recovery Measures for Natural Disasters. Federal Emergency Management Agency, Region 1, 1993.

Nothing in this document may be used to implement any enforcement action or levy any penalty unless promulgated by rule under chapter 536 or authorized by statute.

For more information

Missouri Department of Natural Resources
P.O. Box 176
Jefferson City, MO 65102-0176
800-361-4827 or 573-751-1300
<http://dnr.mo.gov>



Missouri Department of Natural Resources

Department of Natural Resources fact sheet

05/2017

Department of Natural Resources Director: Carol S. Comer

PUB00756

The following guidance applies only after the governor has declared a state of emergency due to damage caused by a natural disaster.

After the governor issues an executive order giving the director of the Missouri Department of Natural Resources the authority to temporarily waive or suspend the rules and regulations, the department may issue variances from environmental regulations during the emergency and subsequent recovery period. Failure to comply with federal or state regulations could affect financial assistance reimbursement.

Check with the department's nearest regional office for details on how wastes shall be handled before implementing any of these special practices. A list of regional offices is found in this document and on the web at dnr.mo.gov/regions/regions.htm.

Appliances

Appliances include clothes washers, dryers, water heaters, trash compactors, dishwashers, conventional ovens, ranges, stoves, woodstoves, air conditioners, refrigerators and freezers.

Appliances damaged by the storm can be disposed of in a sanitary landfill only if the governor declares a state of emergency, issues an executive order, and the department has issued appropriate waivers. Cities and counties are encouraged to coordinate collection of storm damaged appliances, using their own public works vehicles or contract help. Cities and counties should establish centralized collection centers to accumulate damaged appliances. Refrigerants should be legally recovered from air conditioners, freezers and refrigerators before recycling them or sending them to a landfill.

Processing and Recycling Appliances for Residents and Business Owners

Individuals needing to dispose of damaged appliances should contact their local officials first for collection of drop-off information, either for recycling or disposal. In rural areas where local assistance is not available, individuals should contact scrap metal recyclers.

For a partial list of recyclers, contact the department's Solid Waste Management Program at 800-361-4827 or 573-751-5401. Many recyclers are listed in the yellow pages of your local telephone directory.

Dead Animal Disposal

Small accumulations of dead animals should be buried on site as soon as possible to reduce public health hazards and odor problems.

Large accumulations of dead animals will require special consideration. Contact one of the following offices:

- State Veterinarian (Department of Agriculture), 573-751-3377

- Public Health Veterinarian, 573-751-6136
- Department of Natural Resources' Solid Waste Management Program, 800-361-4827 or 573-751-5401

Hazardous Chemical Waste (Drums, Tanks and Barrels)

If you find sealed drums, tanks or barrels of unknown contents, call the department's Environmental Emergency Response hotline at 573-634-2436. If a propane tank is in flood debris, a company distributing gas may be able to identify the tank and return it to its proper location. (Propane tanks are identified with serial numbers.) All above ground or underground leaks of fuel or other hazardous substances should be reported to the department's Environmental Emergency Response hotline at 573-634-2436.

For more information contact the department's Hazardous Waste Program at 573-751-3176 or the regional office in your area (listed below).

Household Hazardous Waste (HHW)

Cities and counties are encouraged to establish HHW collection programs for these flood wastes. Homeowners and workers should use caution when cleaning up household products in leaking or damaged containers. Wear rubber gloves and avoid breathing any fumes or dust. Avoid working around these damaged products in confined or poorly ventilated areas. For more information contact the regional office in your area (listed below).

Sandbags

Sandbags may be used as clean fill material so long as they are subsequently covered with a layer of soil or other structural materials to a depth of at least 12 inches. Sandbags may also be used as daily cover at permitted sanitary landfills. Placement of the sand in playgrounds, sandboxes or other areas of direct human contact soon after use in sandbags should be avoided, as the sand may have been exposed to harmful bacteria in floodwaters. Bacteria will dissipate with time and exposure to the elements. Sand could be stockpiled and used for winter road sand, fill, concrete or mortar sand, and other uses.

Sandbags may be stored indefinitely in piles so long as local ordinances are observed. Crushed limestone is considered clean fill and may be used where structurally appropriate.

Sand from broken bags should be prevented from eroding into waterways or storm sewers. If sandbags are emptied of their contents, the bags themselves must be properly disposed of in a permitted disposal facility to reduce the potential for litter problems. Testing will not be required unless obviously contaminated. Follow proper procedures for disposing of sand that appears to have been contaminated by petroleum or other hazardous materials.

For more information contact the department's Solid Waste Management Program at 573-751-5401 or the regional office in your area (see list below).

Sediment and Silt

Sediment and silt are considered clean fill and will not require sampling. If the sediment or silt is known to be contaminated with petroleum products or other chemicals contact the department's Environmental Emergency Response hotline at 573-634-2436.

Storm-Damaged Home Furnishings

- Home furnishings including carpeting, draperies, linens, kitchenware, furniture and mattresses should be disposed of in a municipal solid waste landfill. Contact your local municipality about possible bulk collection.
- Because of toxic fumes, these items must not be open burned.

Structural Debris and Treated Lumber

Concrete, rock, brick and other materials defined as “clean fill” under state law may be buried onsite. Treated wood and painted or coated construction debris shall be handled as shown below.

- Contact municipalities for information on local collection of this material or the location of a centralized drop-off area.
- Material containing asbestos (transite siding, pipe, insulation), tires and other materials that may generate toxic fumes (plastics, synthetic materials and shingles) must not be burned.
- Commercial, institutional, industrial and residential structures with more than four living units (or that are a part of a larger project) must be inspected for asbestos containing materials prior to demolition or renovation activities. Inspections must be conducted by department certified inspectors. Department notification is required prior to demolition or renovation activities of these structures. Asbestos removal may be needed depending upon the type and amount of asbestos materials identified. Lists of inspectors and asbestos contractors may be obtained from the Air Pollution Control Program at 573-751-4817 or at dnr.mo.gov/env/apcp/asbestos/inspectors/index.php and dnr.mo.gov/env/apcp/asbestos/contractors/index.php. Additional information may also be found in the department's publication *How to Handle Asbestos Containing Debris* at dnr.mo.gov/pubs/pub2121.htm.

Tires

Tires must not be burned or buried on-site. Tires should be cut into thirds and buried in a permitted sanitary landfill. You may also contact a local tire retailer for other disposal options or contact a permitted waste tire hauler in your area. A [list of scrap tire haulers](#) may be obtained from the department at dnr.mo.gov/env/swmp/tires/docs/wthaulerlist.pdf. Individuals or municipalities who accumulate more than 500 tires should contact the department's Solid Waste Management Program at 800-361-4827 or 573-751-5401 for guidance.

Untreated wood, vegetation, structural debris and lumber

Wood or untreated lumber may be mulched for on-site use if chippers are available. Untreated lumber does not include painted material, CCA or creosote impregnated materials. Vegetative material may be disposed of in a permitted sanitary or demolition landfill if the material is greater than six inches in diameter. For vegetative material or debris that is less than six inches in diameter, please refer to the department's *Homeowner's Composting Guide* at dnr.mo.gov/env/swmp/composting/index.html or contact your municipality for information on local collection of this material or for centralized drop-off areas.

Open burning of wood may be permitted, although extreme caution is urged, due to possible gas leaks and other storm-related problems. Be sure to contact your local fire authorities prior to any burning. Some local authorities regulate open burning, so check with them first. **Tires or used oil may not be used to start fires.** Straw bales or virgin petroleum products, such as diesel fuel, are acceptable accelerants. **Burning, unless addressed under an executive order or waiver by the department director, will be allowed only when in compliance with the department's open burning rule and with approval of local fire officials. Open burning permits may be required and are obtained by calling the local Missouri Department of Natural Resources' Regional Office nearest you (see list below). Local authorities or permits may impose additional requirements.** The ash may be buried on-site with a minimum two feet of clean soil.

In rural areas, to minimize impact on neighbors when open burning, start fires after 10 a.m. and discontinue burning by 4 p.m. For more detail on the department's open burning rule, please refer to the department's *Facts on Open Burning Under Missouri Regulations* fact sheet at dnr.mo.gov/pubs/pub2047.htm or contact your local regional office for information.

Kansas City Regional Office

500 NE Colbern Road

Lee's Summit, MO 64086-4710

816-251-0700

816-622-7044 fax

Counties served: Andrew, Atchison, Bates, Benton, Buchanan, Caldwell, Cass, Clay, Clinton, Daviess, DeKalb, Gentry, Harrison, Henry, Holt, Jackson, Johnson, Lafayette, Nodaway, Pettis, Platte, Ray and Worth.

Northeast Regional Office

1709 Prospect Drive

Macon, MO 63552-2602

660-385-8000

660-385-8090 fax

Counties served: Adair, Audrain, Boone, Callaway, Carroll, Chariton, Clark, Cole, Cooper, Grundy, Howard, Knox, Lewis, Linn, Livingston, Macon, Marion, Mercer, Moniteau, Monroe, Osage, Pike, Putnam, Ralls, Randolph, Saline, Schuyler, Scotland, Shelby and Sullivan.

Southeast Regional Office

2155 N. Westwood Blvd.

P.O. Box 1420

Poplar Bluff, MO 63901

573-840-9750

573-840-9754 fax

Counties served: Bollinger, Butler, Cape Girardeau, Carter, Crawford, Dent, Dunklin, Howell, Iron, Madison, Maries, Mississippi, New Madrid, Oregon, Pemiscot, Perry, Phelps, Pulaski, Reynolds, Ripley, Scott, Shannon, St. Francois, Ste. Genevieve, Stoddard, Texas, Washington and Wayne.

Southwest Regional Office

2040 W. Woodland

Springfield, MO 65807-5912

417-891-4300

417-891-4399 fax

Counties served: Barry, Barton, Camden, Cedar, Christian, Dade, Dallas, Douglas, Greene, Hickory, Jasper, Laclede, Lawrence, McDonald, Miller, Morgan, Newton, Ozark, Polk, St. Clair, Stone, Taney, Vernon, Webster and Wright.

St. Louis Regional Office

7545 S. Lindbergh, Suite 210

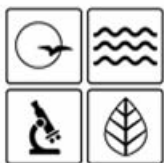
St. Louis, MO 63125

314-416-2960

314-416-2970 fax

Counties served: Franklin, Gasconade, Jefferson, Lincoln, Montgomery, St. Charles and St. Louis.

Nothing in this document may be used to implement any enforcement action or levy any penalty unless promulgated by rule under chapter 536 or authorized by statute.



Missouri Department of Natural Resources

Facts on Open Burning Under Missouri Regulations

Air Pollution Control Program fact sheet

02/2014

Division of Environmental Quality Acting Director: Steve Feeler

PUB02047

Open burning is the burning of any materials in which air contaminants are emitted directly into the air without first passing through a stack or chimney. This fact sheet summarizes allowable and prohibited open burning under Missouri regulations. It does not include open burning restrictions that city or county governments may impose in addition to Missouri's state regulations. Prior to conducting any open burning, businesses and citizens should contact the city or county of jurisdiction for any local restrictions.

The open burning of certain trade wastes and tires is prohibited because the toxic emissions that can be released are harmful to human health. Smoke from fires also typically produces large amounts of small particulate matter that can be inhaled, causing respiratory problems. The burning of common household trash, including paper products and food wastes, can also have severe consequences. Studies have indicated the open burning of an individual household's trash could release pollutants in higher levels than the burning of the trash of thousands of homes by a municipal waste incinerator because the lower combustion temperatures prevent complete incineration. These pollutants can include dioxins, volatile organic compounds, acetaldehyde, formaldehyde, hydrogen chloride and naphthalene. Open burning exposes individuals to toxic emissions that may irritate the eyes, skin and upper respiratory tract. The central nervous system can also be affected causing headaches, dizziness and fatigue.

Because of these potential dangers, the Missouri Department of Natural Resources strongly discourages open burning of any material prior to investigating alternatives. Some rural areas can participate in a "green box" service, which provides a trash collection point near a centrally located county road for local residents to use. Green boxes are usually picked up or emptied once a week. Other options include waste disposal services, waste diversion, recycling and composting. Contact your local Solid Waste Management District for assistance in implementing these safer alternatives to open burning.

Prohibited Open Burning Under State Regulation

Any waste generated by a business, trade, industry, salvage or demolition operation cannot be burned without a permit issued by the Department of Natural Resources or its delegated local agency. Permits will only be considered for untreated wood wastes. Wastes that may not be burned include but are not limited to tires, rubber products, hazardous materials, Styrofoam™, plastics, petroleum-based products, demolition waste, treated wood and any asbestos-containing material.

Allowable Open Burning Under State Regulations

Note: Local governments may have stricter laws and policies

Open Burning of Household Refuse

General Provisions: Missouri allows open burning of household refuse from four dwelling units or less

provided it originates and is burned on the same premises. This exemption does not apply to mobile home parks or apartment complexes. Residential waste is solid waste produced by routine household activities, such as paper waste and garbage from daily activities. This does not include home remodeling wastes, wastes from home businesses, durable goods such as old appliances, carpets or furniture, tires or other non-routine household waste. Materials such as tires or used oil may not be used to start the fires or be burned in the fires.

Kansas City and St. Joseph metropolitan areas: Open burning is allowed provided it occurs within an area zoned for agricultural purposes and outside the portion of the metropolitan areas surrounding the corporate limits of Kansas City and St. Joseph and their bordering municipalities.

Outstate area: No special day, time or location restrictions.

Springfield-Greene County area: Open burning is allowed provided that burning takes place outside the corporate limits of Springfield and only within areas zoned A-1, Agricultural District.

St. Louis metropolitan area: Open burning of household refuse is prohibited in the St. Louis metropolitan area.

Open Burning of Yard Wastes

General Provisions: Missouri allows open burning of yard wastes from sites provided it originates and is burned on the same premises. Materials such as tires or used oil may not be used to start the fires or be burned in the fires. Yard waste includes trees, tree leaves, brush or other vegetation.

Kansas City metropolitan area: Open burning of trees, tree leaves, brush or any other type of vegetation requires an open burning permit.

St. Joseph metropolitan area: Open burning of residential yard wastes is allowed only during a three-week period in spring and during a three-week period in fall between 10 a.m. and 3:30 p.m. The two, three-week periods are to be determined by the city along with state agencies and the state fire marshal.

Outstate area: No special day, time or location restrictions.

Springfield-Greene County area: The City of Springfield requires an open burning permit for the open burning of trees, brush or any other type of vegetation. The City of Springfield prohibits the open burning of tree leaves.

St. Louis metropolitan area: Open burning of trees, tree leaves or brush is allowed only in areas outside of incorporated municipalities from 10 a.m. through 4 p.m., from Sept. 16 and April 14 of each calendar year. These brush piles are limited to a base of 16 square feet.

Open Burning for Fire Training Purposes

Missouri allows fires set for the purpose of training fire fighters provided they are conducted in accordance with National Fire Protection Association Standards 600 and 1403. All fire training exercises involving donated or acquired structures must be conducted in compliance with 40 CFR Part 61 Subpart M, The National Emission Standard for Asbestos. The use of donated or acquired structures for training is discussed in Publication 2029. As noted in Publication 2029, there is a ten working day, minimum, notification period to the Air Pollution Control Program for these activities and all petroleum based products and asbestos containing materials must be removed from any structure that is to be impacted as part of a training exercise. In all cases, timely notification should be provided to the appropriate regional office or delegated local agency.

Open Burning in Agricultural, Natural Resource or Land Management Operations

Missouri allows agricultural burning throughout the state. However, several exceptions apply. Materials such as tires or used oil may not be used to start the fires or be burned in the fires. Any burning that creates a health hazard, nuisance or produces smoke that impairs visibility for those operating motor vehicles or airplanes is prohibited. Contact the St. Louis Regional Office before burning in the St. Louis metropolitan area from April 15 to Sept. 15. Botanical nursery operations or greenhouses are not considered agricultural operations.

Open Burning in Land Clearing Operations

Open burning of tree trunks, tree limbs and vegetation from land clearing operations is allowed without an air curtain destructor or permit in the outstate area if the burning takes place outside the city limits of any incorporated area or municipality and at least 200 yards from the nearest inhabited dwelling. Materials such as tires or used oil may not be used to start the fires or be burned in the fires. Permits containing special conditions may be issued by regional offices or local agencies for sites unable to comply with the requirements above. See the Required Open Burning Permits section below for exceptions in the Springfield-Greene County area, and Kansas City and St. Louis Metropolitan areas.

Open Burning at Wood Processing Facilities

Open burning of untreated wood waste from wood processing facilities is allowed if production is less than 8,000 board-feet per day and the facility was in existence as of March 25, 1976, but has not relocated to a new site. The burning also must be done at least 200 yards from the nearest occupied structure.

Open burning of untreated wood waste from wood processing facilities is allowed if production is less than 8,000 board-feet per day and the facility has relocated or from new wood processing facilities not in existence as of Sept. 18, 1970, and the facility and the burning are at least one mile outside city limits. The burning also must be done at least 200 yards from the nearest occupied structure.

Open Burning for Recreational Purposes

Campfires and other fires used solely for recreational purposes, ceremonial occasions or for outdoor noncommercial preparation of food are allowed in Missouri. Fires shall include only vegetative woody materials or untreated wood products.

Required Open Burning Permits

The open burning of certain trade wastes, primarily untreated wood wastes such as pallets or crates, throughout the state, and vegetation from land clearing operations in the Springfield-Greene County area and the Kansas City and St. Louis Metropolitan areas, may be permitted when it can be shown that open burning is the only feasible method of disposal or that disposal is in the public interest. In a nonattainment area, a permit may be denied, revoked, or suspended when conditions exist where burning would be considered detrimental to air quality standards. The open burning permit requires the facility, in most cases, to use an air curtain destructor.

Commercial and municipal utility tree trimming operations must submit a request to the appropriate regional office for an annually renewable open burning permit. The request must describe the general size, condition and age of the tree trunks and tree limbs to be open burned. Air curtain destructors are generally required at dedicated sites where burning occurs.

Commercial and municipal utility tree trimming operations must submit an application for an open burning permit to the appropriate regional office or local agency.

The information provided in this fact sheet should not be construed to permit open burning that causes or constitutes a public health hazard, nuisance or a hazard to vehicular or air traffic or violates any other rule or statute.

Definitions

St. Louis metropolitan area: The geographical area comprising St. Louis, St. Charles, Jefferson and Franklin counties and the city of St. Louis. These counties are also currently a non-attainment area for ground-level ozone.

Springfield-Greene County area: The geographical area contained within Greene County.

Kansas City metropolitan area: The geographical area comprising Jackson, Cass, Clay, Platte, Ray and Buchanan counties.

Outstate area: The geographical area comprising those counties not contained in the St. Louis metropolitan area, Springfield-Greene County area or the Kansas City metropolitan area.

Air Curtain Destructor: An air pollution control device designed to increase burning efficiency, reducing air contaminant emissions during open burning.

Open Burning Permit: A permit that must be applied for and then granted in order to open burn or open burn with restrictions. Permit applications must be sent to the [Regional Office](#) or local agency that has jurisdiction over your area. Applications are available at www.dnr.mo.gov/forms or any regional or local agency office.

Untreated Wood: Lumber and other wooden materials that have not been chemically treated for resistance to moisture, fire, fungi, insects and other pests or has not otherwise been treated or manufactured with chemicals, or that does not contain adhesives or resins. Untreated wood does not include plywood, particle board, chipboard or wood with other than minimal amounts of paint, coating or finish.

For More Information

Missouri Department of Natural Resources
Air Pollution Control Program
P.O. Box 176, Jefferson City, MO 65102-0176
800-361-4827 or 573-751-4817 office
800-361-4827 fax
www.dnr.mo.gov/env/apcp/index.html

Missouri Department of Natural Resources
Solid Waste Management Program
P.O. Box 176, Jefferson City, MO 65102-0176
800-361-4827 or 573-751-5401 office
573-526-3902 fax
www.dnr.mo.gov/env/swmp/index.html

Kansas City Air Quality Program
Air Quality Section
200 Troost Ave., Suite 3200
Kansas City, MO 64108
816-513-6314

816-513-6173 fax

St. Louis County Department of Health
Air Pollution Control Section
6121 North Hanley Road
St. Louis, MO 63134
314-615-8924

[www.stlouisco.com/HealthandWellness/ EnvironmentalServices/AirPollutionControlProgram](http://www.stlouisco.com/HealthandWellness/EnvironmentalServices/AirPollutionControlProgram)

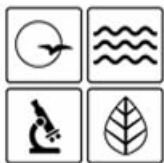
Email: airpollution.doh@stlouisco.com

Springfield Air Quality Control
Department of Environmental Services
P.O. Box 8368
Springfield, MO 65801-8368
417-864-1412

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For more information

Missouri Department of Natural Resources
Air Pollution Control Program
P.O. Box 176
Jefferson City, MO 65102-0176
573-751-4817 or 800-361-4827
<http://dnr.mo.gov/env/apcp/>



Missouri Department of Natural Resources

Natural Disaster Assistance for Missouri Citizens - Emergency Guidance for Hazardous Materials and Hazardous Waste

Department of Natural Resources fact sheet

03/2014

Department of Natural Resources Director: Carol S. Comer

PUB01249

800-361-4827

Damaged or Unusable Hazardous Chemicals at Businesses

Owners, managers and employees returning to a business that has been affected by a natural disaster may find materials or products that are damaged and unusable.

- Products labeled with words such as POISON, DANGER, WARNING or CAUTION contain hazardous chemicals. Materials used in business activity, manufacturing or maintenance may have hazardous characteristics. They may be TOXIC, EXPLOSIVE, IGNITABLE OR CORROSIVE.
- If possible, recover these materials for use for their intended purpose. If this is not possible, the damaged or unusable hazardous materials should be separated from other debris or solid waste and placed in containers so that further human contact and release to the environment is minimized. Permanently mark the outside of the container with the name of the material inside and the potential hazard (example: Endrin Waste – TOXIC).
- Use extreme caution when cleaning up hazardous materials in leaking or damaged containers. Wear protective garments and emergency breathing apparatus if necessary. Do not work around these damaged products in confined or poorly ventilated areas. Obtain professional hazardous materials response and cleanup services if appropriate.
- Storm or building debris that is contaminated with hazardous materials may need to be handled and disposed of as hazardous waste.
- Disposal of hazardous materials as hazardous waste must be in accord with the Missouri Hazardous Waste Management Law and Regulations using a licensed hazardous materials transporter at a permitted hazardous waste disposal facility.
- Contact one of the department's regional offices or the Hazardous Waste Program if specific guidance is needed on determining whether a waste is hazardous and how to properly manage and dispose of the waste.

Drums, Tanks and Barrels

- Most barrels that wash up in a flood are open-burn barrels, trash barrels or dock barrels.

- There may be danger in sealed barrels, drums or tanks with unknown contents. These should be handled by trained professionals. You can report sealed drums, barrels or tanks of unknown contents [online](#) or by calling the department's Environmental Emergency Response staff at 573-634-2436.
- If a propane tank is in flood debris, a company distributing gas may be able to identify the tank and return it to its proper location. Propane tanks have serial numbers that help to identify owners and locations.
- If propane tanks are present or are found and there is reason to believe that they may be unsafe, contact the local emergency management coordinator, or the department's Environmental Emergency Response staff at 800-361-4827 or 573-634-2436.
- If an above-ground storage tank is damaged, follow your facility emergency response procedures, and contact the local emergency management coordinator or the department's Environmental Emergency Response staff at 800-361-4827 or 573-634-2436.

Nothing in this document may be used to implement any enforcement action or levy any penalty unless promulgated by rule under chapter 536 or authorized by statute.

For more information

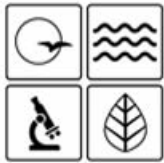
Missouri Department of Natural Resources

P.O. Box 176

Jefferson City, MO 65102-0176

800-361-4827 or 573-751-1300

<http://dnr.mo.gov>



Missouri Department of Natural Resources

Management of Petroleum and Other Materials from Damaged Boats

Natural disasters occurring near bodies of water can damage docks and marinas and cause boats to become submerged. This fact sheet is a guide for managing petroleum and solid wastes when removing damaged boats. Users of this information may be boat owners, marina owners or anyone providing service to them.

Petroleum Material

Federal law requires the responsible party to report any release of petroleum material if the petroleum material reaches or threatens any waterway (National Response Center, 800-424-8802.) Also, you must contact the department's 24-Hour Environmental Emergency Response Hotline at 573-634-2436, if you have a petroleum product release to soil of more than 50 gallons (25 gallons, if the release is from an underground storage tank at a marina) or a release of any quantity of petroleum material into any waterway.

The petroleum material (gasoline, diesel fuel, lubricants), or any water mixture of the petroleum material from inside the boats may be hazardous because of one or more of the following characteristics:

- Ignitability - flashpoint of 140 degrees Fahrenheit or less.
- Benzene - 0.5 milligrams per liter or more when tested according to the Toxicity Characteristic Leaching Procedure (TCLP).
- Lead - 5 milligrams per liter or more as shown by a TCLP.

In general, hazardous wastes must be managed according to the Missouri Hazardous Waste Management Law and Regulations. The regulations state how the materials must be packaged, marked and labeled, how long they may be stored on-site, and how they must be transported and disposed. For more information see *Hazardous Waste Information Sources* at the end of this fact sheet.

The petroleum material inside the boats must be removed and characterized for use or disposal. If this is not done and the material in the boat is hazardous, you will be in violation of hazardous waste regulations. If the fuel lines or tanks appear to be damaged, the petroleum material should be removed from the boat prior to transport.

For wastes from inside fuel tanks, some management options and alternatives to disposal exist and are explained below:

Use or Recycle

Raw Product

If raw product is used for its intended purpose without interim processing, it is not a waste. Some processing of the waste may be necessary to recover product for use. A hazardous waste permit is required to treat hazardous waste. However, if option a, b, or c below is done at the damaged boat location, no hazardous waste permit is needed:

- Gravity separation.
- Simple filtration to remove particulates.

Note: The filter media may become hazardous waste.

- Use of an oil and water separator.

Note: The water may be hazardous waste.

After any of the activities described above, the recovered product may be resold if it meets Missouri Department of Agriculture fuel specifications; may be used in your own boat or vehicle if you choose to do so; or it may be sent to a petroleum refinery or terminal if the refinery or terminal accepts it for use in the petroleum refining process. In addition, recovered product may be sent to a fuel blender provided that no further reclamation or separation is necessary by the blender.

If it is necessary to store the water phase generated from the activities described above, the water should be stored in closed containers in good condition and be clearly marked “Petroleum Contaminated Water” until a hazardous waste determination can be made. If the wastewater is determined to be hazardous, it must be stored in accordance with all applicable hazardous waste rules and regulations until appropriately disposed or discharged. For information about managing the water phase, see management option numbers 2, 3, 4 or 6.

Petroleum Refinery/Terminal

Petroleum Wastes

If each of the following conditions is met, petroleum wastes are exempt from solid and hazardous waste regulations:

- The petroleum refinery or terminal accepts the waste for reuse or recycling.
- The transporter takes it from the generator’s location directly to the refinery or terminal (no interim storage or treatment facilities used except for transfer facilities meeting hazardous waste regulations).
- The material is reused in the petroleum refining process.

The generator (boat owner, marina owner, etc.) must follow Department of Transportation regulations when shipping the material to the refinery or terminal. To properly claim this exemption, the tank or property owner must keep documents showing his or her agreement with the refinery with records showing when the waste was generated and taken to the refinery or terminal.

Domestic Sewage Exemption

Tank Water and Rinsate from the boats

If the generator has connections to a sanitary sewer on-site and has written permission from the Publicly Owned Treatment Works (POTW) operator to place the waste into the sewer, the waste is exempt from solid and hazardous waste regulation once it is discharged.

Be aware that not all sewer systems go to a POTW system. Hazardous wastewater must be managed in accordance with all applicable hazardous waste rules and regulations until it is discharged. If the material cannot be discharged as is, the treatment plant operator may agree to accept it after it has first been gravity separated, filtered or run through an oil and water separator. The recovered product may then be used if it meets fuel specifications or may be sent to a refinery or terminal.

Note: The filter media may be hazardous waste.

You should also take care to avoid spills and releases that would have to be cleaned up. Any material contaminated by a spill would have to be tested prior to disposal and appropriately disposed.

Contact the department's Water Protection Program to ask if the process you intend to use requires a permit. Installing and operating systems to treat hazardous wastewater requires a permit from the Water Protection Program. A general permit for treatment and discharge of "Fuel Spill Cleanup" wastewater is available for many such projects. Site specific permits may also be required if necessary to protect waters of the state, which includes groundwater.

Permit by Rule POTW

Tank Water and Rinsate from the boats

The wastewater may be transported to a POTW using a licensed hazardous waste transporter and manifests. The POTW must be in compliance with all terms of the Permit by Rule found in 40 CFR 270.60(c). At the time this document was printed, there were no POTWs in Missouri that met the Permit by Rule standards. There are POTWs in other states that meet the Permit by Rule standards.

Sanitary Landfill

Non-hazardous Waste from the boats

If petroleum waste inside the boat is tested and found to be nonhazardous, it may be disposed in a permitted sanitary landfill subject to special waste disposal requirements.

Note: Landfills cannot accept waste with free liquid. The generator may add nonhazardous absorbents.

The generator must contact the individual landfills to determine what conditions are placed on special waste and in what form the landfill may be willing to accept it.

Treatment, Storage or Disposal Facility

Hazardous Wastes from the boats

If the waste is hazardous and none of the above mentioned management options are available or possible, the waste must be sent to a Missouri certified resource recovery facility or to a Treatment, Storage or Disposal facility permitted to accept the hazardous waste. Cement kilns or fuel blenders that are permitted to accept hazardous waste may be used. The waste must be managed in accordance with all applicable hazardous waste rules and regulations.

A list of commercial Hazardous Waste Treatment, Storage and Disposal facilities in Missouri is available from the department's Hazardous Waste Program or visit [Missouri Commercial Hazardous Waste Facilities, List--PUB968](#).

Do's

- Use petroleum products for their originally intended use if possible.
- Recycle reclaimable petroleum by returning it to a petroleum refinery or terminal if possible.
- Avoid spills and releases. Containment booms, absorbent booms and pads should be used as a precaution if any petroleum material is removed from the boats while on the water.
- Clean up any spills and releases immediately. Dispose of product-contaminated soil, debris, booms, and pads at a sanitary landfill as soon as possible. Obtain the landfill operator's approval before taking the material off-site. Under certain conditions soil may be thermally treated with prior approval of the department's Air Pollution Control Program and Hazardous Waste Program.
- Keep copies of shipping papers and agreements with POTWs, petroleum refineries or treatment storage and disposal facilities that document your management of the waste.

Don'ts

- Don't consider waste gasoline, diesel, lubricants, water, sludge and scale to be "used oil." It does not meet the regulatory definition of "used oil."
- Don't assume wastes from the fuel tanks are nonhazardous. In most cases laboratory analysis will be required to prove the wastes are nonhazardous unless the wastes are exempt from hazardous waste regulation by proper management under options 1, 2 or 3 in this fact sheet.
- Don't dispose of petroleum contaminated materials in storm sewers or septic tanks.
- Don't dispose on soil or in surface water.
- Don't use for vegetation control.
- Don't use to start brush pile fires or tire fires.
- Don't treat by air sparging, bubbling, agitation or otherwise driving air through the waste to lower the benzene concentration (i.e., illegal without a hazardous waste treatment permit).
- Don't deliberately dilute the waste or add material to it for the purpose of making it nonhazardous.
- Don't take the waste to another site for storage or treatment before sending it to the refinery or terminal.
- Don't remove a tank that has not been properly cleaned, purged and made inert from the site.
- Don't use engine exhaust to inert a fuel tank. This is not effective and can be dangerous.
- Don't store hazardous waste greater than 90 days (180 days if small quantity generator).

Test Methods

Flashpoint - Pensky-Martens Closed Cup Tester, Method in ASTM - Standard D-93-79 or D-93-80, or as determined by an equivalent test method approved by the Administrator under procedures set forth in 40 CFR 260.20 and 260.21.

Test for Free Liquids - Paint Filter Liquids Test - Method 9005 - Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods, Publication SW-846 of the U.S. Environmental Protection Agency.

Toxicity Characteristic Leaching Procedure (TCLP) – Method 1311. Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods Publication SW-846 of the U.S. Environmental Protection Agency.

Boats and Related Material

All solid waste originating from damaged docks or boats must be removed from the water and properly salvaged, recycled or disposed per Section 260.210.1 of the Missouri Solid Waste Management Law. Also, per Water Quality Standards of 10 CSR 20-7.031, waters shall be free from oil, scum, floating debris, used tires, car bodies, appliances, demolition debris, used vehicles or equipment and solid waste. In summary, sunken or damaged boats cannot be abandoned in the water.

The department encourages salvaging and recycling of waste wherever possible. Scrap metal may be taken to a scrap metal yard. Unencapsulated dock foam may be recycled, or disposed of in a permitted landfill or transfer station. Remaining solid waste must be taken for disposal at a permitted landfill or transfer station. For more information on recycling dock foam or other waste management questions or options, contact the department's Solid Waste Management Program. Permitted landfills and transfer stations are listed on the program's website at www.dnr.mo.gov/env/swmp/facilities/sanlist.htm and www.dnr.mo.gov/env/swmp/facilities/transferlist.htm.

Hazardous Waste Information Sources

Missouri Secretary of State

The Missouri Hazardous Waste Management Law and Regulations are available from the Missouri Secretary of State's Office. Call 573-751-4015.

Missouri Department of Natural Resources publications

www.dnr.mo.gov/pubs/index.html

- [Hazardous Waste in Missouri, Fact Sheet--PUB919](#)
- [Does Your business Generate Hazardous Wastes?, Fact Sheet--PUB117](#)
- [Management of Conditionally Exempt Small Quantities of Hazardous Waste, Fact Sheet--PUB128](#)

For More Information

Missouri Department of Natural Resources Hazardous Waste Program

P.O. Box 176

Jefferson City, MO 65102 0176

800-361 4827 or 573-751-3176

573-751-7869 fax

www.dnr.mo.gov/env/hwp/index.html

Missouri Department of Natural Resources Air Pollution Control Program

P.O. Box 176,

Jefferson City, MO 65102-0176

800-361-4827 or 573-751-4817 office

573-751-2706 fax

www.dnr.mo.gov/env/apcp/index.html

Missouri Department of Natural Resources Solid Waste Management Program

P.O. Box 176,

Jefferson City, MO 65102-0176

800-361-4827 or 573-751-5401

573-526-3902 fax

www.dnr.mo.gov/env/swmp/index.html

Missouri Department of Natural Resources Water Protection Program

P.O. Box 176,

Jefferson City, MO 65102-0176

800-361-4827 or 573-751-1300 office

573-751-9396 fax

www.dnr.mo.gov/env/wpp/index.html

Transportation Questions

Missouri Department of Economic Development - Division of Motor Carrier and Railroad Safety. Call 573-751-7117.

Nothing in this document may be used to implement any enforcement action or levy any penalty unless promulgated by rule under chapter 536 or authorized by statute.

For more information

Missouri Department of Natural Resources

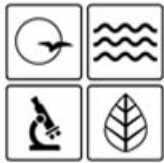
Environmental Services Program

P.O. Box 176

Jefferson City, MO 65102-0176

573-526-3315

<http://dnr.mo.gov/env/esp/>



Missouri Department of Natural Resources

Natural Disaster Assistance for Missouri Citizens - How to Properly Dispose of Sandbags

Disposal of Sandbags after Flooding

The department is providing the following guidance for handling sandbags after a flood:

- Placement of the sand in playgrounds, sandboxes or other areas of direct human contact soon after use in sandbags should be avoided, as the sand may have been exposed to harmful bacteria in floodwaters.
- Do not dump the sand or sandbag into a waterway.
- Sandbags may be used as clean fill material so long as they are subsequently covered with a layer of soil or other structural materials to a depth of at least 12 inches.
- Sandbags may also be used as daily cover at permitted sanitary landfills.
- Sand could be stockpiled and used for winter road sand, fill, concrete or mortar sand, and other uses.
- Sandbags may be stored indefinitely in piles so long as local ordinances are observed.
- Crushed limestone is considered clean fill and may be used where structurally appropriate.
- Sand from broken bags should be prevented from eroding into waterways or storm sewers. If sandbags are emptied of their contents, the bags themselves must be properly disposed of in a permitted disposal facility to reduce the potential for litter problems. Testing will not be required unless obviously contaminated. Follow proper procedures for disposing of sand that appears to have been contaminated by petroleum or other hazardous materials.

For more information contact the department's Solid Waste Management Program at 573-751-5401 or the regional office in your area (see list below).

Regional Offices

The Department of Natural Resources' Regional Offices provide field inspections, complaint investigation and front-line troubleshooting, problem solving and compliance assistance on environmental issues and emergencies.

Kansas City Regional Office

500 NE Colbern Road

Lee's Summit, MO 64086-4710

816-251-0700

816-622-7044 fax

Counties served: Andrew, Atchison, Bates, Benton, Buchanan, Caldwell, Cass, Clay, Clinton, Daviess, DeKalb, Gentry, Harrison, Henry, Holt, Jackson, Johnson, Lafayette, Nodaway, Pettis, Platte, Ray and Worth.

Northeast Regional Office

1709 Prospect Dr.

Macon, MO 63552-2602

660-385-8000

660-385-8090 fax

Counties served: Adair, Audrain, Boone, Callaway, Carroll, Chariton, Clark, Cole, Cooper, Grundy, Howard, Knox, Lewis, Linn, Livingston, Macon, Marion, Mercer, Moniteau, Monroe, Osage, Pike, Putnam, Ralls, Randolph, Saline, Schuyler, Scotland, Shelby and Sullivan.

Southeast Regional Office

2155 N. Westwood Blvd.

P.O. Box 1420

Poplar Bluff, MO 63901

573-840-9750

573-840-9754 fax

Counties served: Bollinger, Butler, Cape Girardeau, Carter, Crawford, Dent, Dunklin, Howell, Iron, Madison, Maries, Mississippi, New Madrid, Oregon, Pemiscot, Perry, Phelps, Pulaski, Reynolds, Ripley, Scott, Shannon, St. Francois, Ste. Genevieve, Stoddard, Texas, Washington and Wayne.

Southwest Regional Office

2040 W. Woodland

Springfield, MO 65807-5912

417-891-4300

417-891-4399 fax

Counties served: Barry, Barton, Camden, Cedar, Christian, Dade, Dallas, Douglas, Greene, Hickory, Jasper, Laclede, Lawrence, McDonald, Miller, Morgan, Newton, Ozark, Polk, St. Clair, Stone, Taney, Vernon, Webster and Wright.

St. Louis Regional Office

7545 S. Lindbergh, Suite 210

St. Louis, MO 63125

314-416-2960

314-416-2970 fax

Counties served: Franklin, Gasconade, Jefferson, Lincoln, Montgomery, St. Charles and St. Louis.

Nothing in this document may be used to implement any enforcement action or levy any penalty unless promulgated by rule under chapter 536 or authorized by statute.

For more information

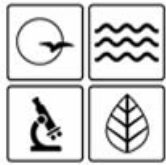
Missouri Department of Natural Resources

P.O. Box 176

Jefferson City, MO 65102-0176

800-361-4827 or 573-751-1300

<http://dnr.mo.gov>



Missouri Department of Natural Resources

How to
Handle

Asbestos Containing Debris

Asbestos

Asbestos is a naturally occurring mineral fiber. Due to its unique properties, it was used in a number of different building materials into the 1970s and may still be found in some products currently being manufactured. It is estimated that manufacturers used asbestos in more than 3,000 different commercial applications.

Examples of these materials include:

- Cementitious siding and wallboard (transite)
- Asphalt and vinyl floor tile and sheet flooring
- Flooring mastics
- Textured paints
- Acoustical plaster
- Ceiling tiles and panels
- Fireproofing materials
- Heater curtains
- Blown-in insulation
- Boiler insulation
- HVAC duct insulation
- Pipe insulation
- Chalkboards
- Roofing shingles and felts
- Joint compound spackling compounds
- Brake pads

Potential Health Effects from Asbestos Exposure

There is no known safe level of asbestos exposure. Asbestos fibers are very small and can migrate through the body's natural defense system into the lungs, where they can cause damage to the respiratory system.

There are three major health risks associated with asbestos exposure:

- Asbestosis, which is a scarring of the lungs.
- Mesothelioma, which is a cancer of the lining of the lungs and the abdominal cavity.
- Lung cancer.

Categories of Asbestos Containing Materials

There are three categories of asbestos containing materials:

- Friable asbestos containing materials.
- Category I non-friable asbestos containing materials.
- Category II non-friable asbestos containing materials.

Friable asbestos containing material is any material containing greater than one percent asbestos that, when dry, can be crumbled, pulverized or reduced to powder by hand pressure. These materials will more readily produce asbestos fibers if disturbed or removed. Examples of friable materials include sprayed or troweled materials such as acoustical ceiling spray, boiler insulation, paper pipe insulation and drop-in ceiling tile.

Category I non-friable asbestos containing material is asbestos containing packings, gaskets, resilient floor coverings and asphalt roofing products containing more than one percent asbestos. The asbestos in Category I materials is more tightly bound in the matrix of the material. These materials are less likely to generate asbestos fibers if they are in good condition and are not subject to sanding, grinding, cutting or abrading. Also, any vapor barrier on resilient floor coverings such as sheet vinyl or tile is considered friable asbestos if the flooring is removed in a manner that causes the vapor barrier to delaminate or separate from the covering.

Category II non-friable asbestos containing material is any non-friable material, other than category I materials, that contain more than one percent asbestos. The asbestos tends to be more tightly bound in the matrix of these materials. If not removed prior to demolition or renovation these materials have a higher probability of becoming crumbled, pulverized or reduced to powder, which may make it subject to regulation. If removed properly, these materials are not regulated by the department. Examples of category II materials include transite wall or roof shingles, wall board or cement pipe.

Identifying Asbestos Containing Materials

The department requires institutional, commercial, public, industrial or residential structures, excluding certain residential structures to be inspected for the presence of asbestos prior to being renovated or demolished. This inspection must be performed by a Missouri-certified asbestos inspector.

In the case of a natural disaster where a building has been damaged, and may be structurally unstable, alternate inspection and notification requirements may apply. In this event, contact the Air Pollution Control Program or your Regional Office to discuss requirements. The building and debris should be kept wet to minimize the potential for any emissions of asbestos to occur. After the danger of the unsafe structure has been eliminated, an inspection of the resulting debris may be required.

For residential structures that contain four or fewer dwelling units there is an exemption from this inspection requirement, unless the demolition or renovation project involves multiple buildings under the control of the same owner or operator, or the structure is to be burned as part of a fire training exercise. However, this does not mean that asbestos found in these exempt structures is not dangerous if disturbed. If you suspect damaged material might contain asbestos, the department recommends you not further disturb the material until it can be determined if it is asbestos containing or not. For the purpose of identifying asbestos containing materials, the department recommends you obtain the services of a Missouri certified asbestos inspector to positively identify

any suspect materials or that you assume the material contains asbestos. It is recommended any debris be kept wet until an adequate determination of the presence of asbestos can be made.

Requirements for Removal of Regulated Asbestos

If the demolition or renovation to an institutional, commercial, public, industrial or residential structure (excluding exempt residential structures as described in the preceding section) will involve greater than 160 square feet, 260 linear feet, or 35 cubic feet of regulated asbestos containing materials, then the removal of the asbestos is regulated by the department. For projects that meet these thresholds, a Missouri registered contractor and Missouri certified asbestos workers must be used to perform the abatement of the material. If buildings have been demolished or destroyed by a natural disaster prior to removing the asbestos, then any debris subsequently contaminated by asbestos must also be handled as asbestos containing waste. The department's Air Pollution Control Program should be contacted for guidance.

The department must be notified about all abatement projects involving greater than a threshold amount of asbestos and for all demolition projects regardless of whether asbestos is present or not. Typical notification requirements would require a 10 working day notification. However, in the case of buildings that have been damaged as a result of a natural disaster, the department will waive this 10-day notice requirement. However, notice should be sent to the department within 24 hours of either starting a regulated abatement or demolition project.

There is no requirement to use a Missouri registered contractor for asbestos removal for unregulated demolition or renovation projects that involve less than the threshold levels listed above for friable asbestos containing materials, non-friable asbestos containing materials or asbestos containing materials from exempt residential structures. However, using trained professionals for the removal of asbestos containing materials is recommended.

Other agencies, such as the Occupational Safety and Health Administration (OSHA), also have requirements for the safe handling of asbestos containing materials. For OSHA related requirements contact OSHA in St. Louis at 800-392-7743 or in Kansas City at 816-483-9531.

Precautions to Take to Minimize Asbestos Exposure

If damaged materials are suspected of containing asbestos, it is recommended the materials not be disturbed until it can be properly identified. If you elect to remove or disturb asbestos containing materials from unregulated demolition or renovation projects, proper precautions should be taken to minimize any potential exposure.

1. Seal off work areas where asbestos containing materials may be present, and take care not to track asbestos dust into other areas.
2. Always wear an approved respirator and disposable protective clothing. Decontaminate yourself before going into uncontaminated areas.
3. When working with asbestos containing material, keep the material wet to keep emission of asbestos fibers to a minimum.
4. Avoid breaking the material into smaller pieces. While smaller pieces may be easier to handle, this will increase the possibility of asbestos emissions.

5. Place any material you remove into appropriate leak tight disposal packaging or containers while the material is wet.
6. Transport the asbestos waste material to an approved disposal facility in an enclosed dumpster or truck lined with plastic sheeting.

Waste Disposal Requirements for Asbestos Contaminated Debris

All asbestos containing waste, whether from a regulated or unregulated demolition or renovation project is a waste material and must be disposed of at a permitted solid waste disposal facility that will accept the material. Asbestos containing materials should never be burned for disposal, as this will generate the emissions of asbestos fibers into the air, and is in violation of the department's open burning requirements. For regulated projects, the department has stringent requirements for the packaging and labeling of asbestos containing waste materials. While the department has no requirements for packaging and labeling of asbestos containing waste materials from unregulated projects, you should still make arrangement with the disposal facility that you intend to use to determine what packaging and labeling requirements they may have for acceptance of the materials at their facility.

Locating Trained Asbestos Professionals

The Missouri Department of Natural Resources' Air Pollution Control Program maintains lists of all Missouri-certified asbestos inspectors and all Missouri registered asbestos abatement contractors. These lists are available on the department's website at <http://dnr.mo.gov/env/apcp/asbestos/> or by contacting the Air Pollution Control Program at 573-751-4817.

Asbestos Contact Information

For more information on the department's asbestos requirements, you may contact the department's Air Pollution Control Program or one of the department's other offices:

Local Agencies

In Missouri, there are two local agencies that have an agreement with the department to enforce Missouri's asbestos requirements as well as local ordinances. These local agencies are:

Two additional local agencies do not enforce Missouri's asbestos requirements but may have local ordinances concerning asbestos which they enforce:

Prior to performing a project in one of these jurisdictions, you should contact the appropriate agency to determine if any additional requirements apply.

Missouri Department of Natural Resources
Air Pollution Control Program
P.O. Box 176
Jefferson City, MO 65102
573-751-4817
573-751-2706 fax
<http://www.dnr.mo.gov/env/apcp/>

Kansas City Regional Office

500 NE Colbern Road
 Lee's Summit, MO 64086-4710
 816-251-0700
 816-622-7044 fax

Northeast Regional Office
 1709 Prospect Dr.
 Macon, MO 63552-2602
 660-385-8000
 660-385-8090 fax

St. Louis Regional Office
 7545 S. Lindbergh, Suite 210
 St. Louis, MO 63125
 314-416-2960
 314-416-2970 fax

Southeast Regional Office
 2155 N. Westwood Blvd.
 Poplar Bluff, MO 63901
 573-840-9750
 573-840-9754 fax

Southwest Regional Office
 2040 W. Woodland
 Springfield, MO 65807-5912
 417-891-4300
 417-891-4399 fax

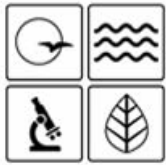
Additional Asbestos Related Guidance Documents

For more specific information about the department's requirements in regard to asbestos, reference the additional guidance documents listed below or contact the department or appropriate local agency at the contact information found in this fact sheet.

These documents are available for free download from the department's website at www.dnr.mo.gov/pubs/index.html.

- [Asbestos Requirements for Demolition and Renovation Projects, Fact Sheet--PUB2157](#)
- [Asbestos: What is it and why is it a concern?, Fact Sheet--PUB2077](#)
- [Management of Nonfriable Asbestos Containing Materials, Fact Sheet--PUB2156](#)
- [Requirements for Fire Training Exercises Involving Structures, Fact Sheet--PUB2029](#)

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Missouri Department of Natural Resources

Natural Disaster Assistance for Missouri Citizens Contact Phone Numbers

The Department of Natural Resources realizes a natural disaster will spawn environmentally related problems. Staff are available to help you. For more information about the following concerns, please contact department staff at the numbers below:

Environmental Emergencies should be reported to 573-634-2436.

Missouri Department of Natural Resources' Regional Offices:

Other Government Agencies

Missouri State Highway Patrol Troop Headquarters

Troop A	Lee's Summit	816-622-0800
Troop B	Macon	660-385-2132
Troop C	Weldon Spring	636-300-2800
Troop D	Springfield	417-895-6868
Troop E	Poplar Bluff	573-840-9500
Troop F	Jefferson City	573-751-1000
Troop G	Willow Springs	417-469-3121
Troop H	St. Joseph	816-387-2345
Troop I	Rolla	573-368-2345

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For more information

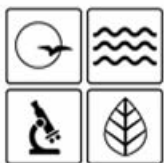
Missouri Department of Natural Resources

P.O. Box 176

Jefferson City, MO 65102-0176

800-361-4827 or 573-751-1300

<http://dnr.mo.gov>



Missouri Department of Natural Resources

Management of Petroleum and Other Materials from Damaged Boats

Environmental Services Program fact sheet

02/2014

Division of Environmental Quality Acting Director: Steve Feeler

PUB02204

Natural disasters occurring near bodies of water can damage docks and marinas and cause boats to become submerged. This fact sheet is a guide for managing petroleum and solid wastes when removing damaged boats. Users of this information may be boat owners, marina owners or anyone providing service to them.

Petroleum Material

Federal law requires the responsible party to report any release of petroleum material if the petroleum material reaches or threatens any waterway (National Response Center, 800-424-8802.) Also, you must contact the department's 24-Hour Environmental Emergency Response Hotline at 573-634-2436, if you have a petroleum product release to soil of more than 50 gallons (25 gallons, if the release is from an underground storage tank at a marina) or a release of any quantity of petroleum material into any waterway.

The petroleum material (gasoline, diesel fuel, lubricants), or any water mixture of the petroleum material from inside the boats may be hazardous because of one or more of the following characteristics:

- Ignitability - flashpoint of 140 degrees Fahrenheit or less.
- Benzene - 0.5 milligrams per liter or more when tested according to the Toxicity Characteristic Leaching Procedure (TCLP).
- Lead - 5 milligrams per liter or more as shown by a TCLP.

In general, hazardous wastes must be managed according to the Missouri Hazardous Waste Management Law and Regulations. The regulations state how the materials must be packaged, marked and labeled, how long they may be stored on-site, and how they must be transported and disposed. For more information see *Hazardous Waste Information Sources* at the end of this fact sheet.

The petroleum material inside the boats must be removed and characterized for use or disposal. If this is not done and the material in the boat is hazardous, you will be in violation of hazardous waste regulations. If the fuel lines or tanks appear to be damaged, the petroleum material should be removed from the boat prior to transport. For wastes from inside fuel tanks, some management options and alternatives to disposal exist and are explained below:

Use or Recycle

Raw Product

If raw product is used for its intended purpose without interim processing, it is not a waste. Some processing of the waste may be necessary to recover product for use. A hazardous waste permit is required to treat hazardous waste. However, if option a, b, or c below is done at the damaged boat location, no hazardous waste permit is needed:

- Gravity separation.
- Simple filtration to remove particulates.

Note: The filter media may become hazardous waste.

- Use of an oil and water separator.

Note: The water may be hazardous waste.

After any of the activities described above, the recovered product may be resold if it meets Missouri Department of Agriculture fuel specifications; may be used in your own boat or vehicle if you choose to do so; or it may be sent to a petroleum refinery or terminal if the refinery or terminal accepts it for use in the petroleum refining process. In addition, recovered product may be sent to a fuel blender provided that no further reclamation or separation is necessary by the blender.

If it is necessary to store the water phase generated from the activities described above, the water should be stored in closed containers in good condition and be clearly marked “Petroleum Contaminated Water” until a hazardous waste determination can be made. If the wastewater is determined to be hazardous, it must be stored in accordance with all applicable hazardous waste rules and regulations until appropriately disposed or discharged. For information about managing the water phase, see management option numbers 2, 3, 4 or 6.

Petroleum Refinery/Terminal

Petroleum Wastes

If each of the following conditions is met, petroleum wastes are exempt from solid and hazardous waste regulations:

- The petroleum refinery or terminal accepts the waste for reuse or recycling.
- The transporter takes it from the generator’s location directly to the refinery or terminal (no interim storage or treatment facilities used except for transfer facilities meeting hazardous waste regulations).
- The material is reused in the petroleum refining process.

The generator (boat owner, marina owner, etc.) must follow Department of Transportation regulations when shipping the material to the refinery or terminal. To properly claim this exemption, the tank or property owner must keep documents showing his or her agreement with the refinery with records showing when the waste was generated and taken to the refinery or terminal.

Domestic Sewage Exemption

Tank Water and Rinsate from the boats

If the generator has connections to a sanitary sewer on-site and has written permission from the Publicly Owned Treatment Works (POTW) operator to place the waste into the sewer, the waste is exempt from solid and hazardous waste regulation once it is discharged.

Be aware that not all sewer systems go to a POTW system. Hazardous wastewater must be managed in accordance with all applicable hazardous waste rules and regulations until it is discharged. If the material cannot be discharged as is, the treatment plant operator may agree to accept it after it has first been gravity separated, filtered or run through an oil and water separator. The recovered product may then be used if it meets fuel specifications or may be sent to a refinery or terminal.

Note: The filter media may be hazardous waste.

You should also take care to avoid spills and releases that would have to be cleaned up. Any material contaminated by a spill would have to be tested prior to disposal and appropriately disposed.

Contact the department's Water Protection Program to ask if the process you intend to use requires a permit. Installing and operating systems to treat hazardous wastewater requires a permit from the Water Protection Program. A general permit for treatment and discharge of "Fuel Spill Cleanup" wastewater is available for many such projects. Site specific permits may also be required if necessary to protect waters of the state, which includes groundwater.

Permit by Rule POTW

Tank Water and Rinsate from the boats

The wastewater may be transported to a POTW using a licensed hazardous waste transporter and manifests. The POTW must be in compliance with all terms of the Permit by Rule found in 40 CFR 270.60(c). At the time this document was printed, there were no POTWs in Missouri that met the Permit by Rule standards. There are POTWs in other states that meet the Permit by Rule standards.

Sanitary Landfill

Non-hazardous Waste from the boats

If petroleum waste inside the boat is tested and found to be nonhazardous, it may be disposed in a permitted sanitary landfill subject to special waste disposal requirements.

Note: Landfills cannot accept waste with free liquid. The generator may add nonhazardous absorbents.

The generator must contact the individual landfills to determine what conditions are placed on special waste and in what form the landfill may be willing to accept it.

Treatment, Storage or Disposal Facility

Hazardous Wastes from the boats

If the waste is hazardous and none of the above mentioned management options are available or possible, the waste must be sent to a Missouri certified resource recovery facility or to a Treatment, Storage or Disposal facility permitted to accept the hazardous waste. Cement kilns or fuel blenders that are permitted to accept hazardous waste may be used. The waste must be managed in accordance with all applicable hazardous waste rules and regulations.

A list of commercial Hazardous Waste Treatment, Storage and Disposal facilities in Missouri is available from the department's Hazardous Waste Program or visit [Missouri Commercial Hazardous Waste Facilities, List--PUB968](#).

Do's

- Use petroleum products for their originally intended use if possible.
- Recycle reclaimable petroleum by returning it to a petroleum refinery or terminal if possible.
- Avoid spills and releases. Containment booms, absorbent booms and pads should be used as a precaution if any petroleum material is removed from the boats while on the water.
- Clean up any spills and releases immediately. Dispose of product-contaminated soil, debris, booms, and pads at a sanitary landfill as soon as possible. Obtain the landfill operator's approval before taking the material off-site. Under certain conditions soil may be thermally treated with prior approval of the department's Air Pollution Control Program and Hazardous Waste Program.
- Keep copies of shipping papers and agreements with POTWs, petroleum refineries or treatment storage and disposal facilities that document your management of the waste.

Don'ts

- Don't consider waste gasoline, diesel, lubricants, water, sludge and scale to be "used oil." It does not meet the regulatory definition of "used oil."
- Don't assume wastes from the fuel tanks are nonhazardous. In most cases laboratory analysis will be required to prove the wastes are nonhazardous unless the wastes are exempt from hazardous waste regulation by proper management under options 1, 2 or 3 in this fact sheet.
- Don't dispose of petroleum contaminated materials in storm sewers or septic tanks.
- Don't dispose on soil or in surface water.
- Don't use for vegetation control.
- Don't use to start brush pile fires or tire fires.
- Don't treat by air sparging, bubbling, agitation or otherwise driving air through the waste to lower the benzene concentration (i.e., illegal without a hazardous waste treatment permit).
- Don't deliberately dilute the waste or add material to it for the purpose of making it nonhazardous.
- Don't take the waste to another site for storage or treatment before sending it to the refinery or terminal.
- Don't remove a tank that has not been properly cleaned, purged and made inert from the site.
- Don't use engine exhaust to inert a fuel tank. This is not effective and can be dangerous.
- Don't store hazardous waste greater than 90 days (180 days if small quantity generator).

Test Methods

Flashpoint - Pensky-Martens Closed Cup Tester, Method in ASTM - Standard D-93-79 or D-93-80, or as determined by an equivalent test method approved by the Administrator under procedures set forth in 40 CFR 260.20 and 260.21.

Test for Free Liquids - Paint Filter Liquids Test - Method 9005 - Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods, Publication SW-846 of the U.S. Environmental Protection Agency.

Toxicity Characteristic Leaching Procedure (TCLP) – Method 1311. Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods Publication SW-846 of the U.S. Environmental Protection Agency.

Boats and Related Material

All solid waste originating from damaged docks or boats must be removed from the water and properly salvaged, recycled or disposed per Section 260.210.1 of the Missouri Solid Waste Management Law. Also, per Water Quality Standards of 10 CSR 20-7.031, waters shall be free from oil, scum, floating debris, used tires, car bodies, appliances, demolition debris, used vehicles or equipment and solid waste. In summary, sunken or damaged boats cannot be abandoned in the water.

The department encourages salvaging and recycling of waste wherever possible. Scrap metal may be taken to a scrap metal yard. Unencapsulated dock foam may be recycled, or disposed of in a permitted landfill or transfer station. Remaining solid waste must be taken for disposal at a permitted landfill or transfer station. For more information on recycling dock foam or other waste management questions or options, contact the department's Solid Waste Management Program. Permitted landfills and transfer stations are listed on the program's website at www.dnr.mo.gov/env/swmp/facilities/sanlist.htm and www.dnr.mo.gov/env/swmp/facilities/tranlist.htm.

Hazardous Waste Information Sources

Missouri Secretary of State

The Missouri Hazardous Waste Management Law and Regulations are available from the Missouri Secretary of State's Office. Call 573-751-4015.

Missouri Department of Natural Resources publications

www.dnr.mo.gov/pubs/index.html

- [Hazardous Waste in Missouri, Fact Sheet--PUB919](#)
- [Does Your business Generate Hazardous Wastes?, Fact Sheet--PUB117](#)
- [Management of Conditionally Exempt Small Quantities of Hazardous Waste, Fact Sheet--PUB128](#)

For More Information

Missouri Department of Natural Resources Hazardous Waste Program

P.O. Box 176

Jefferson City, MO 65102 0176

800-361 4827 or 573-751-3176

573-751-7869 fax

www.dnr.mo.gov/env/hwp/index.html

Missouri Department of Natural Resources Air Pollution Control Program

P.O. Box 176,

Jefferson City, MO 65102-0176

800-361-4827 or 573-751-4817 office

573-751-2706 fax

www.dnr.mo.gov/env/apcp/index.html

Missouri Department of Natural Resources Solid Waste Management Program

P.O. Box 176,

Jefferson City, MO 65102-0176

800-361-4827 or 573-751-5401

573-526-3902 fax

www.dnr.mo.gov/env/swmp/index.html

Missouri Department of Natural Resources Water Protection Program

P.O. Box 176,

Jefferson City, MO 65102-0176

800-361-4827 or 573-751-1300 office

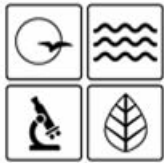
573-751-9396 fax

www.dnr.mo.gov/env/wpp/index.html

Transportation Questions

Missouri Department of Economic Development - Division of Motor Carrier and Railroad Safety. Call 573-751-7117.

Nothing in this document may be used to implement any enforcement action or levy any penalty unless promulgated by rule under chapter 536 or authorized by statute.



Missouri Department of Natural Resources

Natural Disaster Assistance for Missouri Citizens - How to Properly Dispose of Sandbags
Department of Natural Resources fact sheet

01/2016

Department of Natural Resources Director: Carol S. Comer

PUB02599

Disposal of Sandbags after Flooding

The department is providing the following guidance for handling sandbags after a flood:

- Placement of the sand in playgrounds, sandboxes or other areas of direct human contact soon after use in sandbags should be avoided, as the sand may have been exposed to harmful bacteria in floodwaters.
- Do not dump the sand or sandbag into a waterway.
- Sandbags may be used as clean fill material so long as they are subsequently covered with a layer of soil or other structural materials to a depth of at least 12 inches.
- Sandbags may also be used as daily cover at permitted sanitary landfills.
- Sand could be stockpiled and used for winter road sand, fill, concrete or mortar sand, and other uses.
- Sandbags may be stored indefinitely in piles so long as local ordinances are observed.
- Crushed limestone is considered clean fill and may be used where structurally appropriate.
- Sand from broken bags should be prevented from eroding into waterways or storm sewers. If sandbags are emptied of their contents, the bags themselves must be properly disposed of in a permitted disposal facility to reduce the potential for litter problems. Testing will not be required unless obviously contaminated. Follow proper procedures for disposing of sand that appears to have been contaminated by petroleum or other hazardous materials.

For more information contact the department's Solid Waste Management Program at 573-751-5401 or the regional office in your area (see list below).

Regional Offices

The Department of Natural Resources' Regional Offices provide field inspections, complaint investigation and front-line troubleshooting, problem solving and compliance assistance on environmental issues and emergencies.

Kansas City Regional Office

500 NE Colbern Road

Lee's Summit, MO 64086-4710

816-251-0700

816-622-7044 fax

Counties served: Andrew, Atchison, Bates, Benton, Buchanan, Caldwell, Cass, Clay, Clinton, Daviess, DeKalb, Gentry, Harrison, Henry, Holt, Jackson, Johnson, Lafayette, Nodaway, Pettis, Platte, Ray and Worth.

Northeast Regional Office

1709 Prospect Dr.

Macon, MO 63552-2602

660-385-8000

660-385-8090 fax

Counties served: Adair, Audrain, Boone, Callaway, Carroll, Chariton, Clark, Cole, Cooper, Grundy, Howard, Knox, Lewis, Linn, Livingston, Macon, Marion, Mercer, Moniteau, Monroe, Osage, Pike, Putnam, Ralls, Randolph, Saline, Schuyler, Scotland, Shelby and Sullivan.

Southeast Regional Office

2155 N. Westwood Blvd.

P.O. Box 1420

Poplar Bluff, MO 63901

573-840-9750

573-840-9754 fax

Counties served: Bollinger, Butler, Cape Girardeau, Carter, Crawford, Dent, Dunklin, Howell, Iron, Madison, Maries, Mississippi, New Madrid, Oregon, Pemiscot, Perry, Phelps, Pulaski, Reynolds, Ripley, Scott, Shannon, St. Francois, Ste. Genevieve, Stoddard, Texas, Washington and Wayne.

Southwest Regional Office

2040 W. Woodland

Springfield, MO 65807-5912

417-891-4300

417-891-4399 fax

Counties served: Barry, Barton, Camden, Cedar, Christian, Dade, Dallas, Douglas, Greene, Hickory, Jasper, Laclede, Lawrence, McDonald, Miller, Morgan, Newton, Ozark, Polk, St. Clair, Stone, Taney, Vernon, Webster and Wright.

St. Louis Regional Office

7545 S. Lindbergh, Suite 210

St. Louis, MO 63125

314-416-2960

314-416-2970 fax

Counties served: Franklin, Gasconade, Jefferson, Lincoln, Montgomery, St. Charles and St. Louis.

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For more information

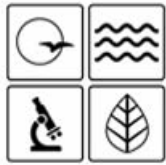
Missouri Department of Natural Resources

P.O. Box 176

Jefferson City, MO 65102-0176

800-361-4827 or 573-751-1300

<http://dnr.mo.gov>



Missouri Department of Natural Resources

How to
Handle

Asbestos Containing Debris

Air Pollution Control Program fact sheet

02/2014

Division of Environmental Quality Acting Director: Steve Feeler

PUB02121

Asbestos

Asbestos is a naturally occurring mineral fiber. Due to its unique properties, it was used in a number of different building materials into the 1970s and may still be found in some products currently being manufactured. It is estimated that manufacturers used asbestos in more than 3,000 different commercial applications.

Examples of these materials include:

- Cementitious siding and wallboard (transite)
- Asphalt and vinyl floor tile and sheet flooring
- Flooring mastics
- Textured paints
- Acoustical plaster
- Ceiling tiles and panels
- Fireproofing materials
- Heater curtains
- Blown-in insulation
- Boiler insulation
- HVAC duct insulation
- Pipe insulation
- Chalkboards
- Roofing shingles and felts
- Joint compound spackling compounds
- Brake pads

Potential Health Effects from Asbestos Exposure

There is no known safe level of asbestos exposure. Asbestos fibers are very small and can migrate through the body's natural defense system into the lungs, where they can cause damage to the respiratory system.

There are three major health risks associated with asbestos exposure:

- Asbestosis, which is a scarring of the lungs.
- Mesothelioma, which is a cancer of the lining of the lungs and the abdominal cavity.
- Lung cancer.

Categories of Asbestos Containing Materials

There are three categories of asbestos containing materials:

- Friable asbestos containing materials.
- Category I non-friable asbestos containing materials.
- Category II non-friable asbestos containing materials.

Friable asbestos containing material is any material containing greater than one percent asbestos that, when dry, can be crumbled, pulverized or reduced to powder by hand pressure. These materials will more readily produce asbestos fibers if disturbed or removed. Examples of friable materials include sprayed or troweled materials such as acoustical ceiling spray, boiler insulation, paper pipe insulation and drop-in ceiling tile.

Category I non-friable asbestos containing material is asbestos containing packings, gaskets, resilient floor coverings and asphalt roofing products containing more than one percent asbestos. The asbestos in Category I materials is more tightly bound in the matrix of the material. These materials are less likely to generate asbestos fibers if they are in good condition and are not subject to sanding, grinding, cutting or abrading. Also, any vapor barrier on resilient floor coverings such as sheet vinyl or tile is considered friable asbestos if the flooring is removed in a manner that causes the vapor barrier to delaminate or separate from the covering.

Category II non-friable asbestos containing material is any non-friable material, other than category I materials, that contain more than one percent asbestos. The asbestos tends to be more tightly bound in the matrix of these materials. If not removed prior to demolition or renovation these materials have a higher probability of becoming crumbled, pulverized or reduced to powder, which may make it subject to regulation. If removed properly, these materials are not regulated by the department. Examples of category II materials include transite wall or roof shingles, wall board or cement pipe.

Identifying Asbestos Containing Materials

The department requires institutional, commercial, public, industrial or residential structures, excluding certain residential structures to be inspected for the presence of asbestos prior to being renovated or demolished. This inspection must be performed by a Missouri-certified asbestos inspector.

In the case of a natural disaster where a building has been damaged, and may be structurally unstable, alternate inspection and notification requirements may apply. In this event, contact the Air Pollution Control Program or your Regional Office to discuss requirements. The building and debris should be kept wet to minimize the potential for any emissions of asbestos to occur. After the danger of the unsafe structure has been eliminated, an inspection of the resulting debris may be required.

For residential structures that contain four or fewer dwelling units there is an exemption from this inspection requirement, unless the demolition or renovation project involves multiple buildings under the control of the same owner or operator, or the structure is to be burned as part of a fire training exercise. However, this does not mean that asbestos found in these exempt structures is not dangerous if disturbed. If you suspect damaged material might contain asbestos, the department recommends you not further disturb the material until it can be determined if it is asbestos containing or not. For the purpose of identifying asbestos containing materials, the department recommends you obtain the services of a Missouri certified asbestos inspector to positively identify any suspect materials or that you assume the material contains asbestos. It is recommended any debris be kept wet until an adequate determination of the presence of asbestos can be made.

Requirements for Removal of Regulated Asbestos

If the demolition or renovation to an institutional, commercial, public, industrial or residential structure (excluding exempt residential structures as described in the preceding section) will involve greater than 160 square feet, 260 linear feet, or 35 cubic feet of regulated asbestos containing materials, then the removal of the asbestos is regulated by the department. For projects that meet these thresholds, a Missouri registered contractor and Missouri certified asbestos workers must be used to perform the abatement of the material. If buildings have been demolished or destroyed by a natural disaster prior to removing the asbestos, then any debris subsequently contaminated by asbestos must also be handled as asbestos containing waste. The department's Air Pollution Control Program should be contacted for guidance.

The department must be notified about all abatement projects involving greater than a threshold amount of asbestos and for all demolition projects regardless of whether asbestos is present or not. Typical notification requirements would require a 10 working day notification. However, in the case of buildings that have been damaged as a result of a natural disaster, the department will waive this 10-day notice requirement. However, notice should be sent to the department within 24 hours of either starting a regulated abatement or demolition project.

There is no requirement to use a Missouri registered contractor for asbestos removal for unregulated demolition or renovation projects that involve less than the threshold levels listed above for friable asbestos containing materials, non-friable asbestos containing materials or asbestos containing materials from exempt residential structures. However, using trained professionals for the removal of asbestos containing materials is recommended.

Other agencies, such as the Occupational Safety and Health Administration (OSHA), also have requirements for the safe handling of asbestos containing materials. For OSHA related requirements contact OSHA in St. Louis at 800-392-7743 or in Kansas City at 816-483-9531.

Precautions to Take to Minimize Asbestos Exposure

If damaged materials are suspected of containing asbestos, it is recommended the materials not be disturbed until it can be properly identified. If you elect to remove or disturb asbestos containing materials from unregulated demolition or renovation projects, proper precautions should be taken to minimize any potential exposure.

7. Seal off work areas where asbestos containing materials may be present, and take care not to track asbestos dust into other areas.
8. Always wear an approved respirator and disposable protective clothing. Decontaminate yourself before going into uncontaminated areas.
9. When working with asbestos containing material, keep the material wet to keep emission of asbestos fibers to a minimum.
10. Avoid breaking the material into smaller pieces. While smaller pieces may be easier to handle, this will increase the possibility of asbestos emissions.
11. Place any material you remove into appropriate leak tight disposal packaging or containers while the material is wet.
12. Transport the asbestos waste material to an approved disposal facility in an enclosed dumpster or truck lined with plastic sheeting.

Waste Disposal Requirements for Asbestos Contaminated Debris

All asbestos containing waste, whether from a regulated or unregulated demolition or renovation project is a waste material and must be disposed of at a permitted solid waste disposal facility that will accept the material. Asbestos containing materials should never be burned for disposal, as this will generate the

emissions of asbestos fibers into the air, and is in violation of the department's open burning requirements. For regulated projects, the department has stringent requirements for the packaging and labeling of asbestos containing waste materials. While the department has no requirements for packaging and labeling of asbestos containing waste materials from unregulated projects, you should still make arrangement with the disposal facility that you intend to use to determine what packaging and labeling requirements they may have for acceptance of the materials at their facility.

Locating Trained Asbestos Professionals

The Missouri Department of Natural Resources' Air Pollution Control Program maintains lists of all Missouri-certified asbestos inspectors and all Missouri registered asbestos abatement contractors. These lists are available on the department's website at <http://dnr.mo.gov/env/apcp/asbestos/> or by contacting the Air Pollution Control Program at 573-751-4817.

Asbestos Contact Information

For more information on the department's asbestos requirements, you may contact the department's Air Pollution Control Program or one of the department's other offices:

Local Agencies

In Missouri, there are two local agencies that have an agreement with the department to enforce Missouri's asbestos requirements as well as local ordinances. These local agencies are:

Jurisdiction	Agency	Telephone
Kansas City	Kansas City Health Department Air Quality Program	816-513-6314
St. Louis County	St. Louis County Health Department	314-615-8924

Two additional local agencies do not enforce Missouri's asbestos requirements but may have local ordinances concerning asbestos which they enforce:

Jurisdiction	Agency	Telephone
St. Louis (city)	St. Louis Division of Air Pollution Control Air Quality Program	314-613-7300
Springfield	Springfield-Greene County Health Department of Environmental Services	417-864-1412

Prior to performing a project in one of these jurisdictions, you should contact the appropriate agency to determine if any additional requirements apply.

Missouri Department of Natural Resources
Air Pollution Control Program
P.O. Box 176
Jefferson City, MO 65102
573-751-4817
573-751-2706 fax

<http://www.dnr.mo.gov/env/apcp/>

Kansas City Regional Office
500 NE Colbern Road
Lee's Summit, MO 64086-4710
816-251-0700
816-622-7044 fax

Northeast Regional Office
1709 Prospect Dr.
Macon, MO 63552-2602
660-385-8000
660-385-8090 fax

St. Louis Regional Office
7545 S. Lindbergh, Suite 210
St. Louis, MO 63125
314-416-2960
314-416-2970 fax

Southeast Regional Office
2155 N. Westwood Blvd.
Poplar Bluff, MO 63901
573-840-9750
573-840-9754 fax

Southwest Regional Office
2040 W. Woodland
Springfield, MO 65807-5912
417-891-4300
417-891-4399 fax

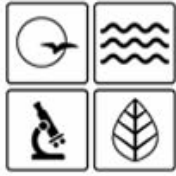
Additional Asbestos Related Guidance Documents

For more specific information about the department's requirements in regard to asbestos, reference the additional guidance documents listed below or contact the department or appropriate local agency at the contact information found in this fact sheet.

These documents are available for free download from the department's website at www.dnr.mo.gov/pubs/index.html.

- [Asbestos Requirements for Demolition and Renovation Projects, Fact Sheet--PUB2157](#)
- [Asbestos: What is it and why is it a concern?, Fact Sheet--PUB2077](#)
- [Management of Nonfriable Asbestos Containing Materials, Fact Sheet--PUB2156](#)
- [Requirements for Fire Training Exercises Involving Structures, Fact Sheet--PUB2029](#)

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Missouri Department of Natural Resources

Natural Disaster Assistance for Missouri Citizens - Natural Disaster Recovery for Historic Buildings

Department of Natural Resources fact sheet

01/2017

Department of Natural Resources Director: Carol S. Comer

PUB00760

The destruction to historic buildings caused by natural disasters can be significant. A moderately severe tornado, for example, is capable of lifting the roof off a historic building and, in the process, widely scattering its contents. The most intense tornado can lift a frame building in its entirety. Often, when a tornado passes over a structure, the rapid reduction in air pressure will cause the higher pressure inside to cause the building to explode.

Evaluation of damage to buildings is one of the first and most essential steps to undertake after a natural disaster. Building departments and private engineers will determine which damaged buildings are safe to enter.

In the rush to repair communities, it may be easier to demolish damaged historic buildings than to undertake repair, but understanding laws and policies for disaster relief often enables communities to restore these buildings.

Immediate Post-Disaster Actions for Historic Buildings

After an historic building has been deemed safe to enter, immediate steps should be taken to stabilize the structure:

- Ensure gas, electricity and water are shut off.
- Consult a licensed engineer or preservation architect about structural stability of buildings and chimneys.
- Check walls and ceilings for misalignment from the foundation.
- Temporarily secure broken boards with plywood. Secure doors and window openings with appropriate coverings. Keeping additional moisture out of the building is a key step in preserving the structure.
- Salvage from debris broken historic elements such as bricks or decorative elements for reuse or replication.
- Maintain protective roof coverings. Continued attention must be paid to temporary repairs. Repairing gutters and downspouts will help move water away from the building.

Maintaining Preservation Standards

Common effects of disasters on historic places, such as cracked walls, roofs that have been removed, water-damaged plaster and wet furnishings, usually can be repaired. Although the aftermath of a disaster is not "preservation as usual," generally accepted standards should be followed even in the rush to repair.

For historic buildings, general and broad rules-of-thumb are good guides after disasters, as well as before:

- Repair rather than replace. Retain original features and materials wherever possible.
- Repair is historically and economically preferable to replacement.
- Replace with similar features. If replacement is necessary, use items that match the original in design and materials.
- Retain historic character. If matching replacements are impossible because features are unavailable or too expensive, try to reproduce the salient visual characteristics of the original, such as material, composition, proportion and color.
- Return to the original. When possible, replace previously missing parts and remove inappropriate modernizations.

Repairing Storm-Damaged Historic Buildings

Roofs

Roofs form the first line of defense of any historic building and are vital in keeping damaging moisture out of the building.

- Because a roof is damaged does not mean it is a complete loss. Get expert advice, particularly because damage may not be visible.
- Metal roofs may be more difficult to repair, especially when they have become bent out of shape due to wind damage. Portions may be reusable.
- Metal flashings at parapets, chimneys, dormers, valleys, ridges and porches, are especially vulnerable and should be checked thoroughly.

Masonry and Mortar Repairs

Mortar in an historic building can be weakened by the damaging winds of a tornado. Settlement can lead to cracking in masonry walls, which can compromise the structure.

- Compatibility of materials is important. Similar brick types should be used in repairs. Portland cement mortar or stucco should be avoided.
- A good type of mortar to use for most brick is one composed of lime, sand and portland cement. A typical mix appropriate for historic buildings might include three parts lime, one part portland cement and 10-to-12 parts sand.
- The use of portland cement for stucco repair may cause the old material around the patch to powder and deteriorate. It is important when patching stucco to use as dry a mix as possible to avoid shrinking and cracking.

Wood

- Be sure the building is fastened to its foundation, and tie together roof, walls and floors to strengthen the structural system.
- Reinforce rotted or insect-infested beam-ends by adding flitch plates or “sisters.”
- If the disaster recovery is used as an opportunity to upgrade the utilities in an historic structure, avoid drilling multiple holes through joists and beams, thus destroying or weakening the historic fabric.

Windows and Doors

Windows and doors can be among the most important and decorative features in an historic building. If replacement of windows and doors is determined to be necessary, a partial replacement of components such as window sash alone should be considered. If window or door frames are replaced, the exterior trim should closely match the original.

Restoration Hazards

- Fire: Never use an open flame or heat gun when working on wooden trim; both present a severe fire hazard.
- Asbestos: Wind and water damage, or work to repair this damage, can cause asbestos fibers, which were used in thousands of different construction materials, to become airborne. Missouri asbestos regulations differ for regulated and unregulated structures.
- Regulated structures (includes institutional, commercial, public, industrial or residential structures that contain more than four dwelling units) – A Missouri-certified asbestos inspector must perform an inspection for the presence of asbestos prior to the structure being renovated or demolished. Additional requirements such as notification or use of asbestos professionals may be required depending on the results of the inspection.
- Unregulated structures (a residential structure of less than four units) – While an asbestos inspection is not required, it can be a good idea. If asbestos-containing materials are detected on the site of a disaster, make sure all work halts immediately and professionals are brought in to clean it up.

Detailed information is available in the [Asbestos Requirements for Demolition and Renovation Projects, Fact Sheet--PUB2157](#) online, or by contacting the Air Pollution Control Program at 573-751-4817.

- Lead Paint: Any stripping or scraping of paint on old buildings may uncover lead paint and release lead-contaminated dust, which is potentially poisonous to children. Equally dangerous is the use of heat guns or flames, which vaporize the lead in old paint.

Financial Assistance for Recovery

Federal and state tax incentives exist for the rehabilitation of historic buildings. Most rehabilitation costs incurred as part of disaster recovery efforts may qualify for these credits.

- Federal Historic Rehabilitation Tax Credit: A 20 percent federal rehabilitation tax credit exists for substantially rehabilitated historic buildings. The credit applies to income-producing, depreciable structures only. Properties must be listed individually in the National Register of Historic Places or be a contributing element of a National Register Historic District. Rehabilitation must be substantial, meaning rehabilitation costs must exceed either the greater of \$5,000 or the adjusted basis of the building. All rehabilitation work must meet the Secretary of the Interior's "Standards for Rehabilitation."
- A 10 percent federal credit also exists for non-historic buildings.
- Missouri Historic Rehabilitation Tax Credit: A 25 percent Missouri rehabilitation tax credit exists for substantially rehabilitated historic buildings. The credit applies to income-producing, depreciable structures or to an owner's personal residence. Properties must be listed individually in the National Register of Historic Places or be a contributing element of a National Register Historic District. Rehabilitation must be substantial, meaning rehabilitation costs must exceed 50 percent of the basis of the property. All rehabilitation work must meet the Secretary of the Interior's "Standards for Rehabilitation."

Bibliography

The information in this publication was prepared by the Missouri Department of Natural Resources' State Historic Preservation Office, with assistance from the National Park Service, Preservation Assistance Division.

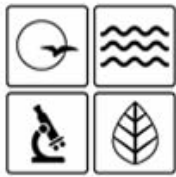
Carl L. Nelson, *Protecting the Past From Natural Disasters*, Washington, D.C., The Preservation Press, 1991.

Safeguarding Your Historic Site: Basic Preparedness and Recovery Measures for Natural Disasters. Federal Emergency Management Agency, Region 1, 1993.

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For more information

Missouri Department of Natural Resources
P.O. Box 176
Jefferson City, MO 65102-0176
800-361-4827 or 573-751-1300
<http://dnr.mo.gov>



Missouri Department of Natural Resources

Animal Production Mortalities Emergency Procedures

Solid Waste Management Program / Water Protection Program fact sheet

01/2017

Division of Environmental Quality Acting Director: Steve Feeler

PUB01250

This fact sheet contains guidance about handling high mortality of animals due to unusual events such as floods, tornados, or other natural disasters as well as power outages, fires, spread of disease or other events that cause a high number of mortalities at animal production facilities.

During a disaster, the highest priority is protection of human life and safety. As soon as the immediate threat is over, animal producers must address the disaster's effects on their animals and property. Live animals should be provided humane treatment and dead animals must be disposed of in compliance with state law.

Preplanning for disasters can save time and money during an already stressful period. Contacting your local landfills and identifying composting or burial locations can lessen that burden. This guidance assists you in the preplanning process.

For the disposal law, see moga.mo.gov/mostatutes/stathtml/26900000201.HTML or call the Missouri Department of Agriculture's Division of Animal Health at 573-751-3377.

Estimating Site Damage

Begin by viewing the site and making a written self-estimate of damage. This will help in talking to agencies and organizations and making cleanup plans. Document conditions by photographing damage at the earliest opportunity and then identify the following:

- Number of animals originally on-site
- Approximate number and size of dead animals
- Uninjured animals and their needs for food, water and protection
- Animals that remain unaccounted
- Condition of confinement buildings or enclosures

Cleanup

Move to safety and find housing for uninjured animals either on your property or with the help of your integrator company. Contact your county USDA Natural Resources Conservation Service office, usually located in the county seat, to determine what assistance is available.

Dispose of dead animals within 24 hours of death by the most practical means available among the following. This list is in order of desirability with rendering being most desirable and burial least desirable:

- Processing at a rendering plant. Call 573-751-3377 to request information about licensed companies. Some integrator companies have their own rendering in conjunction with processing plants.

- Composting as recommended by University of Missouri Extension.
- Landfill disposal. Call the landfill first to determine whether it accepts large quantities of dead animals. For a complete listing of landfills, visit dnr.mo.gov/env/swmp/facilities/sanlist.htm or call the Department of Natural Resources' Solid Waste Management program at 800-361-4827 or 573-751-5401 to obtain phone numbers of landfills in the area.
- Pre-existing University of Missouri Extension service-designed agricultural incinerator or Department of Natural Resources permitted commercial incinerator.
- On-site burial following state law's standard loading limitations.

Compost and Burial Site Selection

Do not bury or compost animals in sinkholes, ravines, caves, mines, low-lying areas subject to flooding, ditches or at the base of a hill. Follow the state law setback distances, using the greatest applicable distance:

- 100 feet from surface water such as ponds, streams and lakes
- 300 feet from springs, losing streams, wells (including unused and abandoned wells, neighboring residences, surface drinking water intakes and public water supply lakes
- 50 feet from property lines.

Drawing a diagram of the property showing all applicable setbacks will help define areas acceptable for composting or burial.

Add neighboring property features requiring setbacks and ask questions of the landowners, if needed. Draw a line or radius showing the setback distance from these features on the neighbors' properties on the property diagram and eliminate these areas from consideration.

Identify the highest elevations and flatter areas of the property. A topographic map may be helpful. A ridge area is preferred for a burial or compost site because it is farthest from surface water features. Flat to gently sloping upland areas are most desirable.

The local USDA Natural Resources Conservation Service office has information about soil types and thickness. The offices should be able to provide soil map unit data and interpretation reports including ratings for animal burial suitability.

Clay-textured soils are desirable, including heavier silty clay loam, clay loam, sandy clay, silty clay and clay. Soils with sandy textures or large amounts of gravel are not desirable.

Burial sites should have at least 2-feet of clay-textured soil material beneath the trench. Look for the areas of the property that have the deepest soil but avoid flood-prone areas. A 6-foot deep trench requires 8-feet of soil depth and a 4-foot-deep trench requires 6-feet of soil depth. If a 6-foot-deep trench would expose bedrock everywhere on the property, a shallower trench of 3- to 4-feet depth may be necessary. In this case, a single layer of large animals could be deposited in the trench.

Emergency Composting Structures

If an empty litter stacking shed is available, it makes a good temporary composter. In general, if no shed is available, emergency carcass composting units should be constructed with the following in mind:

- Composting can be done in long windrow piles or in bins constructed of hay bales according to the convenience of available materials and site considerations. A convenient width of bins or windrows for

ease of equipment use is 10- to 12-feet. But other widths may be used. Typical heights of piles or bins is 6- to 10-feet.

- Compost piles or bins should be started with a 2-foot thick base layer of bulking material such as sawdust, wood chips, leaves, straw, hay or silage to absorb odors and liquids.
- Carcasses should be placed in layers separated by 6-inch layers of bulking material. Dry poultry litter may be used in inner layers as a bulking material, if available. Large animal carcasses should be splayed when placed to help with bloating and eruption that can damage the pile. In dry conditions, wetting the layers during placement is advised to provide proper moisture conditions for composting.
- Cap the pile or bin with a 2-foot layer of bulking material.

A properly constructed compost pile will not attract vectors or scavengers, will be odor free, will not ooze decomposition liquids and will kill pathogens. The composting process takes eight to 12 weeks. The process will convert the animal carcasses and bulking material into a beneficial soil amendment.

Further guidance for building composting units according to University of Missouri Extension service designs is available at:

- <http://extension.missouri.edu/explore/envqual/wq0351.htm>
- <http://extension.missouri.edu/publications/DisplayPub.aspx?P=WQ211>

Burial Guidelines

- Trenches should be dug no deeper than 6-feet to comply with the state statute. Stockpile the topsoil separately for final cover.
- If soil thickness is inadequate for a 6-foot deep trench, leave at least 2-feet of clay soil in the floor of the trench and limit the total depth of the trench.
- Keep the bottom of trenches as flat as possible. Slope one end of the trench, if necessary to allow vehicular access for placing carcasses.
- If the site is sloping, run the trench across the slope to minimize the probability of erosion.
- Make the uphill side of the trench no more than 6-feet deep and the downhill side less than 6-feet.
- If an underground void such as a sinkhole, rock crevice, cave or manmade chamber such as a cistern is encountered while digging, do not use that area.
- To prevent trench sides from collapsing, slope or bench any excavation face more than 4-feet high and take any other necessary safety precautions.
- Place carcasses to within about 1-foot of the surface. Pierce body cavities of animals that are more than 150 pounds as they are placed to minimize bloating and comply with the state statute.
- Cover the carcasses with excavated soil so as to mound at least 30 inches thick to comply with the state statute. Pack the cover material by running heavy equipment over it several times.
- Place the stockpiled topsoil over the mounded trench area and seed it with a perennial grass as soon as possible. This will prevent erosion and will help promote runoff from infiltrating.

Contact the Missouri Department of Agriculture's Division of Animal Health or a Missouri Department of Natural Resources' regional office for further assistance.

For assistance locating an appropriate burial site on your farm, contact the Department of Natural Resources' Geological Survey Program at 573-368-2100 or, after business hours, the department's Environmental Emergency Response hotline at 573-634-2436.

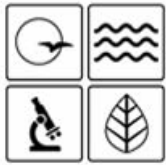
Helpful Contacts

- Your integrator company. If applicable, these companies may be helpful in capturing live • animals and finding locations where these animals may be relocated.
- The Department of Agriculture’s State Veterinarian’s Office. Visit the webpage mda.mo.gov/animals/health/staff.php or call 573-751-3377, particularly if buildings are unsafe to enter, which might make it difficult to comply with the state statute regarding disposal in a timely manner, or for situations that require disposal of large numbers of animals.
- Your region’s Department of Natural Resources regional office for help with disposal questions. Visit dnr.mo.gov/regions/regions.htm or call 800-361-4827 to find out which regional office serves your area. After business hours, call the department’s Environmental Emergency Response hotline at 573-634-2436.
- Your county sheriff or other law authorities. They can assist in protecting animals and belongings.

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For more information

Missouri Department of Natural Resources
 Water Protection Program
 P.O. Box 176
 Jefferson City, MO 65102-0176
 800-361-4827 or 573-751-1300
<http://dnr.mo.gov/env/wpp>



Missouri Department of Natural Resources

Natural Disaster Assistance for Missouri Citizens Contact Phone Numbers

Department of Natural Resources fact sheet

01/2017

Department of Natural Resources Director: Carol S. Comer

PUB00763

The Department of Natural Resources realizes a natural disaster will spawn environmentally related problems. Staff are available to help you. For more information about the following concerns, please contact department staff at the numbers below:

Environmental Emergencies should be reported to 573-634-2436.

Air Pollution Control Program	573-751-4817
Environmental Services Program	573-526-3315
Hazardous Waste Program	573-751-3176
Land Reclamation Program	573-751-4041
Water Protection Program	573-751-1300
Public Drinking Water Branch	573-751-5331
Soil and Water Conservation Program	573-751-4932
Solid Waste Management Program	573-751-5401
State Historic Preservation Office	573-751-7858

Missouri Department of Natural Resources' Regional Offices:

Kansas City Regional Office	816-251-0700
Northeast Regional Office (Macon)	660-385-8000
St. Louis Regional Office	314-416-2960
Southeast Regional Office (Poplar Bluff)	573-840-9750
Southwest Regional Office (Springfield)	417-891-4300

Other Government Agencies

Missouri Department of Agriculture	573-751-4211
Missouri Department of Health and Senior Services	573-751-6400
Missouri State Highway Patrol -- Troop Headquarters Below	573-751-3313
Missouri Department of Public Safety/State Emergency Management Agency	573-526-9100

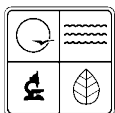
Missouri State Highway Patrol Troop Headquarters

Troop A	Lee's Summit	816-622-0800
Troop B	Macon	660-385-2132
Troop C	Weldon Spring	636-300-2800
Troop D	Springfield	417-895-6868
Troop E	Poplar Bluff	573-840-9500
Troop F	Jefferson City	573-751-1000
Troop G	Willow Springs	417-469-3121
Troop H	St. Joseph	816-387-2345
Troop I	Rolla	573-368-2345

Nothing in this document may be used to implement any enforcement action or levy any penalty unless promulgated by rule under chapter 536 or authorized by statute.

For more information

Missouri Department of Natural Resources
P.O. Box 176
Jefferson City, MO 65102-0176
800-361-4827 or 573-751-1300
<http://dnr.mo.gov>



MISSOURI DEPARTMENT OF NATURAL RESOURCES
AIR POLLUTION CONTROL PROGRAM
APPLICATION FOR PERMIT TO OPEN BURN VEGETATIVE OR
UNTREATED WOOD

LOCATION OF BURN SITE

- ☐ Inside City Limits
☐ Outside City Limits

APPLICANT INFORMATION

APPLICANT NAME		PERMIT NUMBER	PREFERRED METHOD OF DELIVERY OF COMPLETED PERMIT Email FAX Postal Mail	
COMPANY NAME		EMAIL ADDRESS		
COMPANY ADDRESS		CITY	STATE	ZIP CODE + 4
PRIMARY TELEPHONE NUMBER WITH AREA CODE	ALTERNATIVE TELEPHONE NUMBER WITH AREA CODE	FAX NUMBER WITH AREA CODE		

SITE INFORMATION

SITE NAME (SUBDIVISION OR DEVELOPMENT NAME)		NAME OF INDIVIDUAL WHO WILL CONTROL THE BURN		TELEPHONE NUMBER WITH AREA CODE
SITE LOCATION (STREET ADDRESS)		CITY	COUNTY	WILL AN AIR CURRENT DESTRUCTOR BE USED AT THIS SITE? YES NO
DIRECTIONS – ALSO SUBMIT A MAP OR PROVIDE GPS COORDINATES OF THE BURN SITE LOCATION			DISTANCE TO NEAREST OCCUPIED STRUCTURE (YDS)	
TYPE OF MATERIAL TO BE BURNED Tree Trunks Tree Limbs Leaves Brush <input type="checkbox"/> Untreated Wood		ARE ALL RELEVANT WAIVERS ATTACHED? YES NO		LAND DISTURBANCE PERMIT NUMBER (IF APPLICABLE; EXAMPLE: DISTURBED AREA > 1 ACRE) MO-R

Signed waivers from all home/business owners and/or an Air Curtain Destructor, or ACD, are required when vegetative waste is to be burned within 200 yards of an occupied structure. An ACD may also be required as a special permit condition.

FIRE DEPARTMENT INFORMATION

LOCAL FIRE JURISDICTION		FAX NUMBER WITH AREA CODE	TELEPHONE NUMBER WITH AREA CODE
POSTAL ADDRESS			EMAIL ADDRESS
CITY		STATE	ZIP CODE + 4
TITLE		PRINTED NAME FIRE DEPARTMENT REPRESENTATIVE	
FIRE DEPARTMENT REPRESENTATIVE SIGNATURE			DATE
PREFERRED METHOD OF COMPLETED PERMIT DELIVERY Email FAX Postal Mail		COMMENTS	

APPLICANT CERTIFICATION AND DEPARTMENT OF NATURAL RESOURCES APPROVAL/DENIAL

I certify that:

- ☐ The information contained in this application is true and accurate to the best of my knowledge.
☐ I have read and will comply with the standard conditions and any special permit conditions that may be required.
☐ The department may revoke this permit if conditions are violated or a complaint or nuisance is created by the open burning.
☐ This permit will be effective for 60 days from approval unless otherwise terminated.
☐ In no way does this permit relieve me of my obligation to comply with all applicable federal, state and local laws or regulations.

APPLICANTS' SIGNATURE	PRINT APPLICANT NAME	DATE
DEPARTMENT OF NATURAL RESOURCES APPROVAL		DATE
REASON DENIED OR SPECIAL CONDITIONS OF APPROVAL		
ANY ADDITIONAL SPECIAL CONDITIONS		

Regional Office contact information is available at: <http://www.dnr.mo.gov/regions/regions.htm>

OPEN BURN PERMIT STANDARD CONDITIONS

1. The permission to burn in no way relieves the permittee of their obligation to comply with any other local, county, state or federal rules or regulations.
2. This application becomes the burn permit once signed by the designated Department of Natural Resources representative. Before any burning takes place, the permittee must submit to Department of Natural Resources Regional Office, a completed application signed by a representative of the local Fire District.
3. A representative/employee of permittee shall be present during all burning to ensure compliance with this permit and to make certain the fire(s) are out after 5:00 p.m.
4. Only tree trunks, tree limbs, leaves and brush originating on the site may be burned. For permits allowing the burning of untreated wood, only waste meeting the definition of "untreated wood" may be burned.
5. The distance from the burn site to the nearest occupied structure (residence or business) must be greater than 200 yards, unless an Air Curtain Destructor is used or waivers were obtained.
6. Burning will take place only between 7:00 a.m. and 5:00 p.m. and within any more restrictive burn times that may be applicable (e.g. the St. Joseph and St. Louis areas).
7. Should a problem arise from the burning, such as a public health hazard, nuisance, or a hazard to vehicular or air traffic, the permittee must correct the problem immediately.
8. This permit is effective for 60 days from the date issued.
9. This permit will be revoked immediately for failure to fully comply with any of the conditions and restrictions.
10. The permittee shall notify the local fire department each day before starting any burning.
11. Any other permits required by the State of Missouri Department of Natural Resources (i.e. NPDES Land Disturbance Permits) must be applied for and obtained. Failure to do so may result in termination of this permit. Please contact your local Regional Office regarding other possible permitting requirements.
12. Permittee authorizes Department of Natural Resources personnel to enter the site at any time during the term of this permit for inspections and permit compliance determinations. If this permit is terminated or revoked for any reason, a full application must be resubmitted.

DEFINITION

Untreated wood – Lumber and other wooden materials that have not been chemically treated for resistance to moisture, fire, fungi, insects and other pests, or has not otherwise been treated or manufactured with chemicals, or that does not contain adhesives or resins. Untreated wood does not include plywood, particleboard, chipboard or wood with other than insignificant quantities of paint, coating or finish.

SPECIAL CONDITIONS

All tree and vegetation materials suitable for other uses such as fireplace wood, posts, saw logs, etc. should be removed prior to burning.

Appendix T: Emergency Procurement Policy

The County of Boone follows the Boone County Purchasing Policy Manual which has been approved and adopted through the Boone County Commission. This policy outlines all purchasing procedures and requirements for County Departments. Including section *§3-106 Emergency Procurements*.

The Boone County Purchasing Policy Manual is located on the Boone County webpage at:
<https://www.showmeboone.com/Purchasing/WebPublish/Miscellaneous%20Information/BooneCountyPurchasingPolicyManual.pdf>

Appendix U: Existing Emergency Contracts

Existing emergency contracts are held within the Boone County Purchasing Office. In the event emergency procurement is required, a Boone County Purchasing Office member will provide aid and direction.

Additional emergency contracts are likely to exist within the jurisdictions of Boone County. It is upon the maintaining agency to call upon and use contracts in a time of disaster.

ESF-4: FIRE SERVICES

The purpose of this annex is to define an organization and procedures for firefighting and rescue resources to meet the demands of a disaster situation that may threaten the health and safety of the citizens of Boone County.

Agencies with identified roles and responsibilities in this annex include, but are not limited to:

Boone County Fire Protection District (BCFPD)
Centralia Fire Department (CEFD)
Columbia Fire Department (CFD)
Columbia Regional Airport Public Safety Department (COU APS)
Southern Boone County Fire Protection District (SBCFPD)
Ashland Police Department (APD)
Boone County Joint Communications (BCJC)
Boone County Office of Emergency Management (OEM)
Boone County Sheriff's Department (BCSD)
Boone Hospital Center and BHC Ambulance Service (BHC EMS)
Centralia Police Department (CENTPD)
Columbia Police Department (CPD)
Hallsville Police Department (HPD)
Missouri State Highway Patrol (MSHP)
Missouri Task Force 1 Urban Search & Rescue (MO-TF1)
Sturgeon Police Department (SPD)
University of Missouri Police Department (MUPD)
University of Missouri Healthcare and UM Health Care Ambulance Service (UMC EMS)

SITUATION AND ASSUMPTIONS

SITUATION

The fire departments/districts that serve Boone County and its municipalities include the Boone County Fire Protection District, Centralia Fire Department, Columbia Fire Department, the Columbia Regional Airport Public Safety Department and the Southern Boone County Fire Protection District. These departments operate a total of 30 stations at locations throughout Boone County and within its municipalities, and at the Columbia Regional Airport. Locations of each department's stations are provided in Appendix 1.

BOONE COUNTY FIRE PROTECTION DISTRICT (BCFPD)

The Boone County Fire Protection District is governed by a five-member board of directors elected by the public and serves the county from 15 fire stations. BCFPD provides fire, rescue, emergency medical services and hazardous materials response for Hallsville, Harrisburg, Rocheport and Sturgeon, as well as 532 square miles of unincorporated area in the county.

BCFPD is also the hosting agency and home base of Missouri Task Force 1 (MO-TF1), one of FEMA's 28 Urban Search & Rescue Task Forces staffed by specially trained personnel from Boone County and elsewhere around the state. A cache of equipment to support the MO-TF1 operations is housed at the BCFPD headquarters.

CENTRALIA FIRE DEPARTMENT (CEFD)

The Centralia Fire Department provides fire service within the corporate limits of Centralia. The department maintains 2 fire stations with staffing by paid-per-call volunteers.

COLUMBIA FIRE DEPARTMENT (CFD)

Fire and rescue service within the City of Columbia is provided by a career department operating out of 9 stations strategically placed throughout the city. CFD provides firefighting and emergency medical services, and operates a hazardous materials team which comprises one of the two Missouri Homeland Security Regional Response Teams (HSRRT) located in Region F.

COLUMBIA REGIONAL AIRPORT DEPARTMENT OF PUBLIC SAFETY (COU APS)

COU APS is staffed by paid public safety officers trained to provide law enforcement, firefighting and emergency medical services. COU APS responds to incidents on airport property with assistance provided, as needed, by the CFD, the SBCFPD, and BCFPD.

The aircraft rescue and firefighting (ARFF) apparatus housed on COU property includes an E-One ARFF truck, and an Oshkosh Stryker ARFF truck.

SOUTHERN BOONE COUNTY FIRE PROTECTION DISTRICT (SBCFPD)

The Southern Boone County Fire Protection District is a volunteer department and serves the southern one-third portion of the county. SBCFPD operates out of 4 stations, and provides fire, emergency medical and rescue services within the jurisdiction.

Detailed information on resources and points of contact can be found in the EOC Contact and Resource Guide maintained by OEM.

ASSUMPTIONS

Existing fire and rescue personnel and equipment within Boone County should be adequate to deal with most emergency situations.

Responses can be supplemented with personnel and equipment as needed through current mutual aid agreements and plans.

State, federal, and private organizations will respond when needed.

CONCEPT OF OPERATIONS

GENERAL

In accordance with federal mandates, management of local disasters and emergencies will be initiated and conducted using the concepts and principles of the National Incident Management System (NIMS). On-scene management and coordination of responses will utilize the Incident Command System (ICS).

The fire department activities described in this annex are an extension of normal day-to-day activities and deal only with those situations that could completely exhaust all available resources.

ESF-4 will be coordinated by representation from one or all fire service agencies involved in the incident. Entities with ESF-4 responsibilities will provide liaisons to the EOC, if activated, to form an ESF-4 coordination group. Liaisons from primary and support agencies may locate to, and operate from, the EOC, or may retain a virtual presence with the EOC. The ESF-4 liaison will coordinate fire service resource management, maintain situational awareness, and provide information to the EOC regarding fire service response and recovery efforts.

ESF-4 will prioritize, allocate and task assets in coordination with the other ESFs to support the disaster response and recovery efforts. Priorities will continually be reassessed to develop strategies and address the most critical needs.

Local resources will be used first before outside assistance is requested from mutual aid, the state and/or federal government. The first resources to be identified will be those that are under the control of, or are readily available to, the County and municipal governments.

The EOC will not interfere with the internal operations of the involved agencies but will monitor the situation and provide support as requested.

Mutual aid resources will remain under the authority of their home agencies but will be mission assigned by ESF-4 in the EOC and utilized on site by the Incident Commander.

The primary task of the fire service during disasters or large-scale emergencies is the same as its day-to-day mission, which is the protection of people and property from the threat of fire. Other important fire service capabilities are detailed below. All incidents utilizing fire service response will be managed using ICS concepts.

MEDICAL RESPONSE

All fire agencies within Boone County provide Emergency Medical Responder (EMR) and/or Emergency Medical Technician (EMT) level medical service.

HAZARDOUS MATERIALS RESPONSE AND MITIGATION

In accordance with guidance from the Boone County Local Emergency Planning Committee (LEPC), fire service personnel from the fire agencies within the county are trained at a minimum to the Awareness Level for hazardous materials situations.

Responding personnel - depending on level of training and available equipment – have the capabilities to isolate the hazardous area, perform decontamination, mitigate the release of the material(s), provide ongoing monitoring and assist with identifying the substance. Trained personnel also advise stakeholders, response partners and incident management on threats, hazards and potential mitigation strategies.

Both the BCFPD and the CFD operate hazardous materials response teams for incidents within their respective jurisdictions, as well as providing mutual aid hazardous materials response outside the county.

SEARCH AND RESCUE

All fire agencies in the County have the capability to perform search and rescue operations. BCFPD, SBCFPD, and CFD have equipment and personnel trained to search both on land and water, and in environments requiring technical rescue capabilities.

BCFPD is also the hosting agency for MO-TF1 whose capabilities include collapsed structure, wide area, swiftwater and canine assisted search.

The fire departments generally work with local law enforcement agencies during major search and rescue operations. Other support agencies may include the Missouri State Highway Patrol, the MSHP Water Patrol Division, and other law enforcement agencies.

AIRCRAFT RESCUE AND FIRE FIGHTING (ARFF)

Columbia Regional Airport Public Safety maintains specialized ARFF apparatus and trained personnel to handle aircraft fires and other emergencies. Airport Public Safety also provides emergency medical response.

ANIMAL RESCUES

BCFPD co-coordinates a large animal rescue team with veterinarians from the University of Missouri College of Veterinary Medicine. Both veterinary responders and firefighters maintain and respond with caches of specialized equipment for large animal rescue.

INSPECTIONS AND INVESTIGATION

Fire agencies in Boone County perform routine fire inspections, and maintain personnel trained and certified in fire investigation. In times of disaster, Boone County fire agencies may provide fire inspections and protection in shelters and evacuation reception areas as needed.

EVACUATION

Fire agencies will assist with emergent and large-scale evacuations when needed.

MUTUAL AID

The fire services in Boone County provide support to, and receive assistance from, other fire agencies outside the county through mutual aid agreements. In addition, Boone County fire agencies participate in the Statewide Mutual Aid System as Region F resources. See Appendix 2 for further.

Mutual aid resources responding into Boone County will maintain the administrative procedures of their home agencies but will tactically operate under the local Incident Command.

EOC ACTIVATION

Fire department liaisons will respond to the EOC in those situations requiring its activation. They will coordinate the response efforts of all fire and rescue organizations involved, including state, federal and mutual aid assets.

The ESF-4 representative will maintain and share situational information and progress of the response.

During activation of the EOC for a large-scale emergency or disaster, fire and rescue personnel and equipment will be deployed to the location of greatest need as determined by Incident/Unified Commands in conjunction with the ESF-4 EOC representative.

If the incident requires, and the situation permits, the responding fire department(s) will assist – and be assisted by – other agencies and jurisdictions involved in the incident.

COMMUNICATIONS AND EQUIPMENT

Each fire service agency in Boone County maintains an inventory of resources and equipment which is submitted annually to the Missouri Division of Fire Safety Fire Department Registration database. This inventory list is also located in the EOP Contact and Resource Guide maintained by Boone County OEM.

All the fire departments within Boone County have 24-hour dispatching capability through Boone County Joint Communications (BCJC). Call-up information is maintained within the individual fire departments and provided to BCJC. Call-up will be done per departmental standard operating procedures.

ASSIGNMENT OF RESPONSIBILITIES

The agencies with responsibility to this plan are tasked with the following actions:

- Prioritization, allocation and/or tasking of assets in support of disaster relief and recovery efforts.
- Providing liaison(s) and point of contact for ESF-4 at the EOC.
- Maintaining records of costs for supplies, resources and man-hours used in response to the disaster event.
- Maintaining standard operations guidelines (SOGs) that address fire service responsibilities and needs.
- Maintaining lists of potentially available fire service resources.
- Maintaining current mutual aid agreements, memoranda of understanding, and contractual resources to support disaster response and recovery needs.
- Fire agencies located within Boone County will provide fire suppression, medical response, search and rescue capabilities, hazardous materials incident mitigation, and other services as necessary to meet the demands of a disaster situation that may threaten the health and safety of the citizens of Boone County.

The agencies listed in this annex operate within a unified ICS structure to provide support for fire suppression, search and rescue, hazardous material response, etc. in a coordinated response to the disaster.

Agencies with involvement in the incident will supply a liaison to the EOC when activated and will also track costs and personnel hours to submit to OEM for disaster declaration activities.

BOONE COUNTY OEM

OEM will activate the EOC if indicated by the extent of the incident.

OEM will coordinate with the primary and support agencies listed in this annex to identify available resources to ensure all incident requirements are met. OEM will facilitate requests for mutual aid, and for state and federal resources, and will make provisions for logistical support for incident assets.

OEM will collect and disseminate information about, and in support of, the incident; OEM will gather situational information regarding hazards, resources, status of infrastructure, evacuation routes, etc., and will coordinate with the PIO(s)/JIC to disseminate pertinent information to the public.

The EOC will be the focal point for triage and prioritization decisions regarding the restoration of critical services and infrastructure, and providing response and recovery support to residents and businesses.

OEM will also be responsible for gathering cost information from resource providers to prepare for potential declaration of disaster.

BOONE COUNTY IT/GIS

Boone County IT and GIS will provide mapping and technological capabilities in support of the EOC and the incident in general.

DIRECTION AND CONTROL

In accordance with federal mandates, Boone County government, response agencies, and the municipalities within the county have adopted the National Incident Management System (NIMS) and the Incident Command System (ICS) as the standard for incident response and management.

In an emergency or disaster in which the EOC has been activated, an ESF-4 representative will operate from the EOC and coordinate support of law enforcement activities including information processing and resource management.

Fire service activities and missions will be coordinated by the ESF-4 representative or coordination group, with the supporting and assisting agencies retaining administrative direction and control over their resources. Coordination will be established with the EOC (if activated) and/or IC to prioritize and develop strategies and missions for response and recovery. Priorities will continually be reassessed to develop strategies and address the most critical needs.

Initial control at the disaster/emergency site will be established by the local fire service agency who will maintain contact with, and provide information to, the ESF-4 coordinator at the EOC.

Mutual aid fire agency resource requests will go through the ESF-4 coordinator. Responding assets will be mission tasked by the EOC to the local jurisdiction to be utilized as needed. Mutual aid resources will be managed by the EOC and local incident commanders but will retain the administrative oversight of their home agencies.

CONTINUITY AND SUCCESSION

Lines of succession and continuity of operations plans are maintained at the agency or department level.

Records vital to the continuity of the ESF-4 functions are duplicated and stored at alternate locations.

ADMINISTRATION AND LOGISTICS

Specific operating procedures and protocols are maintained by the participating organizations.

Reports and records are to be developed in accordance with established procedures.

Resources and points of contact are maintained in the EOP Contact and Resource Guide

Mutual aid agreements, memoranda of understanding and contractual resource lists are maintained within individual agencies. Finance and liability procedures are outlined in mutual aid agreements, state and federal laws, and local ordinance.

The EOC will provide support and resources at the request of the incident commander.

Supply requisitions/resource requests will be made through normal channels to the extent possible. When necessary, logistical support will be provided by the EOC, coordinated by ESF-7 Logistics. Unusual expenditures

will be directed to the Emergency Management Director and coordinated with the jurisdictional purchasing agents as per documented purchasing procedures

Each agency will track costs and personnel hours associated with the disaster to provide to OEM for disaster declaration activities. Accurate records of hours worked, and supplies used must be reported to the EOC for use in determining the total cost of the disaster. All actions taken must be recorded as they are essential for future planning and mitigation, response and recovery, and training and exercise. Procedures for use of forms, compiling information, and providing data to the EOC are in the EOC SOG.

Communications for this function will be provided as outlined in the ESF-2 annex of this plan.

APPENDICES

Appendix 1: Fire Station Locations for Columbia and Boone County

Attachment A – Boone County Fire Protection District Station Locations Map

Attachment B – Centralia Fire Department Station Locations Map

Attachment C – Columbia Fire Department Station Locations Map

Attachment D – Columbia Regional Airport Public Safety Locations Map

Attachment E - Southern Boone County Fire Protection District Station Locations Map

Appendix 2: Statewide Fire Mutual Aid System

Attachment A - Organizational Chart

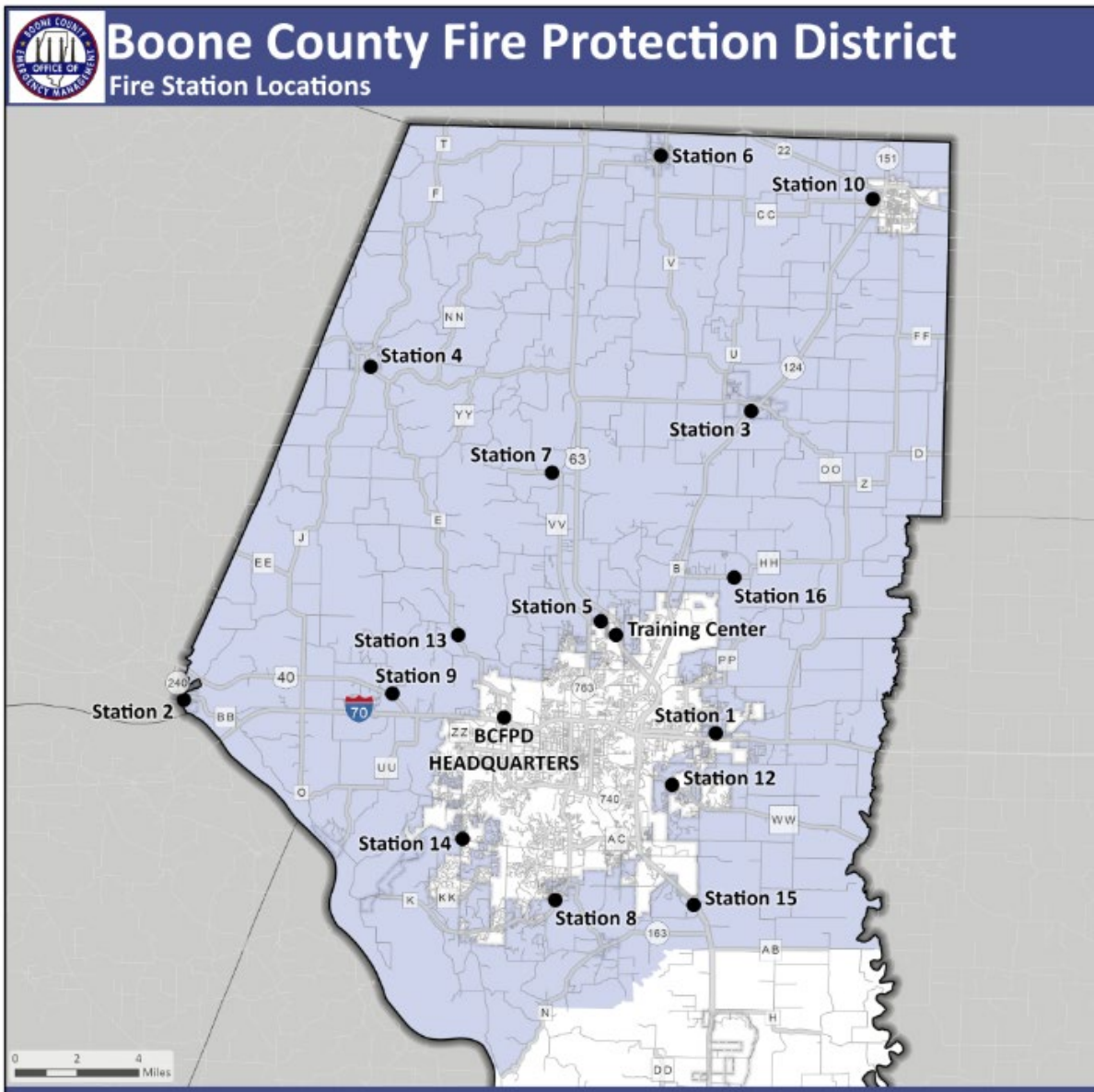
Attachment B - Regional Map

Attachment C - MO Division of Fire Safety Mutual Aid Resource Request Checklist

Appendix 3: Radio Frequencies for Fire Agency Use

ESF-4 APPENDIX 1: FIRE STATION LOCATIONS FOR COLUMBIA AND BOONE COUNTY

ESF-4 APPENDIX 1: ATTACHMENT A – BCFPD FIRE STATIONS



Legend

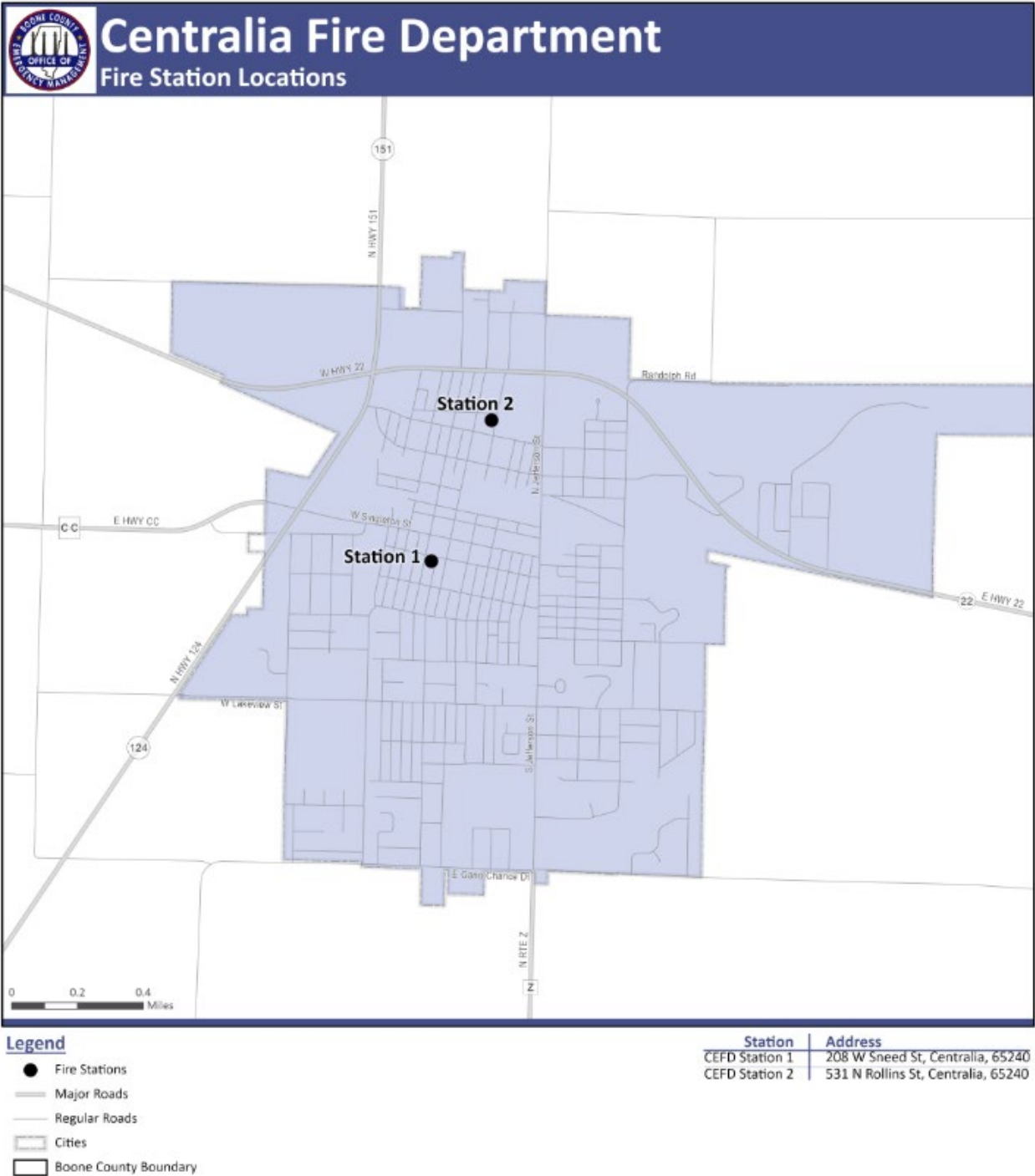
- Fire Stations
- Major Roads
- Regular Roads
- Cities
- Boone County Boundary
- Surrounding Counties

Station	Address
Headquarters	2201 I-70 Drive NW, Columbia, 65202
BCFPD Station 1	11300 S Airport Dr, Columbia, 65201
BCFPD Station 2	104 Central St, Rocheport, 65279
BCFPD Station 3	400 N Rte B, Hallsville, 65255
BCFPD Station 4	685 E Sexton St, Harrisburg, 65256
BCFPD Station 5	1675 E Prathersville Rd, Columbia, 65202
BCFPD Station 6	201 E Wall St, Sturgeon, 65284
BCFPD Station 7	525 W Dripping Springs Rd, Columbia, 65202
BCFPD Station 8	5801 S Rte K, Columbia, 65203
BCFPD Station 9	6951 W Henderson Rd, Columbia, 65202
BCFPD Station 10	11481 E Hwy CC, Centralia, 65240
BCFPD Station 12	980 S El Chaparral Ave, Columbia, 65201
BCFPD Station 13	4801 N Rte E, Columbia, 65202
BCFPD Station 14	3900 Scott Blvd, Columbia, 65203
BCFPD Station 15	5881 S Tom Bass Rd, Columbia, 65201
BCFPD Station 16	6550 E Hwy HH, Columbia, 65202
Training Center	5225 Roger I Wilson Memorial Dr, Columbia, 65202

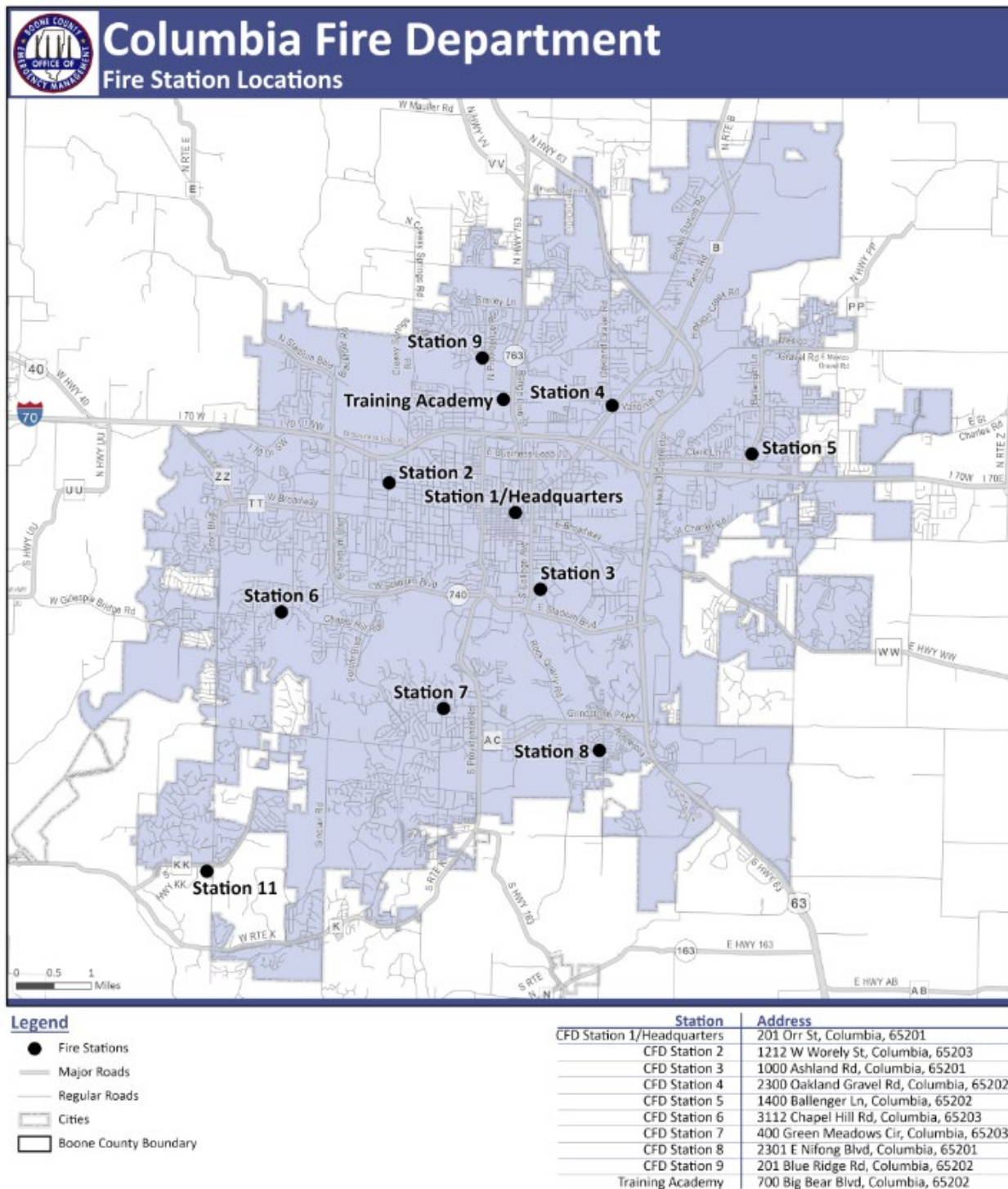
Developed By Boone County IT 911/OEM | 2145 E County Dr Columbia, MO 65202 | (573) 554-7887 | www.showmeboone.com

Map Generated on: 11/14/2019

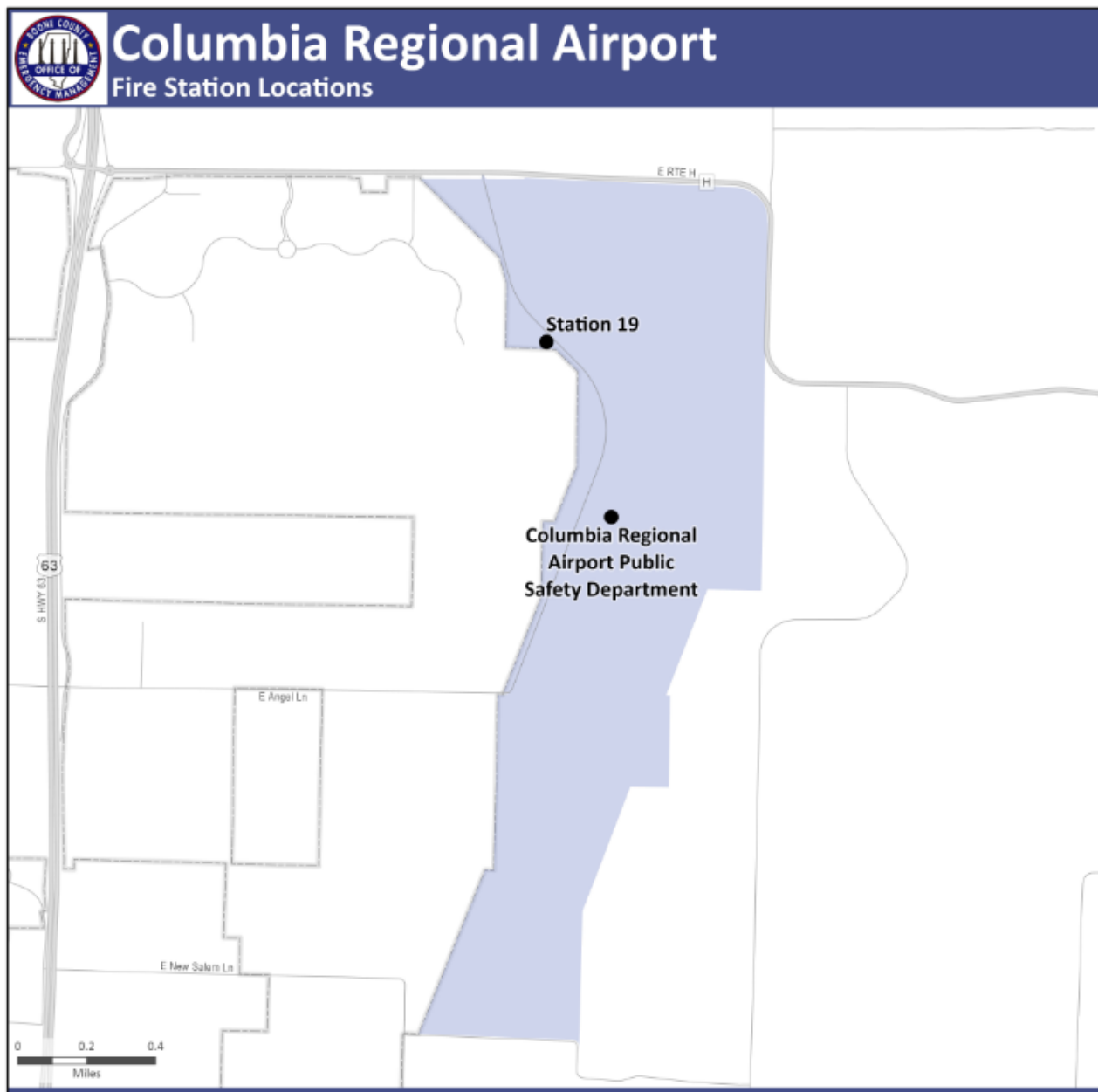
ESF-4 APPENDIX 1: ATTACHMENT B – CEFD FIRE STATIONS



ESF-4 APPENDIX 1: ATTACHMENT C – CFD FIRE STATIONS



ESF-4 APPENDIX 1: ATTACHMENT D – COU FIRE STATIONS

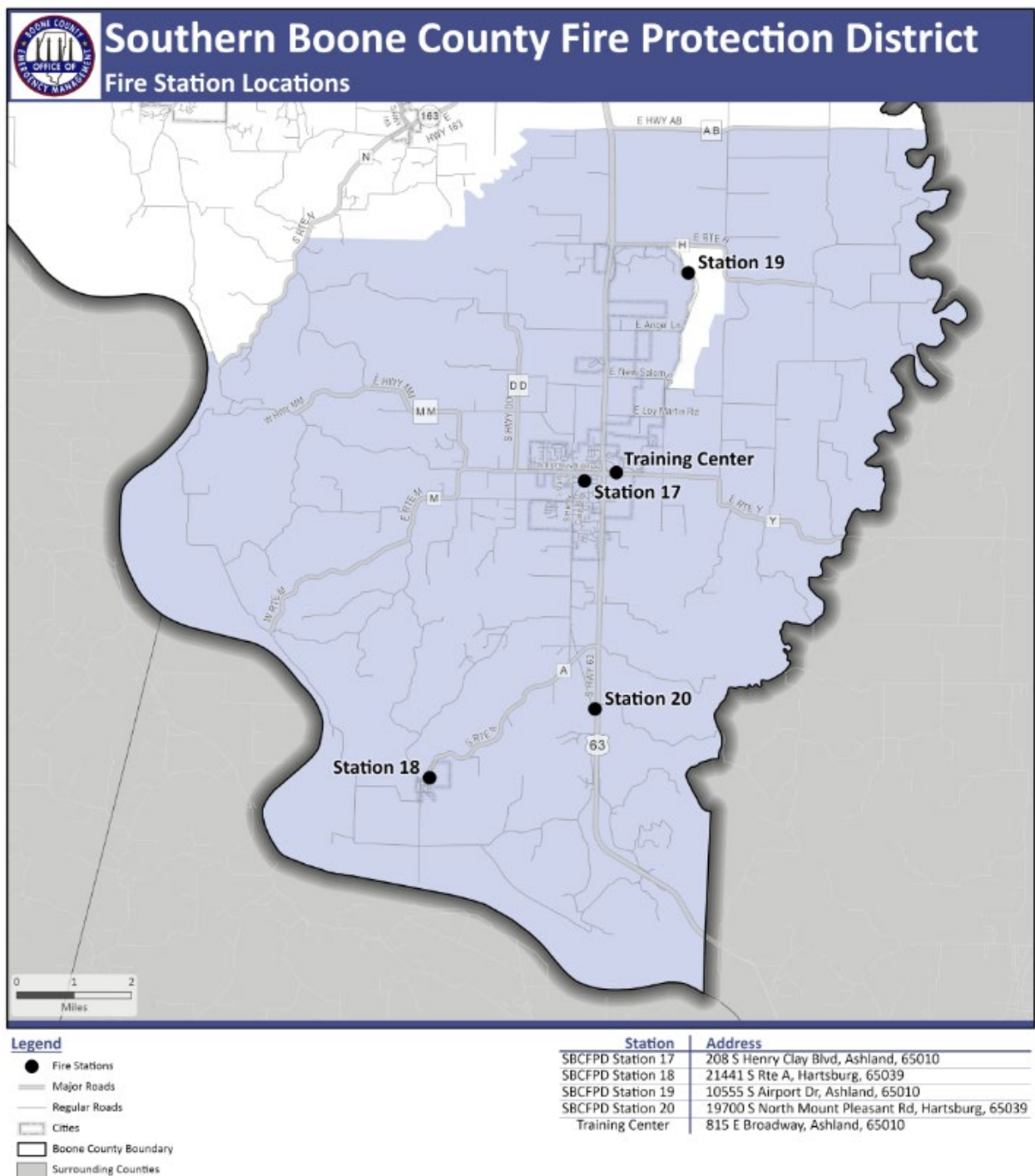


Legend

- Fire Stations
- Major Roads
- Regular Roads
- Cities
- Boone County Boundary

Station	Address
SBCFPD Station 19	10555 S Airport Dr, Columbia, 65201
COU APS	11300 S Airport Dr, Columbia, 65201

ESF-4 APPENDIX 1: ATTACHMENT E – SBCFPD FIRE STATIONS



ESF-4 APPENDIX 2: STATEWIDE FIRE MUTUAL AID SYSTEM

Statewide Fire Mutual Aid System

ORGANIZATION

The fire service includes all public entities furnishing fire protection within the state and all agencies and departments of the state which provide fire protection services. In the event of a major emergency or a state-wide disaster, all fire protection agencies become an organizational part of the system.

Appendix 2 Attachment A to this annex provides an organizational chart for the State Fire Marshal's Mutual Aid System.

Appendix 2 Attachment B to this annex shows the Regional Map and the state divided into the nine mutual aid regions.

LOCAL REPRESENTATION

The fire chief or senior fire service official of each local entity providing fire protection is to serve as fire service representative to the respective Regional Coordinator.

REGIONAL FIRE & RESCUE COORDINATOR

Regional Coordinators are selected at the pleasure of the MO Association of Fire Chiefs to serve within their respective regions. One or more alternate Area Coordinators are appointed to serve in the absence of the Regional Coordinator.

Region F Fire Mutual Aid Coordinator contact information can be found in the EOP Contact and Resource Guide. Coordinator and other information is also at <https://dfs.dps.mo.gov/programs/resources/mutual-aid.php>.

STATE MUTUAL AID COORDINATOR

The State Mutual Aid Coordinator is a representative of the State Fire Marshal in the Department of Public Safety, Division of Fire Safety. The State Mutual Aid Coordinator is responsible for taking appropriate action on requests for mutual aid received through the Regional Coordinators and serves on the Unified Command in the State Emergency Operations Center, when activated.

To contact the State Mutual Aid Coordinator:

(573) 751-1601

(573) 821-0937

ACTIVATION OF THE PLAN AND REQUESTING RESOURCES

This information is presented to assist the local fire chief or Incident Commander (IC) in obtaining emergency mutual aid assistance on a timely basis. This information is not intended to modify or change any existing agreements or operational plans between agencies. Attachment C to this appendix – the Mutual Aid Resource Request Checklist - should be used to predetermine information that will be needed by the Area and/or Regional Mutual Aid Coordinators.

When it is determined that jurisdictional resources are inadequate to cope with the emergency at hand, the **IC** should take the following steps:

- Activate the local mutual aid plan.
- Contact the Area or Regional Mutual Aid Coordinator.
- Request resources from neighboring fire services. Identify:
 - The agency and individual making the request.
 - The mission type.
 - The kind, type and quantity of resources.
 - The time and place the resources are needed.
 - Estimated length of deployment.
 - Contact information.
 - Preferred communications methods and frequencies, phone numbers, etc.

The IC should prepare to receive and manage requested mutual aid resources as they arrive.

The **Regional Coordinator**, upon notification, is to:

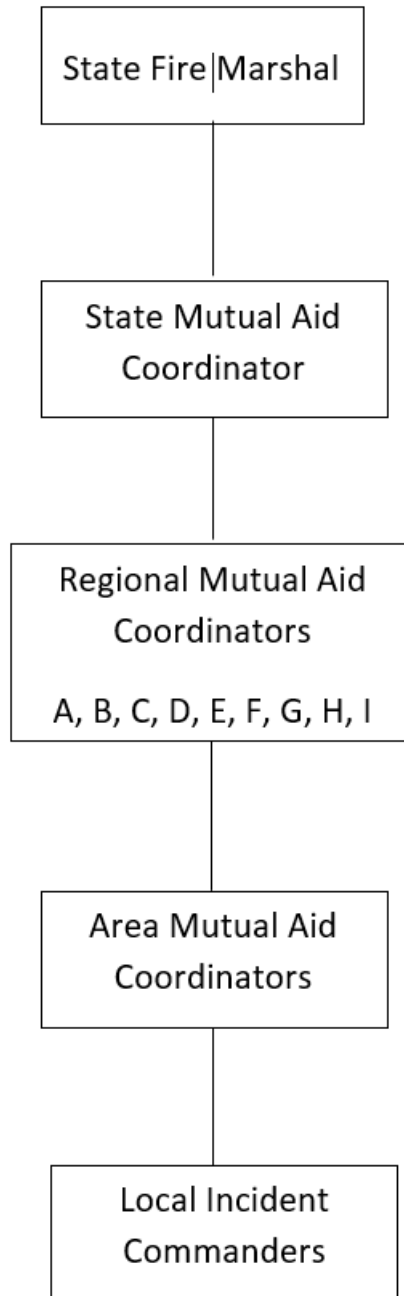
- Evaluate resource availability within the operational area.
- Coordinate the dispatch of requested resources from within the region.
- Notify the State Mutual Aid Coordinator and report known situation and resource status of the region.

The **State Mutual Aid Coordinator**, upon notification, will:

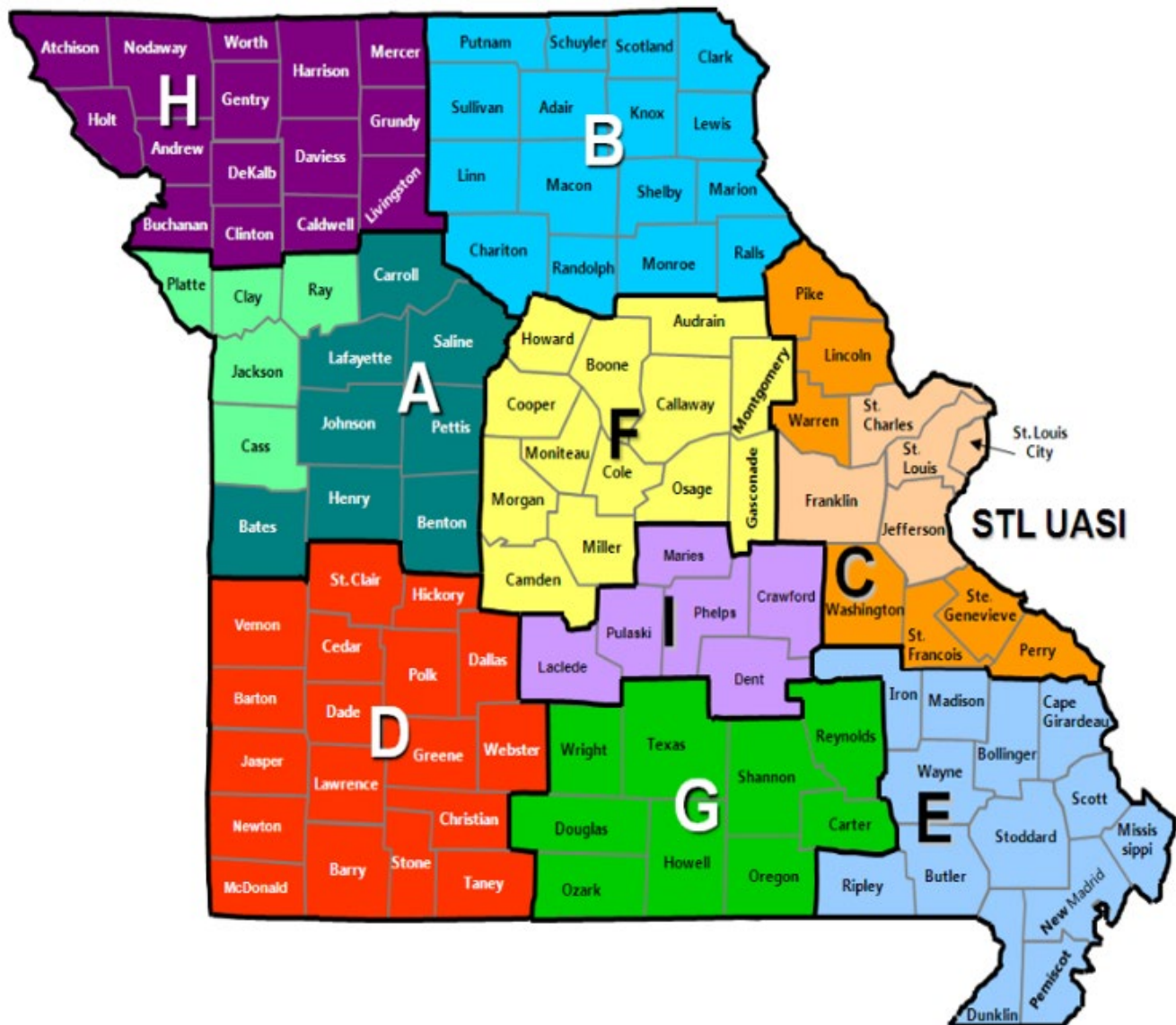
- Evaluate conditions and resource availability throughout the state.
- Alert all other Regional Coordinators of anticipated inter-regional dispatch of fire service resources.
- Select regions from which resources are to be mobilized to fulfill requests.
- Coordinate the response of inter-regional mutual aid resources.
- Act as ESF-4 representative in the State Emergency Operations Center (SEOC).
- Process messages and fill requests for fire services received from the SEOC.

**ESF-4 APPENDIX 2: ATTACHMENT A - STATEWIDE FIRE MUTUAL AID SYSTEM
ORGANIZATIONAL CHART**

Statewide Fire Mutual Aid System Organizational Chart



ESF-4 APPENDIX 2: ATTACHMENT B - STATEWIDE FIRE MUTUAL AID SYSTEM REGIONAL MAP



ESF-4 APPENDIX 2: ATTACHMENT C - MUTUAL AID RESOURCE REQUEST CHECKLIST

MUTUAL AID RESOURCE REQUEST CHECKLIST

Event Tracking # _____ EVENT: _____

DATE: _____ TIME: _____ PRIORITY: ☐ IMMEDIATE ☐ HIGH ☐ MEDIUM ☐ LOW

REQUESTING PARTY: _____ PHONE/CONTACT INFO: _____

REQ. RECVD BY: _____ REQ. FORWARDED TO: _____

RESOURCE REQUESTED: _____

MISSION: _____

LOGISTICAL NEEDS:

GAS _____

WATER _____

FOOD _____

LODGING _____

FORCE PROTECTION: ☐ LAW ☐ MEDICAL ADVANCE TEAM: ☐ YES ☐ NO

OTHER _____

APPARATUS SIZE/WEIGHT RESTRICTIONS _____

AIR RESOURCE INFO

LANDING ZONE DETAILS:

LOCATION _____

SIZE _____

OBSTRUCTIONS/HAZARDS _____

OXYGEN RESUPPLY _____

FUELING _____

HANGER SPECIFICATIONS _____

ON SCENE DATE/TIME REQUESTED: _____

ESTIMATED DURATION OF DEPLOYMENT: _____

STAGING LOCATION: _____

REPORTING TO: _____

COMMUNICATIONS (RADIO FREQ/PHONE, ETC.):

RESOURCE COMING FROM (DEPARTMENTS AND APPARATUS ID):

NAME/NUMBER FOR RESOURCE CONTACT: _____

NOTES: _____

FAX TO:

REQUESTING DEPARTMENT NAME: _____

ATTN: _____

FAX #: _____

RESPONDING DEPARTMENT NAME: _____

ATTN: _____

FAX #: _____

MISSION VERIFIED BY:

MUTUAL AID COORDINATOR: _____

SIGNATURE _____

DATE _____

TIME _____

ASSIGNED MISSION NUMBER _____

ESF-4 APPENDIX 3: RADIO FREQUENCIES FOR FIRE AGENCY USE

Radio Frequencies for Fire Agency Use

Columbia Fire (Base – Non-repeated) Purple

Columbia Fire (Repeater)

Boone County Fire (Base) Orange

Boone County Fire (Repeater) Green

Boone County Fire (UHF Link)

Statewide Fire Mutual Aid (Red) VFire21

Special MO Fire Ground (Blue) VFire 23

Fireground (Gold)

Fireground (Brown)

Fireground (Gray)

Fireground (Yellow)

Fire Mutual Aid (White) VFire 22

VFire 24(Crimson)

VFire 25 (Coral)

VFire 26 (Teal)

ESF-5: INFORMATION AND PLANNING

ESF-5 defines the responsibilities of emergency management partners in regard to coordination, collection and analysis of information, planning, resource requests, financial management, documentation and any other support functions required to prepare for, respond to and recover from emergencies and disasters impacting Boone County.

Participating agencies with responsibilities in this annex:

Boone County Office of Emergency Management (BCOEM or OEM)

Boone County government offices and departments

Boone County Joint Communications (BCJC)

City of Ashland

City of Centralia

City of Columbia

City of Hallsville

City of Harrisburg

City of Hartsburg

City of Huntsdale

City of Pierpont

City of Rocheport

City of Sturgeon

State agencies with stakeholder interests within Boone County

Structural Assessment and Visual Evaluation Volunteer Program (SAVE)

SITUATION AND ASSUMPTIONS

SITUATION

Boone County Office of Emergency Management (BCOEM) maintains responsibility for emergency management functions for all unincorporated areas and each municipality within Boone County. Letters delegating BCOEM as the emergency management entity for each of the participating municipalities are on file with the County government.

BCOEM maintains the Boone County Emergency Operations Center (EOC) within the Emergency Communications Center (ECC) building at 2145 County Drive. The EOC can be activated and staffed by Boone County authorities and partner agencies to support large-scale, complex or extended incidents.

Boone County Joint Communications (BCJC) is also located in the Emergency Communication Center, is staffed 24 hours a day, and has the capability to support emergency and disaster communications needs.

The ECC is a secure EF5-rated facility with redundant power and communications systems, and supplies and space to feed and shelter EOC and BCJC personnel while working 24-hour disaster operations.

BCOEM has a Continuity of Operations Plan (COOP), which has pre-identified facilities and support that may be used if there is a need to establish an alternate EOC. Should the primary EOC become inoperable, the alternate EOC would become the official site for all municipal and county officials, and departments/agencies having emergency functions.

Space will be provided in the EOC for the chief executives, direction and control staff, and support personnel. State and/or federal officials that support disaster operations will also be provided space in the EOC to operate as needed.

Detailed information on resources and points of contact can be found in the EOC Contact and Resource Guide.

ASSUMPTIONS

Most emergency situations are handled routinely by emergency response personnel and can be managed at the field level under established departmental procedures.

When a large-scale emergency/disaster occurs or threatens to occur, the EOC will be activated in a timely manner. Local officials will respond as directed in this annex and the Basic Plan.

Should an evacuation of the EOC become necessary, operations can be successfully managed from nearby safe locations.

CONCEPT OF OPERATIONS

GENERAL

In accordance with federal mandates, management of local disasters and emergencies will be initiated and conducted using the concepts and principles of the National Incident Management System (NIMS). On-scene management and coordination of responses will utilize the Incident Command System (ICS).

Most incidents within Boone County are managed locally by the county and the municipal governments using local resources. This EOP and the corresponding standard operating procedures establish the processes used to respond to these incidents. The emergency management activities described in this annex are an extension of normal day-to-day activities and deal only with those situations that could completely exhaust all available resources.

ESF-5 will be coordinated by representation from one or all emergency management agencies involved in the incident. Entities with ESF-5 responsibilities will provide liaisons to the EOC, if activated, to form an ESF-5 coordination group.

Emergency management partners and agency liaisons may locate to, and operate from, the EOC, or may retain a virtual presence with the EOC. The EOC will serve as a central point from which partners will coordinate to maximize effective response to multi-agency and multi-jurisdictional emergencies by facilitating and improving the flow of information and coordination within and between operational levels of the system. This coordination will provide for effective mobilization, deployment, utilization, tracking and demobilization of resources, and will enhance intelligence gathering and information sharing capabilities.

ESF-5 will prioritize, allocate and task assets in coordination with the other ESFs to support the disaster response and recovery efforts. Priorities will continually be reassessed to develop strategies and address the most critical needs.

EOC ACTIVATION

In the event of an incident requiring a large coordinated management structure, the EOC can be activated by the jurisdiction's executive leadership and the EMD in accordance with the Basic Plan.

The County Commission and/or municipality executives along with representatives of county and municipal departments will assemble in the EOC – or maintain a virtual presence - to coordinate and support emergency response operations within their respective jurisdictions.

Disaster response services assigned to the incident will provide staffing of emergency support functions in the EOC. Staffing of the EOC will be determined by the needs of the incident. Operational periods and work shifts will be established to provide appropriate coverage.

For those emergency support services that do not operate from the EOC, contact will be maintained with the EOC through a designated liaison. Personnel provided by the various organizations/agencies to support emergency operations will remain under the direction and control of the sponsoring organization but will be mission assigned by the EOC and/or the IC.

With the EOC activated, the on-scene incident command post and ICS structure will continue to function for as long as necessary. The on-scene incident commander will direct and control operations at the disaster site. Close coordination will be maintained between the EOC and the disaster scene(s) to maintain situational awareness, identify needs and manage resources and information. The EOC will not interfere with the internal operations of the involved agencies but will monitor the situation and provide support as requested, including logistical and administrative support of response personnel assigned to the disaster.

Detailed instructions, checklists and information for functioning in the EOC are available in the Boone County EOC SOGs maintained by BCOEM.

EOC ACTIVATION LEVELS

The level of an EOC activation will be dependent on severity of incident, if operations extend beyond an Incident or Unified Command (IC/UC), and if resource needs exceed local capabilities. The level is determined by the EMD in coordination with the leadership of the affected jurisdiction.

Level 4 [Daily operations/monitoring] - EOC key personnel notified and maintaining a ready to respond posture.

Level 3 [Standby/enhanced monitoring] - EOC key personnel notified and maintaining a ready to respond posture.

Level 2 [Partial activation] - EOC staff on site at the EOC.

Level 1 [Full Activation] - EOC staff and incident appropriate ESF agency partners on site at the EOC.

EOC operations will continue as determined by the situation and will conclude by order of the executive officer(s) of the impacted jurisdiction(s) and/or the EMD.

RESOURCE MANAGEMENT

Local resources will be used first before outside assistance is requested from mutual aid, the state and/or federal government. The first resources to be identified will be those that are under the control of, or are readily available to, the County and municipal governments.

For large-scale, complex, or long-term incidents that are beyond the capability of the local resources, assistance can be provided through mutual aid, by request to the State and with federal resources.

Mutual aid resources will remain under the authority of their home agencies but will be mission assigned by ESF-5 in the EOC and utilized on site by the Incident Commander.

Incidents may be typed to support decision-making regarding resource requirements. See Appendix 2.

MESSAGING

Procedures for handling messages coming in and out of the EOC (i.e. review, verification, distribution, etc.) are outlined in Appendix 3 to this ESF annex.

Information received in the EOC from field units and other reliable sources will be compiled and reported to the State Emergency Management Agency (SEMA) as requested and/or required. Information will be recorded on appropriate forms, in WebEOC, and will be displayed as needed in the EOC.

Emergency instructions to the public will emanate from the EOC in coordination with the Joint Information Center (JIC) and will be disseminated through all appropriate channels. See ESF-2 Communications for further.

DAMAGE ASSESSMENT

Following a disaster, several damage assessments may be conducted. The initial assessment of the impact of the incident is done using local resources. SEMA, if requested, will conduct an assessment to determine the need for state resources and/or federal assistance. If warranted, the state will request a joint federal/state/local assessment to determine if the incident is of such a magnitude to warrant federal assistance.

Damage assessment is cooperatively accomplished by OEM, public works, public safety responders, Red Cross and SAVE volunteers. In the case of a potential federal declaration, representatives from FEMA, SEMA and the Small Business Administration (SBA) will participate in the damage assessment team as well. OEM will maintain a record of the assessment and coordinate with SEMA and FEMA if and when circumstances require the issuance of a state and/or federal disaster declaration. A properly completed damage assessment may assist Boone County and the State of Missouri in receiving a Presidential Declaration of Disaster and potential cost reimbursement.

Damage assessment personnel should capture damage locations by documenting the USNG location. Other documentation should include:

- documents showing ownership
- lease, rental agreement or other documents showing legal responsibility for restoration

- maintenance records or other documents showing that the facility was in use at the time of the disaster
- plans that show that improvements to natural features were made and maintained.

All damage will be photographed.

Once damage has been identified, potential applicants should document the work and estimated, or actual cost required to perform emergency work or restore damaged infrastructure. To be considered, work must be: (1) required as a result of the disaster; (2) be within a jurisdiction being assessed (with the exception of sheltering and evacuation activities); and (3) be the legal responsibility of a potential applicant.

REQUEST FOR FEDERAL ASSISTANCE

Any requests for state or federal assistance will require a declaration of a state of emergency/disaster declaration from the County Commission. State and/or federal officials will support disaster operations as appropriate by coordinating with the EOC.

TERRORISM

In the event of a terrorist incident, local EOC operations will coordinate with a Joint Operations Center (JOC) with the Federal Bureau of Investigation (FBI) as the lead federal agency. These agencies will work with state and local law enforcement officials, and federal, state and local emergency management officials in a coordinated response. As the crisis transitions into recovery, the role switches to the Federal Emergency Management Agency (FEMA) as the lead federal agency for disaster recovery. For local EOC operations, officials may designate a point of contact to the JOC or have a liaison positioned at the facility for coordination purposes.

ASSIGNMENT OF RESPONSIBILITIES

The agencies with responsibility to this plan are tasked with the following actions:

- Prioritization, allocation and/or tasking of emergency management assets in support of disaster relief and recovery efforts.
- Providing liaison(s) and point of contact for ESF-5 at the EOC.
- Maintaining records of costs for supplies, resources and man-hours used in response to the disaster event.
- Maintaining standard operations guidelines (SOGs) that address emergency management responsibilities and needs.
- Maintaining lists of potentially available emergency management resources.
- Maintaining current mutual aid agreements, memoranda of understanding, and contractual resources to support disaster response and recovery emergency management needs.

BOONE COUNTY OEM

OEM has the responsibility for the following:

- Activating the EOC if indicated by the extent of the incident; coordinating and managing EOC operations. Maintaining the operational readiness of the EOC necessary for a continuous 24-hour operation (i.e., identify EOC personnel, arrange for EOC security, stock administrative supplies and equipment, prepare status boards, furnish maps to plot data and set up informational displays).
- Sending out alerts and notifications.
- Implementing message handling procedures (see Appendix 3).
- Coordinating with the ESF liaisons to identify available resources to ensure all incident requirements are met. OEM will facilitate requests for mutual aid, and for state and federal resources, and will make provisions for logistical support for incident assets.
- Collection and dissemination of information and intelligence about, and in support of, the incident; OEM will gather situational information regarding hazards, resources, status of infrastructure, evacuation routes, etc., and will coordinate with the PIO(s)/JIC to disseminate pertinent information to the public.
- Coordinating briefings and conference calls for information sharing and will make notifications as required.
- Gathering cost information from resource providers to prepare for potential declaration of disaster.
- Coordinating with ESF-2 to ensure disaster communications capabilities.

All departments, agencies, and individuals support the emergency management function as follows:

- Coordinating activities with the EOC through established lines of communications or by designating a liaison to the EOC.
- Advising emergency management in their area of expertise/responsibility.
- Defining SOGs and instances during which specific emergency authorities are assumed by a designated successor, the circumstances under which this authority would become effective, and when it would be terminated.
- Compiling damage assessment and cost information.
- Tabulate expenditure data for the emergency.

In addition to the responsibilities above, the following have these assignments:

BOONE COUNTY IT/GIS

Boone County IT and GIS will provide mapping and technological capabilities in support of the EOC and the incident in general.

BOONE COUNTY COMMISSION

The primary responsibility for disaster response and recovery in each municipality rests with the Authority Having Jurisdiction (AHJ) – usually the city administrator or mayor. In unincorporated Boone County, the AHJ is the Presiding Commissioner.

Tasks related to this responsibility includes:

- Overseeing the Boone County Office of Emergency Management and implementation of this EOP.
- Declaring a state of emergency and requesting state and federal assistance when appropriate [See Appendix 7]
- Summarizing damage assessment information and submitting appropriate reports and documentation.

DIRECTION AND CONTROL

In accordance with federal mandates, Boone County government, response agencies, and the municipalities within the county have adopted the National Incident Management System (NIMS) and the Incident Command System (ICS) as the standard for incident response and management.

Emergency management activities will be coordinated by the ESF-5 representative or coordination group, with the supporting and assisting agencies retaining administrative direction and control over their resources. Coordination will be established with the EOC (if activated) and/or IC to prioritize and develop strategies and missions for response and recovery. Priorities will continually be reassessed to develop strategies and address the most critical needs.

Mutual aid resources will be managed by the EOC and local incident commanders but will retain the administrative oversight of their home agencies.

CONTINUITY AND SUCCESSION

The lines of succession for elected officials and municipal and county departments are identified in the Basic Plan Section. Lines of succession and COOP plans will be maintained by each department or agency.

If the primary EOC is not able to function (i.e., EOC is damaged, inaccessible, etc.), an alternate EOC will be activated per the BCOEM COOP plan. It is the responsibility of the EMD to manage the alternate EOC, coordinate the relocation of staff members to this facility, and transfer direction and control authority from the primary EOC.

Should it become necessary to evacuate the entire county, the EOC will be moved to the nearest safe location.

Essential records vital to the emergency management function will be duplicated and maintained at alternate locations.

ADMINISTRATION AND LOGISTICS

Specific operating procedures and protocols are maintained by the participating organizations.

Resources and points of contact are maintained in the EOP Contact and Resource Guide

Mutual aid agreements, memoranda of understanding and contractual resource lists are maintained within individual agencies.

Procedures for use of forms, compiling information, and providing data to the EOC are located in the EOC SOG.

The EOC will provide support and resources at the request of the incident commander.

Supply requisitions/resource requests will be made through normal channels to the extent possible but will be made through the EOC when necessary and coordinated by ESF-7 Logistics. Unusual expenditures will be directed to the Emergency Management Director and coordinated with the jurisdictional purchasing agents as per documented purchasing procedures

Each agency will track costs and personnel hours associated with the disaster to provide to OEM for disaster declaration activities. Accurate records of hours worked, and supplies used must be reported to the EOC for use in determining the total cost of the disaster. All actions taken must be recorded as they are essential for future planning and mitigation, response and recovery, and training and exercise.

Supply requisitions/resource requests will be made through normal channels as much as possible but will be made through the EOC when necessary, coordinated by ESF-7. Unusual expenditures will be directed to the EMD and coordinated with the jurisdictional purchasing agents as per documented purchasing procedures.

Accurate records of hours worked, and supplies used must be reported to the EOC for use in determining the total cost of the disaster. All actions taken must be recorded as they are essential for future planning and mitigation, response and recovery, mitigation, training and exercise.

Requests for assistance and general incoming/outgoing messages will be handled using the procedures and forms in the EOC Standard Operating Guidelines.

A record of all persons entering and departing the EOC will be maintained by security personnel at the entrance. All personnel will be issued a pass to be worn while in the EOC, to be returned when departing from the premises.

Communications for this function will be provided as outlined in the ESF-2 annex of this plan.

APPENDICES

Appendix 1: EOC Organization Chart

Appendix 2: Disaster Classifications

Appendix 3: Message Handling Procedures

Attachment A – EOC/Call Center Communications Log

Attachment B – EOC Significant Events Log

Appendix 4: SEMA Local Situational Awareness Report

Appendix 5: Damage Assessment Tools

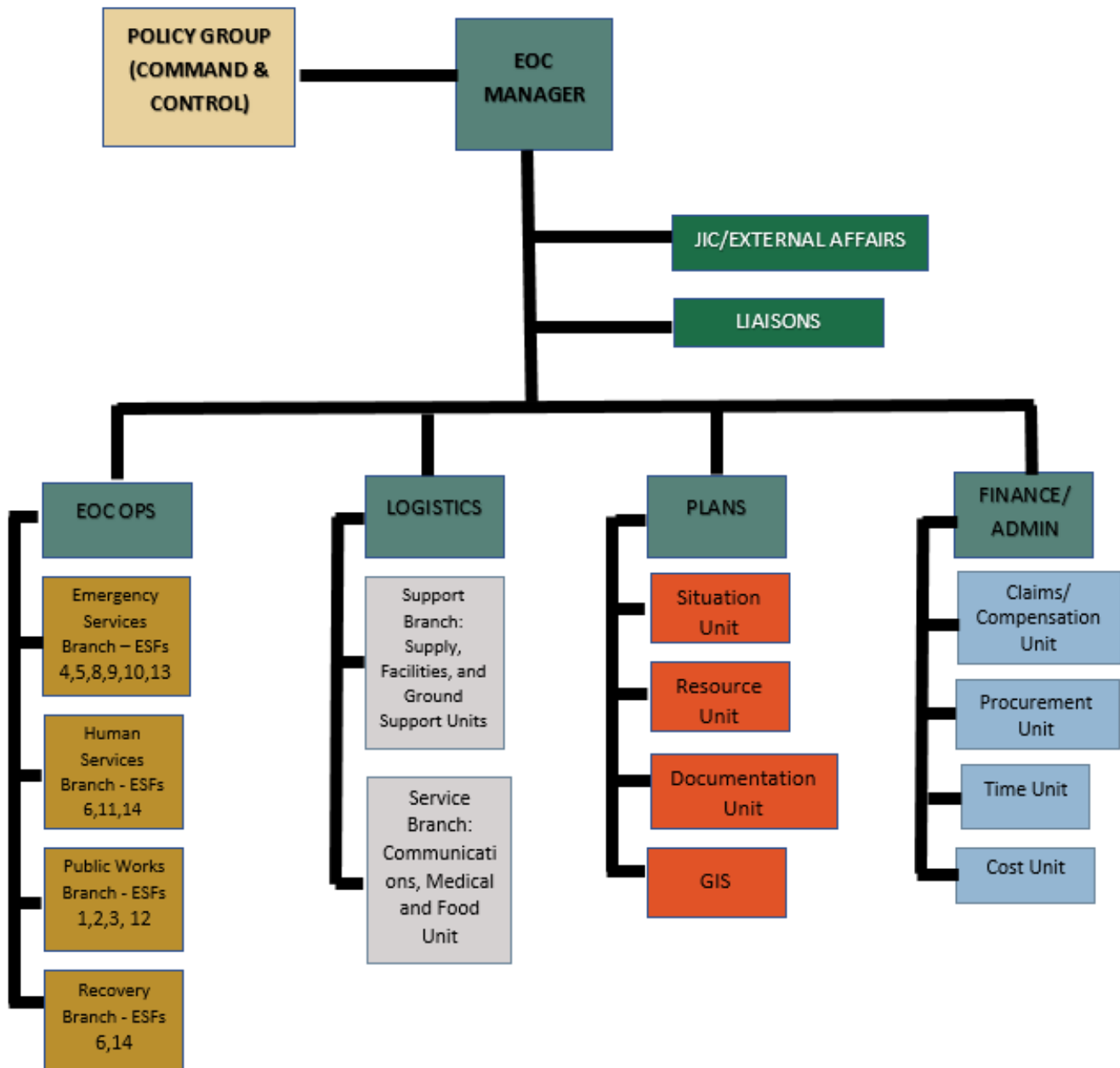
Attachment A – Damage Categories

Attachment B – Loss Estimation Form

Appendix 6: Disaster Declaration Process

ESF-5 APPENDIX 1: EOC ORGANIZATION CHART

The key individuals and agencies that will direct/coordinate operations from the Boone County EOC are maintained in the EOC Contact and Resource Guide and are not published in this appendix due to frequent changes and security. This information will be maintained by the Boone County EMD and BCJC.



ESF-5 APPENDIX 2: DISASTER CLASSIFICATIONS

Incidents may be typed to support decision-making regarding resource requirements. Incident types are based on the following five levels of complexity. (Source: U.S. Fire Administration)

Type 5	<ul style="list-style-type: none"> • Can be handled with one or two single resources with up to six personnel. • Command and General Staff positions (other than IC) are not activated. • No written Incident Action Plan (IAP) is required. • Contained within the first operational period and often within an hour to a few hours after resources arrive on scene. • Examples include a vehicle fire, an injured person, or a police traffic stop.
Type 4	<ul style="list-style-type: none"> • Command staff and general staff functions are activated only if needed. • Several resources required to mitigate, including task forces or strike teams. • Usually limited to one operational period in the control phase. • No written Incident Action Plan (IAP) is required, but a documented operational briefing is completed for all incoming resources. • Agency administrator tasks includes operational plans with objectives and priorities.
Type 3	<ul style="list-style-type: none"> • When capabilities exceed initial attack, appropriate ICS positions should be added to match the complexity of the incident. • Some or all Command and General Staff positions may be activated, as well as Division/Group Supervisor and/or Unit Leader level positions. • A Type 3 Incident Management Team (IMT) or incident command organization may manage initial actions until transition to a Type 1 or 2 IMT. • The incident may extend into multiple operational periods. • A written IAP may be required for each operational period.
Type 2	<ul style="list-style-type: none"> • Extends beyond the capabilities for local control and is expected to go into multiple operational periods. May require regional and/or national resources to effectively manage operations, and fill command and general staff roles. • Most or all Command and General Staff positions are filled. • A written IAP is required for each operational period. • Many of the functional units are needed and staffed. • Operations personnel normally do not exceed 200 per operational period and total incident personnel do not exceed 500 (guidelines only). • The agency administrator is responsible for the incident complexity analysis, agency administrator briefings, and the written delegation of authority.
Type 1	<ul style="list-style-type: none"> • The most complex, requiring national resources to safely and effectively manage. • All Command and General Staff positions are activated. • Operations personnel often exceed 500 per operational period and total personnel will usually exceed 1,000. • Branches need to be established. • Use of resource advisors at the incident base is recommended. • High impact on the local jurisdiction, requiring additional staff for administrative and support functions.

<https://emilms.fema.gov/IS200b/ICS0106320text.htm> (Source: U.S. Fire Administration)

ESF-5 APPENDIX 3: MESSAGE HANDLING PROCEDURES

All messages coming into the EOC by any means of communication (i.e. radio, telephone, cellular phone, etc.) will be acknowledged by recording the information on an ICS-213 Message Form.

Each incoming and outgoing message will be entered into the Communications Log (see Attachment B to this Appendix). The log will show date and time the message was received along with the individual/department sending it.

After the message has been logged, it will be given to OEM staff for routing to the appropriate function coordinator(s). A copy of each message that contains damage information will also be given to the damage assessment coordinator for collection, analysis and display of information in the EOC.

Key disaster related information (i.e., casualties, health concerns, property damage, fire status, size of risk area, scope of the hazard to the public, number of evacuees, radiation dose, etc.) will be entered into the Significant Events Log (Attachment C to this Appendix).

The message receiver is responsible for checking the accuracy of the message

The response to the message will be disseminated as appropriate.

The means to communicate messages will include radio, telephone, cellular phone, electronic devices, runner, etc.

Personnel required for message handling will be furnished by the EMD and/or BCJC.

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ESF-4 APPENDIX 5: SEMA LOCAL SITUATIONAL AWARENESS REPORT

Information included in this summary may be entered directly into WebEOC.

Local Jurisdiction Situational Awareness Report

Date: _____

Time: _____

Contact Information: (Provide as much information as possible.)

County:		Jurisdiction:	
Name:	Title:	Phone:	
Email:	Fax #:	Cell:	

Local Emergency Operations Center Status:

LEOC Activated:	YES	NO	Hours of Operation:
Contact Name:			Title:
Telephone:	FAX:		Cell:
LEOC Physical Location:			

Situation Summary: (Summarize the impact the disaster event had on the listed topics.)

Summary of Event: (Include date & time of actual event.)	
Fatalities:	Injuries:
Shelter Status: (Number of open shelters, location of shelters, people in shelters, etc.)	
Primary Home/Business Damage:	
Power Outages:	
Medical/Fire/LE Issues:	

Utility (Electric, Water, Sewage) Issues:
Road/Bridge Issues:

Local Actions: (What actions have you taken?)

Summary of Actions Taken:

*****This is a situational awareness document ONLY. To request resources from the state, you MUST complete and submit a separate "Resource Request Form". Submit a "Local Jurisdiction Damage Assessment Summary" as detailed information becomes available.*****

SEMA FAX #: (573) 634-7966

APPENDIX 5: DAMAGE ASSESSMENT TOOLS

ESF-5 APPENDIX 5: ATTACHMENT A – DAMAGE CATEGORIES

AFFECTED – Dwellings with minimal damage to structure and/or contents and the home is habitable without repairs.

MINOR – The home is damaged and uninhabitable but may be made habitable in a short period of time. Some of the items that determine minor damage are **1)** windows or doors blown in, and/or **2)** one foot or more of water/sewer backup in basement.

MAJOR - The home has sustained structural or significant damages, is uninhabitable and requires extensive repairs. Any one of the following may constitute major damage: **1)** substantial failures of structural elements (e.g. walls, floors, foundations, etc.), **2)** one foot or more of water on the first floor, **3)** on slab or crawl space, major damage may occur at 4' or higher depending on the height of primary electrical/wiring and length of inundation.

DESTROYED – The home is a total loss or damaged to such an extent that repairs are not economically feasible. Any one of the following may constitute a status of “destroyed”: **1)** Structure is not economically feasible to repair, **2)** structure is permanently uninhabitable, **3)** complete failures to major components of structure (walls, foundation, etc.), **4)** only foundation remains, **5)** two or more walls destroyed and room substantially damaged, **6)** house pushed off foundation, **7)** an unaffected structure that will require removal or demolition (i.e. in imminent danger due to impending landslides, mudslides or sinkholes).

Note: Mobile homes with similar damage may be more heavily impacted and less cost effective to repair resulting in being categorized at a higher damage level.

ESF-5 APPENDIX 5: ATTACHMENT B - LOSS ESTIMATION FORM

Loss Estimation Form

Hazard Event _____

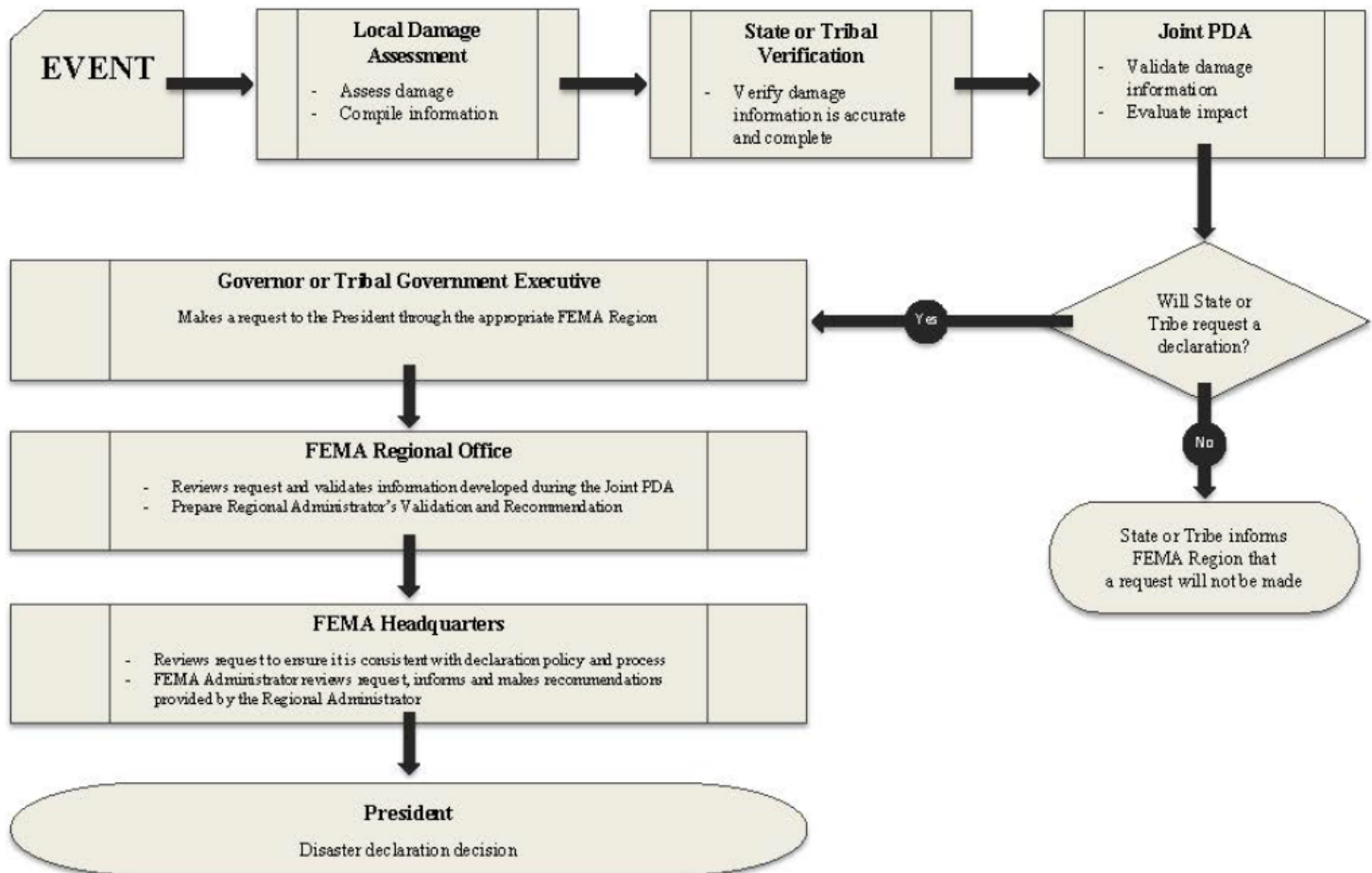
Structure Loss					Content Loss						
Name/Description of Structure	Structure Replacement Value (\$)	X	Percent Damage (%)	=	Loss to Structure (\$)	Replacement Value of Contents (\$)	X	Percent Damage (%)	=	Loss to Contents	
		X		=			X		=		
		X		=			X		=		
		X		=			X		=		
		X		=			X		=		
		X		=			X		=		
		X		=			X		=		
		X		=			X		=		
		X		=			X		=		
		X		=			X		=		
		X		=			X		=		
Total Loss to Structure						Total Loss to Contents					

Structure Use and Function Loss									
Name/Description of Structure	Average Daily Operating Budget (\$)	X	Functional Downtime (# of days)	+	Displacement Cost per Day (\$)	X	Displacement Time (# of days)	=	Structure Use & Function Loss (\$)
		X		+		X		=	
		X		+		X		=	
		X		+		X		=	
		X		+		X		=	
		X		+		X		=	
		X		+		X		=	
		X		+		X		=	
		X		+		X		=	
		X		+		X		=	
Total Loss to Structure Use & Function									

Structure Loss	+	Content Loss	+	Function Loss	=	Total Loss for Hazard Event
	+		+		=	

Adapted from FEMA 386-2: *Understanding Your Risks: Identifying Hazards and Estimating Losses*

ESF-5 APPENDIX 6: DISASTER DECLARATION PROCESS



ESF-6: MASS CARE AND HUMAN SERVICES

This ESF establishes a working strategy to provide the delivery of mass care, emergency assistance, housing and human services for Boone County citizens displaced or evacuated from their residences because of an emergency or disaster.

Agencies with identified roles and responsibilities in this annex include, but are not limited to:

The American Red Cross of Missouri-Arkansas
Columbia/Boone County Department of Public Health and Human Services (PHHS)
Boone County Community Services Department
Boone County Office of Emergency Management (BCOEM)
Central Missouri Humane Society (CMHS)
Community Foundation of Central Missouri
Faith-based organizations
Human services providers
The Salvation Army
United Way 2-1-1 of Greater St. Louis

SITUATION AND ASSUMPTIONS

SITUATION

Boone County is subject to disasters that could cause displacement and loss of primary needs for persons and their pets. The number of people affected could range from few in an isolated incident, to many if a disaster strikes a densely populated area. Evacuation may be needed in response to an emergency or potential hazard, thus requiring immediate, and potentially long-term, reception and care operations for both people and their companion animals.

A large portion of the population of Boone County is comprised of college students whose primary residences lie outside of Boone County's borders. This could significantly impact evacuation and sheltering needs and planning.

The Red Cross maintains agreements with agencies and organizations in Boone County and its municipalities to temporarily shelter and feed persons evacuated or otherwise displaced by an emergency or disaster. Lists of potential shelter locations are maintained by the Red Cross, the Columbia/Boone County Department of Health and Human Services, and the Boone County Office of Emergency Management.

There are non-profit and volunteer organizations in and around Boone County that can assist with sheltering of companion animals in times of disaster.

Detailed information on resources and points of contact can be found in the EOC Contact and Resource Guide.

ASSUMPTIONS

Affected persons will respond as directed by local government officials.

A percentage of evacuees will stay with friends or relatives.

All persons or groups who control or own potential shelters will cooperate and make their facilities available.

Affected persons will be resistant to evacuating without their companion animals. Persons seeking shelter may be unaware that many shelters do not accept pets and will report to shelters with their animals.

A major disaster will create problems beyond the normal day-to-day capabilities of Boone County agencies and departments. Government agencies cannot handle the burden of human service needs without the assistance of volunteer, private, public and faith-based community organizations. Local volunteer agencies, church groups and civic organizations may supply food, clothing, household items, provide sheltering and referral assistance to individuals in need of temporary housing, assist with clean up and repair, and respond to other needs. Coordinated planning and response by human service agencies, faith-based organizations and other community organizations will result in efficient, effective and expedient service delivery in a disaster.

Cooperative agreements formed by agencies can result in a better state of readiness to mitigate or avoid the immediate impact of any kind of disaster.

Outside assistance from both private and governmental sources will be available if required and/or requested.

CONCEPT OF OPERATIONS

GENERAL

In accordance with federal mandates, management of local disasters and emergencies will be initiated and conducted using the concepts and principles of the National Incident Management System (NIMS). On-scene management and coordination of responses will utilize the Incident Command System (ICS).

The mass care and human services activities described in this annex are an extension of normal day-to-day activities and deal only with those situations that could completely exhaust all available resources.

ESF-6 will be coordinated by representation from one or all human service agencies involved in the incident. Entities with ESF-6 responsibilities will provide liaisons to the EOC, if activated, to form an ESF-6 coordination group. Liaisons from primary and support agencies may locate to, and operate from, the EOC, or may retain a virtual presence with the EOC. The ESF-6 liaison will coordinate mass care and human services resources, maintain situational awareness, and provide information to the EOC regarding mass care response and recovery efforts.

ESF-6 will prioritize, allocate and task assets in coordination with the other ESFs to support the disaster response and recovery efforts. Priorities will continually be reassessed to develop strategies and address the most critical needs.

Local resources will be used first before outside assistance is requested from mutual aid, the state and/or federal government. The first resources to be identified will be those that are under the control of, or are

readily available to, the County and municipal governments.

The EOC will not interfere with the internal operations of the involved agencies but will monitor the situation and provide support as requested.

Mutual aid resources will remain under the authority of their home agencies but will be mission assigned by ESF-6 in the EOC and utilized on site by the Incident Commander.

RECEPTION AND CARE

Boone County and its municipalities have the joint responsibility to provide for reception and care services for citizens and their companion animals who are displaced due to a large-scale emergency or disaster.

OEM maintains a list of potential shelters sites with information about capacity, capabilities and staffing. OEM will also identify government and community partners who can provide support and services to short and long-term shelters, including those that serve individuals with functional needs and those that accept pets. ESF-6 partners will coordinate plans and procedures to ensure a capability which includes sheltering and feeding operations.

Reception and care operations will be coordinated by ESF-6 from the Emergency Operations Center (EOC) or virtually depending on need and personnel availability. In a limited disaster or emergency, reception and care operations may be controlled from routine office locations or at a site designated at the time.

Support to reception and care operations will be jointly provided by designated municipal and/or county departments, and available private relief organizations. Logistical support will be coordinated through the EOC, if activated. Medical care and public health measures in the shelters will be provided by the ESF-8 health and medical partners.

During emergency or disaster operations, ESF-6 will also:

- Ensure access and functional needs support is addressed
- Provide information regarding additional services for unmet needs
- Coordinate reunification activities
- Identify long term-case management options

ACCESS AND FUNCTIONAL NEEDS

The American Disabilities Act (ADA) of 1990, Fair Housing Act (FHA) of 1968 and civil rights requirements are not waived in a disaster situation. The Stafford Act and Post-Katrina Emergency Management Reform Act (PKEMRA) mandate integration and equal opportunity for people with disabilities in general population shelters. The ADA of 1990, the Rehabilitation Act of 1973, and the FHA of 1968 define the scope of Functional Needs Support Services (FNSS). Among other specifications for people with disabilities, this includes the selection of accessible sites for the location of general population shelters and required physical modifications to ensure program accessibility in existing facilities. FNSS are services that enable individuals with access and functional needs to maintain their independence in a general population shelter. Examples of support services include durable medical equipment (DME), consumable medical supplies (CMS), and personal assistance services (PAS). Individuals requiring FNSS may have

physical, sensory, mental health, and cognitive and/or intellectual disabilities affecting their ability to function independently without assistance. Others who may benefit from FNSS include women in the late stages of pregnancy, seniors, and people whose body mass requires special equipment.

Mass care planning and implementation will take into consideration sheltering and other human services that integrate people with access and functional needs. Potential Red Cross supported or managed shelters are pre-screened for accessibility, or for options to become accessible at the time of utilization. Accessible transportation services for movement of evacuees have also been identified. ESF-6 and ESF-8 partners have identified resources including, but not limited to, mental health and medical care, communications services and case management to meet the needs of a diverse community.

HUMAN EVACUATION AND COMPANION ANIMALS

ESF-6 will coordinate volunteer services for animal rescue, shelter and health care, and track activities of animal shelter and confinement facilities. Animal Control and Central Missouri Humane Society officials will coordinate with Red Cross personnel to assure the safety and care of the animals of evacuees or displaced families.

DONATIONS MANAGEMENT

Monetary donations will be processed and managed by the Heart of MO United Way, while the Salvation Army will be the lead in commodity donation management.

PUBLIC INFORMATION

The news media will be engaged during disaster relief to publicize the need for volunteers and donations, the processes and opportunities for volunteering and donating, and sharing information regarding available human services and commodities for those affected. ESF-6 will coordinate with the Joint Information Center and with human service providers to disseminate pertinent information to the public, as well as to vulnerable and at-risk populations.

ASSIGNMENT OF RESPONSIBILITIES

PRIMARY RESPONSIBILITIES

The agencies with primary responsibility to this plan are tasked with actions to include but not limited to:

- Prioritization, allocation and/or tasking of assets in support of disaster relief and recovery efforts.
- Providing liaison(s) and point of contact for ESF-6 at the EOC.
- Maintaining records of costs for supplies, resources and man-hours used in response to the disaster event.
- Maintaining standard operations guidelines (SOGs) that address mass care responsibilities and needs.
- Maintaining lists of potentially available resources.
- Maintaining current mutual aid agreements, memoranda of understanding, and contractual resources to support disaster human service mass care and needs.

COLUMBIA/BOONE COUNTY DEPARTMENT OF PUBLIC HEALTH AND HUMAN SERVICES (PHHS)

PHHS will provide the Human Services manager, or designated staff, to act as the liaison to the Emergency Operations Center if ESF 6 is activated.

PHHS maintains, and has regular communication with, an extensive network of human service organizations. PHHS will communicate with this provider network to identify information and resources to assist the community in meeting disaster related human service needs. This will include services that are routinely provided in the community.

The network can also be used to identify if any specific populations of the community are experiencing unique unmet needs that resulted from the emergency event. These same organizations can be used as communication conduits to impacted individuals, by providing and receiving information to and from their clients, customers or consumers.

PHHS regularly communicates with overnight shelter providers to have an accurate situational awareness of current community shelter capacity. This awareness aids in the decision-making processes on the need for increasing shelter operations in the community during the response to an emergency event.

PHHS will assist in identifying providers that can support the provision of access and functional need assistance. This includes access to facilities, public information dissemination, sheltering and feeding operations, and ability to access programs being offered to disaster survivors.

PHHS contracts for social services with multiple community-based human service providers. These contracts can be leveraged in meeting disaster related human service needs.

PHHS publishes a resource guide of human services in print and electronic app formats that is provided to the community and can be used to identify and contact human service providers.

THE AMERICAN RED CROSS OF MISSOURI-ARKANSAS

The American Red Cross of Missouri-Arkansas will be a lead agency for mass care and will work in conjunction with numerous other community disaster initiatives. Red Cross provides food, emergency shelter assistance, crisis counseling, welfare inquiries and other services as needed. Shelter types include:

- Red Cross shelters - Red Cross managed, supplied and staffed
- Partner shelters – managed in partnership between Red Cross and partner agency; supplies and staff shared between Red Cross and partner
- Red Cross supported shelters – managed, supplied and staffed by partner agency; Red Cross management materials and systems used; limited Red Cross supplies and staff
- Independent shelters – no Red Cross support requested; will still be asked about occupancy numbers for situational status report

SUPPORT RESPONSIBILITIES

BOONE COUNTY OEM

OEM will activate the EOC if indicated by the extent of the incident to coordinate with the agencies listed in this annex to identify available resources to ensure all incident requirements are met. OEM will

facilitate requests for mutual aid and for state and federal resources and will make provisions for logistical support for incident assets.

OEM will collect and disseminate information about, and in support of, the incident; OEM will gather situational information regarding hazards, resources, status of infrastructure, evacuation routes, unmet needs, etc., and will coordinate with the PIO(s)/JIC to disseminate pertinent information to the public.

The EOC will be the focal point for triage and prioritization decisions regarding the restoration of critical services and infrastructure and providing response and recovery support to residents and businesses.

OEM will also be responsible for gathering cost information from resource providers to prepare for a potential declaration of disaster.

BOONE COUNTY IT/GIS

Boone County IT and GIS will provide mapping and technological capabilities in support of the EOC and the incident.

HEART OF MO UNITED WAY

Heart of Missouri United Way can provide emergency and disaster monetary donations management.

SALVATION ARMY

The Salvation Army can assist with mass feeding, emergency sheltering, spiritual counseling, disaster case management, short-term financial assistance, disaster communications through its SATERN (Salvation Army Team Emergency Radio Network) program and other emergency mass care needs.

ANIMAL CARE AGENCIES

The Animal Control Division (ACD) of the Columbia/Boone County Dept. of Public Health and the Central MO Humane Society will partner with other animal care organizations to provide rescue, care and shelter for affected household pets and service animals. Other potential partners may include the Humane Society of Missouri, the University of Missouri College of Veterinary Medicine, the Missouri Veterinary Medical Association and other volunteer organizations.

HUMAN SERVICES COMMUNITY PARTNERS

Human service providers may be utilized to meet basic human needs immediately following a disaster and also play a large role in recovery by providing individuals, families and the community with a wide range of assistance including employment, food, housing, shelter, clothing, legal and financial aid.

BOONE COUNTY COMMUNITY SERVICES DEPARTMENT

Boone County Community Services will provide a liaison to the EOC in conjunction with the PHHS Human Services Manager to support coordination of human services activities.

DIRECTION AND CONTROL

In accordance with federal mandates, Boone County government, response agencies, and the municipalities within the county have adopted the National Incident Management System (NIMS) and the Incident Command System (ICS) as the standard for incident response and management.

Mass care activities and missions will be coordinated by the ESF-6 representative or coordination group, with the supporting and assisting agencies retaining administrative direction and control over their resources. Coordination will be established with the EOC (if activated) and/or IC to prioritize and develop strategies and missions for response and recovery. Priorities will continually be reassessed to develop strategies and address the most critical needs.

Mutual aid resources will be managed by the EOC and local incident commanders but will retain the administrative oversight of their home agencies.

CONTINUITY AND SUCCESSION

Lines of succession and continuity of operations plans are maintained at the agency or department level.

Records vital to the continuity of the ESF functions are duplicated and stored at alternate locations.

ADMINISTRATION AND LOGISTICS

Specific operating procedures and protocols are maintained by the participating organizations.

Resources and points of contact are maintained in the EOP Contact and Resource Guide

Mutual aid agreements, memoranda of understanding and contractual resource lists regarding transportation operations are maintained within individual agencies.

Procedures for use of forms, compiling information, and providing data to the EOC are in the EOC SOG.

The EOC will provide support and resources at the request of the incident commander.

Supply requisitions/resource requests will be made through normal channels to the extent possible but will be made through the EOC when necessary and coordinated by ESF-7 Logistics. Unusual expenditures will be directed to the Emergency Management Director and coordinated with the jurisdictional purchasing agents as per documented purchasing procedures

Each agency will track costs and personnel hours associated with the disaster to provide to OEM for disaster declaration activities. Accurate records of hours worked, and supplies used must be reported to the EOC for use in determining the total cost of the disaster. All actions taken must be recorded as they are essential for future planning and mitigation, response and recovery, and training and exercise.

Communications for this function will be provided as outlined in the ESF-2 annex of this plan.

Shelter management training is provided by the Red Cross.

Reception and care personnel will compile and maintain records of shelter information including locations and points of contact, numbers of people sheltered, numbers of meals served, and shelter supply needs and orders.

Public information releases should be coordinated by PIOs and ESF-6 service providers and coordinators.

Shelter registration forms (Appendix 3) will be utilized during intake of evacuees.

APPENDICES

Appendix 1: Reception and Care Facilities and Resources

Appendix 2: Social Vulnerability Map

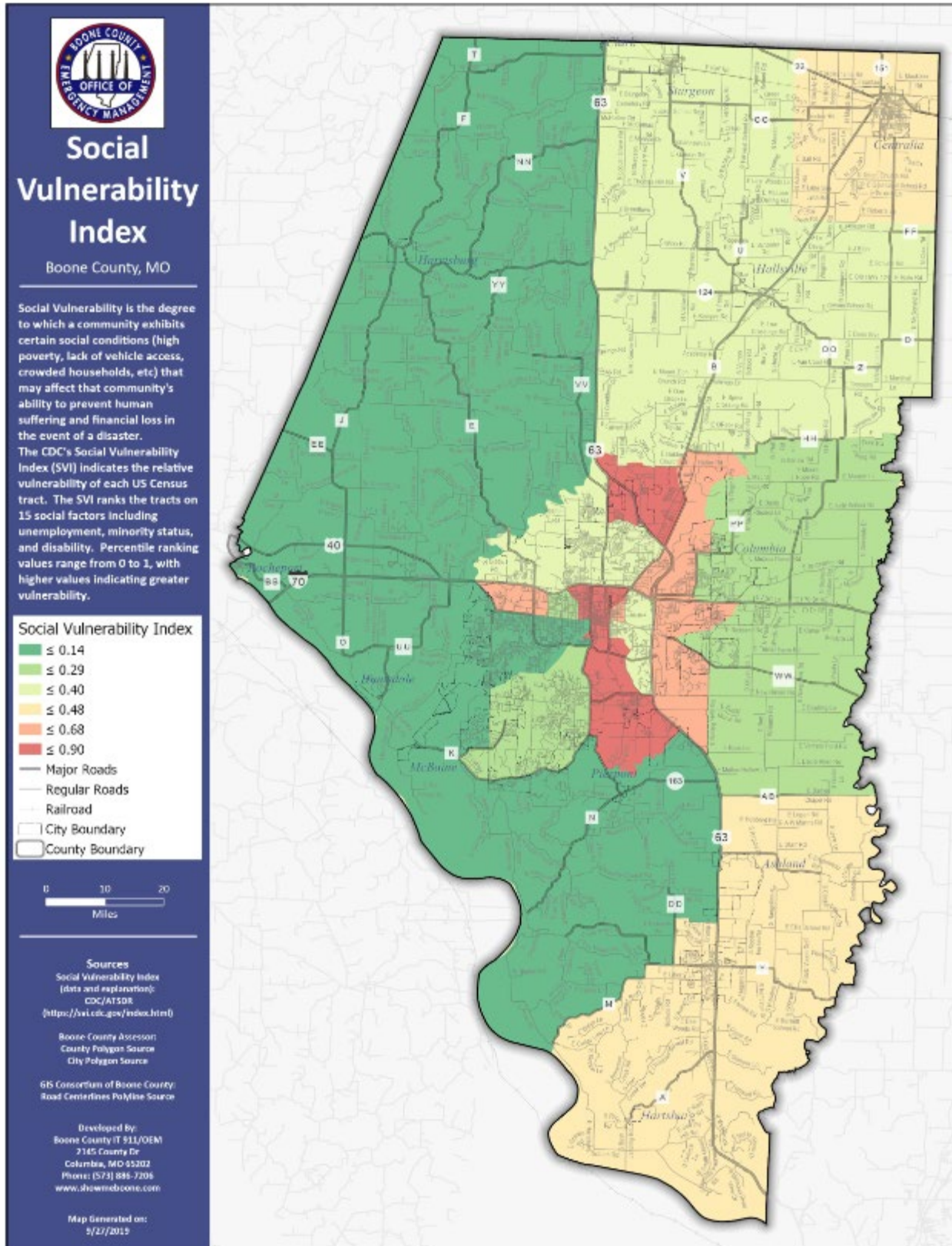
Appendix 3: Sample Shelter Registration Form

Appendix 4: MOU with 2-1-1

ESF-6 APPENDIX 1: RECEPTION AND CARE FACILITIES AND RESOURCES

****Facilities and points of contact are maintained in the EOP Contact and Resource Guide***

ESF 6 APPENDIX 2: SOCIAL VULNERABILITY MAP



ESF-6 APPENDIX 3: SAMPLE SHELTER REGISTRATION FORM

FAMILY NAME _____					
HOME ADDRESS _____					
FIRST NAMES	AGE	GENDER	OCCUPATION	OTHER SKILLS	ACCESS AND FUNCTIONAL NEEDS
1. Head of family					
2. Others					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
ASSIGNED SHELTER _____					

ESF-6 APPENDIX 4: MOU BETWEEN BOONE CO OEM AND UNITED WAY 2-1-1

MEMORANDUM OF UNDERSTANDING
Between
Boone County,
Office of Emergency Management
And
United Way 2-1-1 Missouri
September 18, 2020

Purpose:

This purpose of this memorandum of understanding between the Boone County, Office of Emergency Management, hereinafter known as “OEM” and United Way 2-1-1 Missouri, hereinafter known as “2-1-1” is to facilitate an improved level of cooperation in carrying out their assigned responsibilities for planning, preparedness, and response in the event of natural or man-made disasters. Through this agreement both parties agree to strengthen their partnership in the best interest of the State of Missouri. Both parties agree to renew their commitment to a positive and productive relationship.

Authorities:

The OEM is the organization designated by Boone County to serve as the County authority for emergency management.

2-1-1 is an abbreviated dialing code connecting callers to health and human service information and referral. Two organizations, the United Way of Greater Kansas City and the United Way of Greater St. Louis have been granted authority by the Missouri Public Service Commission to operate 2-1-1 in Missouri. Both entities are incorporated in the State of Missouri as “Nonprofit Corporations.” (RSMo 355) Between the two entities, 2-1-1 service is available in all Missouri counties.

Missions:

The OEM’s mission is to protect the lives and property of all citizens of Boone County when major disasters threaten public safety within the county. The OEM responds to two types of disasters - natural and manmade. Natural disasters are major snow and/or ice storms, floods, tornadoes and/or severe weather, as well as the threat of a serious earthquake along Missouri’s New Madrid Fault. Manmade disasters, also known as technological emergencies, may include hazardous material incidents, nuclear power plant accidents and other radiological hazards. The OEM is also responsible for developing the Basic Emergency Operations Plan which coordinates the actions of Boone

ESF-7: RESOURCE AND SUPPLY

ESF-7 establishes the coordination for acquisition, allocation and management of resources, including donations and volunteers, during an emergency or disaster situation within Boone County.

Agencies with identified roles and responsibilities in this annex include, but are not limited to:

Boone County Office of Emergency Management (BCOEM)

Boone County Auditor

Boone County Purchasing

Boone County Road and Bridge

Boone County Treasurer

Financial agents for all municipalities located within Boone County

Heart of Missouri United Way

The Salvation Army

Law enforcement agencies located within the county and its municipalities

Fire service agencies located within the county and its municipalities

Emergency medical service agencies located within the county and its municipalities

Public works agencies located within the county and its municipalities

Private and non-governmental (NGO) partners located within the county and its municipalities

SITUATION AND ASSUMPTIONS

SITUATION

Emergency purchasing procedures are in place for Boone County and the municipalities located within the county. Emergency procurement procedures can be found in Appendices 4 and 5 of this annex.

Resource lists are maintained in separate documents by Boone County departments and disaster response partner agencies.

Detailed information on resources and points of contact can be found in the EOC Contact and Resource Guide.

ASSUMPTIONS

There will likely be more resources needed to respond effectively to a disaster than will be available within the county.

During a disaster, individuals or businesses with private resources may be asked to cooperate with county and city officials to meet resource needs.

Resources are available from the surrounding communities (i.e., through mutual aid agreements), other areas of the state, as well as state and federal agencies.

Reimbursement or direct funding for use of resources may be available from the state and/or federal government.

During a disaster, normal supply requisition procedures may be suspended.

Resources will include monetary and commodity donations, and volunteers. An experienced and effective management system will be needed for processing and utilizing those resources.

ADDITIONS:

WHEN RESOURCE REQUESTS ARE NEEDED

SHARED RESOURCES AVAILABLE FROM OEM

WHO CAN ORDER RESOURCES THROUGH OEM – GOVT /TAXBASED AGENCIES ONLY OR NOT

CONCEPT OF OPERATIONS

GENERAL

In accordance with federal mandates, management of local disasters and emergencies will be initiated and conducted using the concepts and principles of the National Incident Management System (NIMS). On-scene management and coordination of responses will utilize the Incident Command System (ICS).

The resource management activities described in this annex are an extension of normal day-to-day activities and deal only with those situations that could completely exhaust all available resources.

ESF-7 will be coordinated by the Office of Emergency Management in conjunction with financial administration of the authority having jurisdiction, and resource providers inherent to the support of the event. Entities with ESF-7 responsibilities will provide liaisons to the EOC, if activated, to form an ESF-7 coordination group. Liaisons from primary and support agencies may locate to, and operate from, the EOC, or may retain a virtual presence with the EOC. The ESF-7 liaison(s) will coordinate resource management, maintain situational awareness, and provide information to the EOC regarding resource management response and recovery efforts.

ESF-7 will prioritize, allocate and task assets in coordination with the other ESFs to support the disaster response and recovery efforts. Priorities will continually be reassessed to develop strategies and address the most critical needs.

Local resources will be used first before outside assistance is requested from mutual aid, the state and/or federal government. The first resources to be identified will be those that are under the control of, or are readily available to, the County and municipal governments.

The EOC will not interfere with the internal operations of the involved agencies but will monitor the situation and provide support as requested.

Mutual aid resources will remain under the authority of their home agencies but will be mission assigned by the EOC and utilized on site by the Incident Commander.

Normal supply requisition procedures will be followed to purchase supplies. These procedures may be bypassed with the approval of the chief elected official and in accordance with local ordinances and state statutes.

Field operation facilities (i.e., staging areas, mobilization centers, etc.) will be established as necessary to receive, assemble and distribute resources and supplies. (See Appendix 2).

Following a large-scale disaster, the outpouring of donations can overwhelm the ability of local organizations to respond effectively. Local government officials in conjunction with voluntary organizations will establish procedures to coordinate and control donated goods and offers of volunteer assistance.

Various departments within county and/or city government such as public works, law enforcement, etc., can support the ESF-7 function with equipment, manpower, fuel, etc. Mutual aid agreements with surrounding jurisdictions can provide additional resources. Other outside resources from the private sector, business and industry, etc., may also provide support.

ASSIGNMENT OF RESPONSIBILITIES

The agencies with responsibilities to this plan are tasked with the following actions:

- Providing liaison(s) and point of contact to the EOC.
- Maintaining standard operations guidelines (SOGs) that address logistics responsibilities and needs.
- Identifying potential resource needs for all types of emergency situations, and locating the required resources within the community or through other avenues.
- Maintaining lists of potentially available resources.
- Establishing and maintaining mutual aid agreements, memoranda of understanding and contracts with potential resource suppliers, including public and private sector organizations, neighboring jurisdictions, etc.
- Prioritization, allocation and/or tasking of resources in coordination with all other ESFs in support of disaster relief and recovery efforts.
- Facilitating processing and management of financial and commodity donations
- Identifying staging areas to store and/or distribute resources and supplies (see Appendix 2), and coordinating with the PIO/JIC to publicize location information.
- Maintaining records of costs for supplies, resources and man-hours used in response to the disaster event.
- Maintaining records of services rendered, resources utilized, unused resources, etc. for the duration of the disaster and recovery period.

BOONE COUNTY OEM

In a large-scale emergency or disaster, Boone County OEM represents ESF-7 and coordinates resource ordering, allocation and tracking.

The ESF-7 liaison or coordination group will coordinate the procurement, storage and distribution of the following supply areas, as well as managing monetary and commodity donations and volunteer resources:

- Emergency response resources and teams

- Sustenance items (water, food, clothing, sanitary supplies, bedding, shelter supplies, etc.)
- Fuel and energy
- Transportation
- Equipment and equipment support
- Manpower

HEART OF MO UNITED WAY

Heart of MO United Way maintains the capabilities for managing financial donations.

THE SALVATION ARMY

The Salvation Army maintains the capabilities for managing commodity donations.

OFFICE OF NEIGHBORHOOD SERVICES

Office of Neighborhood Services will organize management of volunteers in conjunction with agencies providing the volunteer personnel.

MEDIA

The news media will be engaged during disaster relief to publicize the need for volunteers and donations, the processes and opportunities for volunteering and donating,

DIRECTION AND CONTROL

In accordance with federal mandates, Boone County government, response agencies, and the municipalities within the county have adopted the National Incident Management System (NIMS) and the Incident Command System (ICS) as the standard for incident response and management.

Resource management activities will be coordinated by the ESF-7 representative or coordination group, with the supporting and assisting agencies retaining administrative direction and control over their resources. Coordination will be established with the EOC (if activated) and/or IC to prioritize and develop strategies and missions for resource acquisition and management. Priorities will continually be reassessed to develop strategies and address the most critical needs.

Mutual aid resources will be managed by the EOC and local incident commanders, but will retain the administrative oversight of their home agencies.

CONTINUITY AND SUCCESSION

Lines of succession and continuity of operations plans are maintained at the agency or department level.

Records vital to the continuity of the ESF functions are duplicated and stored at alternate locations.

ADMINISTRATION AND LOGISTICS

Specific operating procedures and protocols are maintained by the participating organizations.

Facilities and points of contact are maintained in the EOP Contact and Resource Guide

Mutual aid agreements, memoranda of understanding and contractual resource lists regarding
v. 012722

transportation operations are maintained within individual agencies.

Procedures for use of forms, compiling information, and providing data to the EOC are located in the EOC SOG.

The EOC will provide support and resources at the request of the incident commander.

Supply requisitions/resource requests will be made through normal channels as much as possible but will be made through the EOC when necessary, coordinated by ESF-7. Unusual expenditures will be directed to the Emergency Management Director and coordinated with the jurisdictional purchasing agents as per documented purchasing procedures

Each agency will track costs and personnel hours associated with the disaster to provide to OEM for disaster declaration activities. Accurate records of hours worked, and supplies used must be reported to the EOC for use in determining the total cost of the disaster. All actions taken must be recorded as they are essential for future planning and mitigation, response and recovery, and training and exercise.

APPENDICES

Appendix 1: Boone County Resource Lists

Appendix 2: Staging Areas

Appendix 3: Resources and Supply Procurement Procedures for Emergency Situations, City of Columbia

Attachment A - Purchase Requisition Form

Attachment B - Purchase Form

Appendix 4: Resources and Supply Procurement Procedures for Emergency Situations, Boone County

Attachment A - Request for Emergency Procurement Approval

Attachment B - Purchasing Requisition Form

ESF-7 APPENDIX 1: BOONE COUNTY RESOURCE LISTS

****See Resource Directory for listing of available resources and contact information***

ESF-7 APPENDIX 2: STAGING AREAS

Staging areas are locations which may be used as a gathering point for evacuees to access transportation for movement to a safe location, or as pick-up and drop-off points for resources and supplies.

The following facilities represent centrally-located, easily accessible sites that may be utilized as staging areas. Which sites to be used would be determined by the situation and prior agreement between the facility and local government.

Boone County

Boone County Fairgrounds
Municipal community centers

Ashland Area

Southern Boone County Fire Station #17

Ashland Optimist Bldg.
511 Optimist Drive, Ashland, Mo. 65010

Southern Boone County Schools
Crump Lane, Ashland, Mo. 65010

Southern Boone County Senior Center
406 Douglas Drive, Ashland, Mo. 65010

Ashland Baptist Church
203 E. Broadway, Ashland, Mo 65010

Hartsburg Area

American Legion Building
35 S. 2nd Street, Hartsburg, Mo. 65039

Hartsburg Baptist Church
175 West Main Street, Hartsburg, Mo. 65039.

Peace United Church of Christ
121 N. 1st Street, Hartsburg, Mo. 65039

Southern Boone County

Mt. Pleasant Baptist Church
Highway 63, Hartsburg, Mo. 65039

Eagle Knoll Golf Club
5757 E. Eagle Knoll Drive, Hartsburg, Mo. 65039

Wilton Area

Goshen Baptist Church
500 Cedar Tree Lane, Hartsburg, Mo. 65039

Sapp/Gasky Area

Nashville Baptist Church
Route N, Nashville Church Road, Ashland, Mo.
65010

ESF-7 APPENDIX 3: MEMORANDUM OF AGREEMENT TRANSPORTATION SERVICES FOR EVACUATION OF THE PUBLIC INCLUDING PEOPLE WITH ACCESS AND FUNCTIONAL NEEDS

Between: Boone County Office of Emergency Management and XXX transportation capability

1. Purpose

The purpose of this Memorandum of Agreement (MOA) is to establish a mechanism whereby XXX agrees to support Boone County and work together as cooperating parties during emergency evacuations, including aiding in the safe transport of children, the elderly and people with access and functional needs.

2. Description

The County and XXX enter into this MOA in good faith for the provision of transportation services to support evacuation orders issued as a result of natural, technological or human-caused disaster. The following is representative of, but not limited to, the principle tasks the XXX transportation assets might be activated to accomplish:

- Transport evacuees from at-risk areas to reception centers, shelters or other safe havens

- Modify existing transportation services to better serve the transportation needs of evacuees

- Modify existing transportation policies (e.g. fare policies, pets on vehicles, securement of mobility devices) to better accommodate the needs of evacuees (including people with access and functional needs)

- Return evacuees from safe havens to their residences (re-entry).

3. Deployment Activity

This agreement may be activated only by notification by the designated Incident Commander (IC) or his/her designee. Deployment activation, pursuant to this MOA, may occur at any time, day or night, including weekends and/or holidays; including 24/7 continuous service.

Upon acceptance of deployment, XXX will have equipment enroute to the designated location within XXX minutes from the time it receives the official deployment notification from the IC or his/her designee. For reimbursement purposes, mission tasking will begin when the transportation assets' personnel check in at the incident Staging Area and will conclude when the deployment authorization has been met or the IC and/or his designee issues demobilization orders for the resource(s).

4. Terms

This agreement shall be in full force and effect beginning the date of execution and ending [date].

This agreement will be renewed automatically unless terminated pursuant to the terms hereof.

XXX personnel who respond must be in good standing with the company, and up to date on all requisite licensing and permitting

Deployed personnel must abide by all federal, state and local laws

All deployed personnel will be properly identified by uniform and employer identification card with photo.

XXX will only deploy staff upon receipt and under the terms of the official deployment notification(s) as described in Section 3.

XXX must provide detailed records certifying miles and hours of service provided.

5. Cost Reimbursement

In the event that this Agreement is activated, and XXX assets are deployed, XXX may invoice the County based on the total allocated cost per mile and cost per hour.

6. Method for reimbursement

The County will provide a method for submitting the required information for invoicing as part of the initial notification.

XXX must submit accurate paperwork, documentation, receipts and invoices to the County within 30 days after demobilization.

If the County determines that XXX has met all requirements for reimbursement, XXX will be reimbursed within 30 days of receiving a properly executed reimbursement request.

7. Resource estimates

To properly plan for transportation needs for disaster response, XXX estimates the following resources could be made available for response:

Detail vehicles that may be made available

Detail staff that may be made available

8. Contract Claims

This Agreement shall be governed by and constructed in accordance with the laws of the state of Missouri as interpreted by Missouri courts. However, the parties may attempt to resolve any dispute arising under this Agreement by any appropriate means of dispute resolution.

9. Hold Harmless/Indemnification

XXX will hold harmless and indemnify the County against any and all claims for damages, including but not limited to all costs of defense including attorneys' fees, all personal injury or wrongful death claims, all worker's compensation claims, or other on the job injury claims arising in any way whatsoever from transportation of the public, including individuals with access and functional needs; during the disaster evacuation or reentry to their residence(s).

Acceptance Agreement

Any agency offering to enter into this MOA shall fully complete this MOA with information requested herein, sign two originals of a fully completed MOA, and sent both via regular US mail.

In addition, a copy of the MOA, signed and fully completed by XXX, shall be faxed or sent to the County.

As noted, by the signature (below) of XXX or its authorized agent, XXX agrees to accept the terms and conditions as set forth in this Agreement, agrees to abide by the requirements for reimbursement and waives the right to file a claim to be reimbursed for any amount above the payment schedule amount, as outlined herein. All amendments of this MOA must be in writing and agreed to by XXX and Boone County.

Name of Agency: _____ **Address and contact information:**

Signature of Company Representative or Authorized Agent Printed Name and Title Date

Boone County Commission **Address and contact information:**

Signature of Representative or Authorized Agent Printed Name and Title Date

ESF-7 APPENDIX 4: RESOURCES & SUPPLY PROCUREMENT PROCEDURES FOR EMERGENCY SITUATIONS, CITY OF COLUMBIA

The City of Columbia's Purchasing Ordinance, Section 2-460 (c)(1) shown below describes the circumstances that would necessitate enactment of expedited purchasing practices.

"Emergency Purchases: Those purchases necessitated by nonrecurring emergency situations posing a substantial danger to the health, safety and welfare of the citizens or of a risk of substantial financial loss to the city unless the required supplies, materials, equipment or services are obtained as expeditiously as possible."

Section 2-460 goes on to state that: "The department head requesting an emergency purchase under subparagraph (1) shall certify that the purchase is an emergency within the meaning of subparagraph (1) by a memorandum which sets forth the nature of the emergency." In the case of a major disaster affecting City operations caused by weather, terrorism, war, accidents, explosions, Acts of God, etc. the City Manager could enact the emergency purchasing section of the Ordinance to cover whatever goods or services may be necessary to stabilize the City's operations.

This same section of the Purchasing Order goes on to state that:

"It shall be the policy of the city to encourage competitive business practices through public bidding or requests for proposals wherever possible and feasible. The city manager is encouraged to pursue informal bidding and requests for proposals in the above categories of exceptions whenever time and business conditions permit."

Section 2-460-(d).

Depending on the severity and nature of the emergency, it should be clear that obtaining competitive bids or proposals may not always be feasible. However, documentation regarding quoted pricing and availability should be kept with the requisition in order to assure that a reasonable price is being paid for the goods and/or services obtained.

In the case of a disaster that renders the City's computer network unusable, paper requisition forms and purchase order forms (see attachments A and B to this Appendix) should be used by the emergency team to facilitate the orderly requisition, order, receipt and payment of goods and service needed to deal with the emergency situation.

The Purchasing Division will maintain a directory of government providers and suppliers from Columbia and surrounding communities that can assist with providing equipment, goods and services that might be needed to assist with the emergency.

ESF-7 APPENDIX 4: ATTACHMENT A - PURCHASE REQUISITION FORM



CITY OF COLUMBIA
FINANCE / PURCHASING DIVISION
2 GUITAR STREET
P.O. BOX N COLUMBIA, MO 65205

MAIL INVOICE TO:
FINANCE/ACCOUNTS PAYABLE DIVISION
P.O. BOX 7236
COLUMBIA, MO 65205

PURCHASE ORDER NUMBER

IMPORTANT: THE ABOVE NUMBER MUST APPEAR ON ALL CORRESPONDENCE, INVOICES, PACKAGES, EACH P.O. MUST BE INVOICED SEPARATELY.

PAGE NO.:

VENDOR PHONE

VENDOR NO.

TO:

SHIP TO

DATE	DELIVERY DATE	SHIP VIA	TERMS	F.O.B.	BUYER	REQUISITION NO.'S
ITEM NO.	ACCOUNT NO.	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	AMOUNT
						NOT TO EXCEED 

READ CAREFULLY THE PROVISIONS AS SET FORTH ON THE REVERSE SIDE OF THIS DOCUMENT

FORM NO. 121 (3/95)

CONTROL NO. 35521

City of Columbia ORIGINAL

Bob J. Hash, CPPQ, City Purchasing Agent

Form No. 112 (Rev. 2/86)

ESF-7 APPENDIX 5: RESOURCES AND SUPPLY PROCUREMENT PROCEDURES FOR EMERGENCY SITUATIONS, BOONE COUNTY

3-106 Emergency Procurement

Notwithstanding any other provisions of this Policy, and by direction of the liaison Commissioner to any Department, and in the absence of an assigned liaison Commissioner, it shall be the Presiding Commissioner, the purchasing agent may make or authorize others to make emergency procurement of supplies, services, or construction items where there exists a threat to public health, welfare, or safety; provided that such emergency procurements shall be made with such competition as is practical under the circumstances. A written determination of the basis for the emergency and for the selection of the particular contractor shall be included in the contract file. As soon as practical, a record of each emergency procurement shall be made and shall set forth the contractor's name, the amount and type of the contract, a listing of the item(s) procured under the contract, and the identification number of the contract file.

ESF-7 APPENDIX 5: ATTACHMENT A - REQUEST FOR EMERGENCY PROCUREMENT APPROVAL

Boone County Purchasing

Melinda Bobbitt, CPPB
Director



601 E. Walnut, 2nd Flr
Columbia, MO 65201
Phone: (573) 886-4391
Fax: (573) 886-4402

Boone County Emergency Procurement Policy: Notwithstanding any other provisions of this Policy, and by direction of the liaison Commissioner to any Department, and in the absence of an assigned liaison Commissioner, it shall be the Presiding Commissioner, the purchasing agent may make or authorize others to make emergency procurements of supplies, services, or construction items when there exists a threat to public health, welfare, or safety; provided that such emergency procurements shall be made with such competition as is practicable under the circumstances. A written determination of the basis for the emergency and for the selection of the particular contractor shall be included in the contract file. As soon as practicable, a record of each emergency procurement shall be made and shall set forth the contractor's name, the amount and type of the contract, a listing of the item(s) procured under the contract, and the identification number of the contract file.

REQUEST FOR EMERGENCY PROCUREMENT

Originating Office, Dept. # & Account #	_____
Person Requesting	_____
Date Requested	_____
Phone Number	_____

UPON COMPLETION OF THIS FORM, PLEASE SUBMIT TO THE PURCHASING DEPARTMENT.

PURCHASING DEPARTMENT APPROVAL: _____

Signature

Date

EMERGENCY PROCUREMENT NUMBER: _____

(Assigned by Purchasing)

LIASON COMMISSIONER APPROVAL: _____

Signature

Date

Expiration Date: _____ 20__ through _____ 20__ One Time Purchase (check)

(Note: Attach list for multiple vendors)

Vendor(s) Name

Vendor(s) Address

Vendor(s) Phone and
Fax

Product Description

Estimated Cost

\$

The following is a list of questions that must be answered when making emergency procurement requests. This is a formal document for submission to the Liaison Commissioner for the requesting department.

- A. Please describe the reason for the request of emergency procurement with respect to the threat to public health, welfare, or safety.
- B. Describe anticipated consequences of not procuring immediately:
- C. Describe and attach any quotes received:
- D. Is this a one-time purchase? _____ Yes _____ No
 - a. If not, detail the anticipated future purchases with anticipated acquisition dates:

DATE _____

Bid Documentation
(Check One)

Vendor Name:	_____	Approved Emergency or Sole Source:	_____
Address:	_____	Written Bids(attached):	_____
		Bid or Comm Ord Number:	_____
City, State, Zip:	_____	Not Required:	_____
Bill To Dept. No.	_____		_____
Ship To Dept. No.	_____		

[illegible]

I certify that the goods, services or charges above specified are necessary for the use of this department, and are solely for the benefit of the county.

Requesting Official

Auditor Approval

ESF-8: HEALTH AND MEDICAL

This annex was developed to establish an organization and procedures to protect the health and safety of Boone County citizens should a health emergency, be it natural or deliberate, affect the community.

Agencies with identified roles and responsibilities in this annex include, but are not limited to:

Columbia/Boone County Department of Public Health and Human Services (PHHS)

Boone Hospital Center and BHC Ambulance Service (BHC EMS)

University of Missouri Healthcare and Prehospital Services (MUHC EMS)

Boone County Fire Protection District (BCFPD)

Boone County Joint Communications (BCJC)

Boone County Medical Examiner (ME)

Burrell Behavioral Health

Centralia Fire Department (CEFD)

Columbia Fire Department (CFD)

Columbia Regional Airport Public Safety (COU)

Harry S. Truman Memorial Veterans Hospital

Howard A. Rusk Rehabilitation Center

Landmark Hospital

Missouri Department of Health and Senior Services (MODHSS)

Missouri Department of Mental Health (DMH)

Missouri Disaster Medical Assistance Team (MO DMAT 1)

Missouri Mortuary Operations Response Team (MO DMORT 1)

National Disaster Medical Assistance Teams (DMAT)

National Disaster Mortuary Operational Response Teams (DMORT)

Central Region of the MO Non-urban Healthcare Coalition (HCC)

Southern Boone Fire Protection District (SBCFPD)

Med-Trans Helicopter Service

SITUATION AND ASSUMPTIONS

SITUATION

Comprehensive health and medical services in Boone County and the surrounding area are provided by multiple hospitals located within the city limits of Columbia. University of Missouri Healthcare and Boone Hospital Center are the largest organizations. In addition, the Harry S Truman Memorial Veterans Hospital, Landmark Hospital (long term acute care), and Howard A. Rusk Rehabilitation Center also provide services. All facilities maintain disaster plans in accordance with federal, state and local laws, regulations and guidelines.

Mental health services can be obtained from the University of Missouri Psychiatric Center or local counseling facilities. The Missouri Department of Mental Health can also facilitate crisis counseling through an administrative agent for emergency workers and disaster victims. The administrative agent for Boone County is Burrell Behavioral Health.

Prehospital healthcare service in Boone County is provided by MUHC EMS and BHC EMS. Air ambulance service by helicopter is provided by Med-Trans.

Helicopter Service. All fire service agencies respond to calls for service in conjunction with the ambulance services and provide pre-hospital first response and EMT level care.

Hospitals and EMS services participate in Statewide Mutual Aid.

The Columbia/Boone County Department of Public Health and Human Services (PHHS) in Columbia provides public health and social services for residents of Boone County. This includes essential public health services such as the control and investigation of communicable diseases, environmental sanitation, food and water safety, animal control, social services and other critical issues. PHHS also has a significant role in public health emergency response which includes disease surveillance, investigation, and control measures such as mass prophylaxis, isolation and quarantine. PHHS has developed a Local Public Health Emergency Plan (LPHEP) to guide public health emergency operations for the county during a disaster.

There is one Federally Qualified Health Center (FQHC) - the Family Health Center - which provides primary care to the uninsured and underinsured.

There are multiple urgent care facilities within Boone County that may be able to be utilized as alternate care sites in a large emergency or disaster.

Further information on facilities and points of contact can be found in the EOC Contact and Resource Guide.

ASSUMPTIONS

A major disaster or health emergency could create medical problems beyond the normal day-to-day capabilities of the medical system, including mass casualties and/or mass fatalities.

A major disaster or health emergency could generate many “worried well,” which would further tax the medical system.

Responder and citizen critical incident stress could result from a major disaster or health emergency, requiring mental health resources.

Outside assistance is available and will respond when requested.

CONCEPT OF OPERATIONS

GENERAL

In accordance with federal mandates, management of local disasters and emergencies will be initiated and conducted using the concepts and principles of the National Incident Management System (NIMS). On-scene management and coordination of responses will utilize the Incident Command System (ICS).

The health and medical activities described in this annex are an extension of normal day-to-day activities and deal only with those situations that could completely exhaust all available resources.

ESF-8 will be coordinated by representation from one or all health and medical providers involved in the incident. Entities with ESF-8 responsibilities will provide liaisons to the EOC, if activated, to form an ESF-8 coordination group. Liaisons may locate to, and operate from, the EOC, or may retain a virtual presence

with the EOC. The ESF-8 liaison(s) will coordinate health and medical resource management, maintain situational awareness, and provide information to the EOC regarding response and recovery efforts.

ESF-8 will prioritize, allocate and task assets in coordination with the other ESFs to support the disaster response and recovery efforts. Priorities will continually be reassessed to develop strategies and address the most critical needs.

Local resources will be used first before outside assistance is requested from mutual aid, the state and/or federal government. The first resources to be identified will be those that are under the control of, or are readily available to, the County and municipal governments.

The EOC will not interfere with the internal operations of involved agencies but will monitor the situation and provide support as requested.

Mutual aid resources will remain under the authority of their home agencies but will be mission assigned by ESF-8 in the EOC and utilized on site by the Incident Commander.

ESF-8 is also responsible for the following additional tasks and missions associated with a disaster:

- Coordinating health and medical activities with local, state and federal resources assigned to the incident.
- Supporting triage operations.
- Identifying and coordinating procurement of necessary PPE and equipment required by the incident.
- Identifying decontamination resources for victims, response personnel and equipment.
- Maintaining and protecting health and medical records.
- Negotiating, coordinating and preparation of mutual aid agreements.
- Supporting cleanup and recovery operations.
- Identification of facilities that could be utilized as emergency treatment centers.
- Obtaining supplies to augment expanded medical needs.
- Maintaining critical communications and information sharing.

During a health emergency or disaster, routine duties of the health care partners and stakeholders may be suspended or modified.

COLUMBIA/BOONE COUNTY PUBLIC HEALTH AND HUMAN SERVICES AND HOSPITALS

PHHS and hospitals in Boone County utilize EMResource and eICS for interagency health care communications and response coordination. EMResource and eICS are web-based applications with licensing maintained by the Missouri Hospital Association.

EMResource is used to monitor and coordinate bed availability and hospital diversion status between health care organizations, emergency medical services and dispatch centers.

The eICS (electronic incident command system) is an organizational tool to assist hospitals with management of emergency incidents within their individual facilities, or in a regional or statewide response.

The Missouri Health Alert Network (MO-HNS) is a web-based platform for PHHS to disseminate information to hospitals, healthcare providers, pharmacies and other community medical partners via text messages, voice calls, fax and email.

State or federal health and medical assistance must be requested through the EOC. This would include the CDC's Strategic National Stockpile (SNS), the Missouri Disaster Medical Assistance Team (MO DMAT 1), the Missouri Mortuary Operations Response Team (MO DMORT 1), the National Disaster Medical System Disaster Mortuary Operational Response Teams (DMORT) and Disaster Medical Assistance Teams (DMAT). State mental health resources for disaster survivors and responders may also be requested through the EOC. Other requests should be coordinated with the EOC to support situational awareness and the common operating picture.

An internal ICS structure may be established at the Health Department and/or within the hospital facilities to conduct emergency operations until – or in conjunction with - an EOC activation. A designee from each IC will serve as liaison to the EOC.

In the event of a terrorism incident, the PHHS will coordinate the public health response with the criminal investigations of local, state and federal law enforcement agencies.

Key elements of this plan and local procedures will be exercised at least annually.

MASS CASUALTY OPERATIONS

The pre-hospital response agencies utilize unified protocols in response to mass casualty operations. A standardized triage system based on Priority Dispatch elements and START Triage are utilized throughout the Boone County medical response community.

A mass casualty incident (MCI) classification can be initiated by either fire, EMS or law enforcement units. The following are the dispatch codes for MCIs in Boone County:

MCI1 = Any incident involving 5-10 patients/victims

MCI2 = Any incident involving 11-20 patients/victims

MCI3 = Any incident involving 21+ patients/victims

Notification will go out to ambulance services in surrounding counties for any of the MCI levels. Notifications will be done by Boone County Joint Communications (BCJC), and may be for standby only, or for an actual mutual aid response as required by the situation.

MCI response plan rubric can be found in Appendix 3.

MASS FATALITY OPERATIONS

Mass fatality coordination and response will be managed per Appendix 4 – the Boone County Mass Fatality Response Plan.

ALTERED PROTOCOLS AND STANDARDS OF CARE

When emergency events significantly impact the healthcare resources in Boone County, hospitals and emergency medical services responders may receive direction from their respective medical directors to initiate altered protocols and standards of care. Because each incident generates unique circumstances and considerations, individual facilities do not have specific trigger points, but rather will review the overall

operating picture of the facility and community or region to determine when and if altered standards of care are necessary. Some factors that might be considered when there is a potential for altered standards of care include:

- Community and facility critical infrastructure and function disruption
- Failure of surge capacity contingencies
- Human resource/staffing availability
- Emergency medical services call volume
- Emergency department wait time
- Material resource availability
- Patient care space availability
- Overall hospital bed availability
- Specialized care unit bed availability
- Disaster declaration in a facility, community or state

EM Resource and eICS will be included as methods to communicate altered standard of care information between facilities.

MEDICAL SURGE AND ALTERNATE CARE FACILITIES

Medical surge capabilities and alternate care facilities for healthcare agencies are handled per internal policies and procedures. The hospitals maintain internal disaster plans that detail how each hospital will respond to a patient surge. Regional surge plans are developed, exercised and coordinated by the Central Region of the MO Non-urban Healthcare Coalition. The goal is to have the capacity for a surge of 500 patients per 1,000,000 populations.

When hospitals cannot meet patient care needs within their facilities, state or federal partners may activate the Modular Emergency Medical System. The System is an expanded patient care system consisting of neighborhood emergency help centers, acute care centers, community outreach and temporary morgues that can be activated by the federal government.

Neighborhood emergency help centers may be instituted to triage ill and worried well, stabilize patients, provide prophylaxis or vaccination, and provide for transportation to acute care centers or hospitals. Admission to acute care centers and hospitals may only be allowed by way of triage through the neighborhood emergency help centers or physician's offices. Transportation resources are requested through the EOC, and may include local ambulance services, and private or city bus service. A list of all quick/extended/urgent care clinics that may be used as neighborhood emergency help centers are listed as Appendix 2.

Public messaging will be vital to direct injured members of the public to seek care at these locations and not at hospital emergency departments unless there is a life-threatening wound, injury or illness.

When a contagious agent is involved, public messaging and community outreach can be used to advise citizens to stay home, and to provide homebound assistance. This can control the spread of contagious diseases as well as prevent surge on hospital resources.

MENTAL HEALTH

PHHS will activate a mental health response when disasters occur that involve a mental health component. PHHS and the Missouri Department of Mental Health will collaborate to identify mental health services for responders, medical staff and the public. School counselors, church clergy and persons trained in Mental Health First Aid and Psychological First Aid may also be utilized through the volunteer coordination process.

Many issues with the mental health of the public can be addressed by a public information campaign. Information to the public on the nature of the disaster, any effects the disaster will have on their health, steps that they can take to protect their health, assistance available, as well as information hot lines and phone banks will assist the public in mental health recovery from a disaster of any kind. Public Information will be coordinated through the ESF-8 and/or the Joint Information Center (JIC), if activated.

The Department of Mental Health has compiled a list of administrative agent disaster contacts. In the event of a disaster or traumatic incident, the local public health agency and the administrative agent may wish to collaborate regarding public health and behavioral health outreach to the local community. Disaster behavioral health response efforts are provided voluntarily by the administrative agent and any costs involved are absorbed by that agency and/or Department of Mental Health. The mental health administrative agent for Boone County is Burrell Behavioral Health.

PHHS does not provide direct mental health services, but will coordinate the mental health response for Boone County by:

- Notifying the Missouri Department of Mental Health and the Boone County Administrative Agent, Burrell Behavioral Health.
- Assessing immediate needs and concerns of survivors.
- Ensuring that environmental and system-level needs are first addressed and provided promptly (ex: shelter, food, water)
- Offering practical assistance such as referral information.
- Mitigating dysfunction and distress (ex: by reunification of family members).
- Promoting adaptive psychological/behavioral functioning (ex: assigning meaningful tasks to survivors as appropriate).
- Facilitating access to the next level of mental health care.
- Ensuring public information includes mental health and referral information. A mental health professional may be asked to report to the JIC to assist with the crafting of these messages.
- Ensuring public information messages are not psychologically harmful.
- Monitoring rumors and/or misinformation that could exacerbate psychological distress.

TECHNOLOGY

All Missouri healthcare facilities have access to EMResource and eICS internet-based systems to report operational status of the hospitals and to share other pertinent partner information. Boone County Office of Emergency Management also has access to the systems to monitor hospital activity for situational awareness and information sharing. PHHS utilizes the Health Alert Network to communicate pertinent information to Boone County healthcare providers, and multiple technological tools for disease surveillance.

The Central Region of the MO Non-urban Healthcare Coalition and its partners utilize EMResource and eICS for the sharing of data and communications including but not limited to:

Health Care Coalition Incident Command status	Surge capability
Health Care Coalition notifications and communications	Staff availability
Hospital facility status	Mobile asset status
Hospital bed availability	Specialized care capability
Infrastructure queries	Diversion status

ASSIGNMENT OF RESPONSIBILITIES

PRIMARY AGENCIES

The agencies with primary responsibility to this plan are tasked with the following actions:

- Prioritization, allocation and/or tasking of medical assets in support of disaster relief and recovery efforts.
- Providing liaison(s) and point of contact for ESF-8 at the EOC.
- Maintaining records of costs for supplies, resources and man-hours used in response to the disaster event.
- Maintaining standard operations guidelines (SOGs) that address medical responsibilities and needs.
- Maintaining lists of potentially available medical resources.
- Maintaining current mutual aid agreements, memoranda of understanding, and contractual resources to support disaster emergency medical needs.

COLUMBIA BOONE COUNTY PUBLIC HEALTH AND HUMAN SERVICES (PHHS)

The Columbia/Boone County Department of Public Health and Human Services (PHHS) is a public health agency established by the Columbia City Charter that provides public health and social services to residents of Boone County. There is an annual agreement between the City of Columbia and the Boone County Commission for the provision of services to Boone County residents outside of the incorporated city limits. This includes essential public health services such as the control and investigation of communicable diseases, environmental sanitation, vector control, food and water safety, animal control, social services and other critical issues.

The PHHS has a significant role in public health emergency response, which includes disease surveillance,

investigation, and control measures such as mass prophylaxis, isolation and quarantine, as well as record maintenance. The Columbia/Boone County Department of Public Health and Human Services has the responsibility to monitor the outbreak of diseases, unexplained illnesses, etc. which may be either naturally occurring or the result of a terrorist incident. Through its surveillance network and other mechanisms in place, the Health Department will track patterns of illness and medical complaints among the citizens of Columbia and Boone County, and share its information with Boone County public safety for additional support in data collection to determine the scope of the threat.

The director of the PHHS has the authority to declare a local public health emergency. In a local public health emergency, the health director will consult with the chief elected officials for Boone County and its municipalities, as well as with the emergency management director. Assistance and consultation are provided as needed from the Missouri Department of Health and Senior Services, Missouri Department of Natural Resources and the Missouri Department of Agriculture.

The PHHS has developed a Local Public Health Emergency Plan (LPHEP) to guide public health emergency operations for the county during a disaster. That plan and this annex will be the basis for activities performed and led by the PHHS regarding health and medical issues. The plan is maintained and kept on file with PHHS. Copies are also kept on file with the Boone County OEM, as well as other appropriate local officials.

It is the responsibility of the PHHS to coordinate the public health-related aspects of the local response to an emergency. When the local public health emergency exceeds the department's ability to handle the situation, PHHS will coordinate with emergency management officials, and local, state and federal partners.

HOSPITALS

Hospitals in Columbia will provide patient care, and request support from surrounding area hospitals as necessary through Hospital Mutual Aid coordinated by the MO Hospital Association. See list of Central Region hospitals in Annex 2.

PREHOSPITAL SERVICES

The hospital ambulance services will be responsible for first response triage, support of pre-hospital decontamination, medical care and patient transport. Prehospital capabilities are as follows:

UHC EMS - 6 advanced life support (ALS) ambulances staffed 24/7; 12 total in the fleet, with reasonable expectation to be able to staff a minimum of 3 additional in a crisis for 9 total.

BHC EMS - 3 ALS ambulances staffed 24/7 with 5 staffed at peak operation; 10 total in the fleet, with reasonable expectation of a minimum of 7 staffed in a disaster situation.

[Information provided 031819.]

SUPPORT AGENCIES

BOONE COUNTY OEM

Boone County OEM will coordinate with the primary and support agencies listed in this annex to identify available resources and ensure all resource needs are met.

OEM will gather situational incident information regarding resources, status of infrastructure, evacuation routes, etc., and will coordinate with the PIO(s)/JIC to disseminate pertinent information to the public. Boone County GIS will provide mapping support for these functions.

OEM will also be responsible for gathering cost information from resource providers to prepare for potential declaration of disaster.

FIRE DEPARTMENTS

Boone County's fire agencies use personnel trained in medical first response including first responder, emergency medical technician and paramedic levels of care. The fire agencies support the ambulance services by providing pre-hospital first response triage, rescue, medical care, and pre-hospital decontamination.

MUTUAL AID PARTNERS

Mutual aid health and medical resources may be requested through various avenues, including Show-Me Response, regional and statewide EMS and hospital mutual aid, SEMA, the Healthcare Coalition, and inter-state or federal response should there be a presidential disaster declaration.

Mutual aid resources will be managed by the EOC and local incident commanders but will retain the administrative oversight of their home agencies per Missouri Revised Statutes 44.090, 90.107 and 44.045.

MEDICAL RESERVE CORPS (MRC)

Crisis augmentation of health and medical personnel will be performed when needed by the Medical Reserve Corps and spontaneous medical volunteers. Spontaneous medical volunteers will be processed by the Medical Reserve Corps. Additional volunteer medical response support can be requested through Show-Me Response.

BOONE COUNTY MEDICAL EXAMINER

The Boone County Medical Examiner will be responsible for the expansion of mortuary services in a mass casualty incident. The medical examiner has statutory authority to manage the deceased in Boone County during routine and disaster situations. See Appendix 4 - Boone County Mass Fatality Plan.

CENTRAL REGION OF THE MO NON-URBAN HEALTHCARE COALITION (HCC)

When emergency events significantly impact the health care resources in Boone County, the Healthcare Coalition will be activated to provide information sharing and resource coordination among hospitals and other healthcare facilities. The Coalition can provide technical specialists to the EOC or the healthcare command and can facilitate information flow via EMResource and eICS.

STATE RESOURCES

State health resources may be available with or without a state or federal declaration. Requests for state and/or federal assistance will be coordinated through the Boone County Office of Emergency Management.

The Missouri Department of Health and Senior Services maintains vital records, is responsible for accessing federal resources, and can provide medications and vaccines to local jurisdictions.

The State Emergency Management Agency is the point of contact for requesting Strategic National Stockpile (SNS) assets, and MO DMAT or MO DMORT.

Missouri Dept. of Mental Health can support a local incident by identifying mental health services for responders, medical staff and the public.

DIRECTION AND CONTROL

Boone County government, response agencies, and the municipalities within the county have adopted the National Incident Management System (NIMS) and the Incident Command System (ICS) as the standard for incident response and management.

Health and medical activities and missions will be coordinated by the ESF-8 representative or coordination group, with the supporting and assisting agencies retaining administrative direction and control over their resources. Coordination will be established with the EOC (if activated) and/or IC to prioritize and develop strategies and missions for response and recovery.

Decisions concerning healthcare facilities will be made by the administration and staff of those facilities. Command and control will be the responsibility of the facilities' Incident Commanders. The EOC will provide support and coordination as requested.

CONTINUITY AND SUCCESSION

Lines of succession and continuity of operations plans are maintained at the agency or department level.

Records vital to the continuity of the ESF functions are duplicated and stored at alternate locations. To provide normal operations after a disaster, the essential records for the Columbia/Boone County Department of Public Health and Human Services are protected and preserved at 1005 W. Worley, Columbia, MO and are maintained with the following guidelines:

- The Registrar and Records Custodians for the PHHS are responsible for the day to day maintenance of records and documents vital to the operation of the agency.
- The Community Health Manager is the custodian of all medical records.
- The Environmental Health Manager is the custodian of all Environmental Health records.
- The Animal Control Supervisor is the custodian of all Animal Control records.
- The Columbia City Clerk and/or PHHS Director are the custodians of all City Council approved contracts, records and documents for the PHHS.
- Resources for the duplication and movement of records for safekeeping will be allocated.

ADMINISTRATION AND LOGISTICS

Specific operating procedures and protocols are maintained by the participating organizations.

Facilities and points of contact are maintained in the EOP Contact and Resource Guide

Mutual aid agreements, memoranda of understanding and contractual resource lists regarding transportation operations are maintained within individual agencies.

Procedures for use of forms, compiling information, and providing data to the EOC are in the EOC SOG.

The EOC will provide support and resources at the request of the incident commander.

Supply requisitions/resource requests will be made through normal channels as much as possible but will be made through the EOC when necessary, coordinated by ESF-7. Unusual expenditures will be directed to the Emergency Management Director and coordinated with the jurisdictional purchasing agents as per documented purchasing procedures.

Statistics and documentation are vital for response to, and recovery from, a disaster. Data to be documented and reported to the EOC includes but is not limited to:

- Casualties - number of deaths will be obtained as confirmed deaths through the Medical Examiner's Office.
- Injuries/numbers and destinations of patients transported.
- Vaccinations given (specific to the event).
- Incidence of disease specific to the event and/or as required by law
- Hospital census/status

Accurate records of hours worked, and supplies used must be reported to the EOC for use in determining the total cost of the disaster. All actions taken must be recorded as they are essential for future planning, response and recovery, mitigation, training and exercise.

APPENDICES

Appendix 1: Local Public Health Emergency Plan (Executive Summary)

Attachment A - Public Health Functional Diagram

Appendix 2: Health and Medical Resources and Assets – Region F Hospitals

Appendix 3: Multi-Casualty Incident

Appendix 4: Boone County Mass Fatality Response Plan

Appendix 5: Family Assistance Center Plan

Appendix 6: CHEMPACK Information

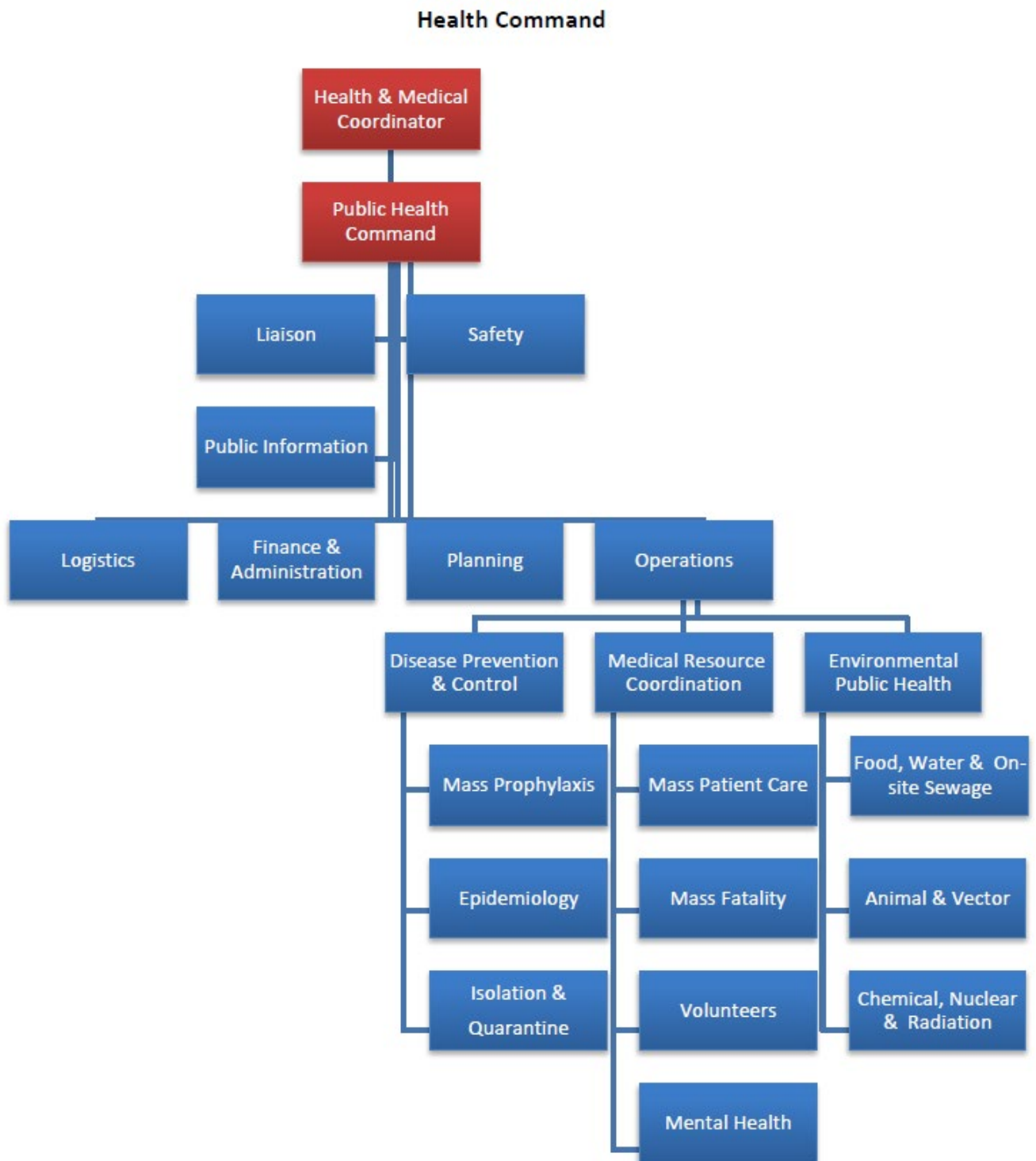
ESF-8 APPENDIX 1: LOCAL PUBLIC HEALTH EMERGENCY PLAN

The Columbia/Boone County Department of Public Health and Human Services has developed a Local Public Health Emergency Plan to respond to, recover from, and reduce the threat of bioterrorism and other public health emergencies. The plan is outlined in the executive summary below. The plan is maintained by and kept on file with the Columbia/Boone County Department of Public Health and Human Services. Copies are also on file with the Office of Emergency Management, and other appropriate local officials.

LPHEP EXECUTIVE SUMMARY

- A. The Local Public Health Emergency Plan (LPHEP) outlines the actions to be taken by the Local Public Health Agency (LPHA), in conjunction with local government officials and cooperating private and volunteer organizations. A local public health emergency can best be described as an event which threatens the safety and well-being of people in an area, for example, bio-terrorism incident, a natural or man-made disaster, pandemic influenza, etc. To work towards a safer environment, the plan has been developed to:
 - a. Reduce the vulnerability of citizens to any disasters that creates a local public health emergency.
 - b. Establish capabilities for protecting citizens from the effects of a local public health emergency.
 - c. Respond effectively to the actual occurrence of disasters, and;
 - d. Provide for recovery in the aftermath of any local public health emergency.
- B. The Boone County LPHEP is a multi-hazard, functional operational response plan that has three components:
 - a. An Introduction that serves as an overview of the LPHA's approach to a local public health emergency.
 - b. Chapters that address specific functions critical to emergency response and recovery, and;
 - c. Appendices which support each chapter and contain technical information, details and methods for use in emergency operations.
- C. The importance of understanding the contents of the plan cannot be underestimated. All individuals who may have any involvement with the plan must be briefed and understand their roles in its implementation. Staff members of the LPHA will be responsible for maintenance, training, updating and developing exercises to improve the plan.
- D. The entire LPHEP can be found in the LPHA or with the Emergency Management Director.

ESF-8 APPENDIX 1: ATTACHMENT A - PUBLIC HEALTH FUNCTIONAL DIAGRAM



ESF-8 APPENDIX 2: HEALTH AND MEDICAL RESOURCES AND ASSETS

Individual resource inventory is maintained at an agency level.

A comprehensive list of Health and Medical Resource Contacts is kept in the Health Alert Network Capacity System at the Health Department as well as in the EOC Contact and Resource Guide.

Region F/Central Region Hospitals

Boone County

Boone Hospital Center
Harry S Truman Memorial Veterans Hospital
Howard A Rusk Rehabilitation Center
Landmark Hospital of Columbia, LLC
Missouri Orthopaedic Institute – MU Health Care
University Hospital – MU Health Care – Level I Trauma Center
Women’s and Children’s Hospital – MU Health Care
Missouri Psychiatric Center – MU Health Care

Audrain County

SSM Health St. Mary’s Hospital - Audrain

Callaway County

Fulton Medical Center
Fulton State Hospital – State psychiatric hospital

Camden County

Lake Regional Health Systems – Level III Trauma Center
Osage Beach Center for Cognitive Disorder

Cole County

Capital Region Medical Center
SSM Health St. Mary’s Hospital - Jefferson City

Cooper County

Cooper County Community Hospital

Gasconade County

Hermann Area District Hospital

Urgent Care Facilities in Boone County:

Boone Medical Group- Convenient Care
601 Business Loop 70 West
Parkade Center, Suite 275
Columbia, MO
573-874-0008

Mizzou Quick Care- Conley
25 Conley Road
Columbia, MO 65201
573-884-0169

Boone Medical Group-Convenient Care
900 West Nifong Blvd, Suite 101
Columbia, Mo 65203
573-815-6631

Mizzou Quick Care- Nifong
405 E. Nifong Blvd
Columbia, MO 65201

Broadway Urgent Care- West
2003 West Broadway, Suite 100
Columbia, MO 65203
573-777-5880

Mizzou Urgent Care
3916 S. Providence
Columbia, MO
573-882-1662

broadwayuc@gmail.com

Providence Urgent Care
202 E. Nifong Blvd
Columbia, MO 65203
573-874-6824

Broadway Urgent Care- East
401 N. Keene St.
Columbia MO, 65201
573-876-1677

Providence Urgent Care
403 N. Stadium Blvd
Columbia MO 65203
573-818-6500

Columbia Urgent Care
619 N Providence Rd #4355
Columbia, MO 65203
(573) 234-1070
columbiaurgentcare@mail.com

Providence Urgent Care
2910 Trimble Road
Columbia MO 65201
573-397-7434

Mizzou Quick Care- Broadway
3100 West Broadway
Columbia, MO 65203
573-884-0036

Federally Qualified Health Center

Family Health Center
1001 W Worley St.
Columbia, MO 65203
573-214-2314

ESF-8 APPENDIX 3: MCI RESPONSE PLAN RUBERICS – LEVELS 1-3

MCI Response Plan Rubric						
Level I MCI 5-10 victims						
	CFD	Notification method	BCFPD	Notification method	SBCFPD	Notification method
Fire Apparatus Dispatched	1 st due companies		SR, SR, squad	D	1 st due companies	D
ALS Ambulances Dispatched	3	D	3	D	3	D
Mutual Aid Ambulances	Backfill city		Backfill city		Backfill city	
MCI Resources Dispatched	MC-115	D	Support 510, MC-115	D	Support 510, MC-115	D
Law Enforcement	CPD – 2 officers All others – 1 officer					
Automatic EOC Activation	No		No		No	
Personnel/Agency Notifications	CFD Dep Chf	M	BCFD Duty Chief	P/M		
	Div Chf Bat Chf	D	BCFD All Call	T		
	EMS 10	M	EMS 10	P/M	EMS 10	P/M
	EMS 11 EMS 15		EMS 11 EMS 15		EMS 11 EMS 15	
	EMS 2	M	EMS 2	P/M	EMS 2	P/M
	UHC ER BHC ER WCH ER		UHC ER BHC ER WCH ER		UHC ER BHC ER WCH ER	
	Director BCJC UH EMS Duty Supv Director OEM	M	Director BCJC UH EMS Duty Supv Director OEM	M	Director BCJC UH EMS Duty Supv Director OEM	M
	Law Field Supv		Law Field Supv		Law Field Supv	

D = Dispatch

M=Text Message/Alpha Page

T=Tones Only

P=Phone Call

MCI Response Plan Rubric						
Level II MCI 11-20 victims						
	CFD	Notification method	BCFPD	Notification method	SBCFPD	Notification method
Fire Apparatus Dispatched	1 st due companies		SR, SR, squad, CMD1	D	1 st due companies, squad	D
ALS Ambulances Dispatched	6	D	6	D	6	D
Mutual Aid Ambulances	Backfill and scene		Backfill and scene		Backfill and scene	
MCI Resources Dispatched	MC-115	D	Support 510, MC-115	D	Support 510, MC-115	D
Law Enforcement	CPD – 2 officers All others – 1 officer					
Automatic EOC Activation	No		No		No	
Personnel/Agency Notifications	CFD Dep Chf	M	BCFD Duty Chief	P/M		
	Div Chf Bat Chf	D	BCFD All Call	T		
	EMS 10	M	EMS 10	P/M	EMS 10	P/M
	EMS 11 EMS 15		EMS 11 EMS 15		EMS 11 EMS 15	
	EMS 2	M	EMS 2	P/M	EMS 2	P/M
	UHC ER BHC ER WCH ER		UHC ER BHC ER WCH ER		UHC ER BHC ER WCH ER	
	Director BCJC UH EMS Duty Supv UH PHS Dir UH Med Dir Director OEM	M	Director BCJC UH EMS Duty Supv UH PHS Dir UH Med Dir Director OEM	M	Director BCJC UH EMS Duty Supv UH PHS Dir UH Med Dir Director OEM	M
	Law Field Supv		Law Field Supv		Law Field Supv	

D = Dispatch

M=Text Message/Alpha Page

T=Tones Only

P=Phone Call

MCI Response Plan Rubric						
Level III MCI 21+ victims						
	CFD	Notification method	BCFPD	Notification method	SBCFPD	Notification method
Fire Apparatus Dispatched	1 st due companies		SR, SR, squad	D	1 st due companies	D
ALS Ambulances Dispatched	3	D	3	D	3	D
Mutual Aid Ambulances	Report to Staging		Report to Staging		Report to Staging	
Mutual Aid Helicopters	Request MU 2 and MU 3 to UH and WCH		Request MU 2 and MU 3 to UH and WCH		Request MU 2 and MU 3 to UH and WCH	
MCI Resources Dispatched	MC-115	D	Support 510, MC-115	D	Support 510, MC-115	D
Law Enforcement	CPD – 2 officers All others – 1 officer					
Automatic EOC Activation	No		No		No	
Personnel/Agency Notifications	CFD Dep Chf	M	BCFD Duty Chief	P/M		
	Div Chf Bat Chf	D	BCFD All Call	T		
	EMS 10	M	EMS 10	P/M	EMS 10	P/M
	EMS 11 EMS 15		EMS 11 EMS 15		EMS 11 EMS 15	
	EMS 2	M	EMS 2	P/M	EMS 2	P/M
	UHC ER BHC ER WCH ER		UHC ER BHC ER WCH ER		UHC ER BHC ER WCH ER	
	Director BCJC UH EMS Duty Supv UH PHS Dir UH Med Dir Director OEM	M	Director BCJC UH EMS Duty Supv UH PHS Dir UH Med Dir Director OEM	M	Director BCJC UH EMS Duty Supv UH PHS Dir UH Med Dir Director OEM	M
	Law Field Supv		Law Field Supv		Law Field Supv	

D = Dispatch

M=Text Message/Alpha Page

T=Tones Only

P=Phone Call

ESF-8 APPENDIX 4: BOONE COUNTY MASS FATALITY RESPONSE PLAN

By Missouri State Statute set forth in RSMo Chapter 58, the Coroner/Medical Examiner is the legal authority responsible for the recovery, identification, sanitation and preservation (such as embalming, if necessary), notification of the next of kin, and facilitating the release of the identified deceased to the next of kin or their agent.

The Boone County Medical Examiner (ME) has overall fatality management responsibility.

ACTIVATION LEVELS

Activation levels have been defined based on numbers of decedents and complexity of the situation:

Level 1 Description

Level 1 involves eight to twelve (8-12) anticipated decedents requiring recovery, transportation, and identification.

- Requires family assistance services
- Is managed by the local jurisdiction
- Human remains are not contaminated by any toxic or hazardous materials
- Human remains are generally intact.
- No criminal or terrorist involvement is suspected

Level 2 Description

Level 2 involves twelve to twenty (12-20) anticipated decedents requiring recovery, transportation, and identification.

- Requires family assistance services
- Is managed by the local jurisdiction and may need resources/assistance from outside the operational area
- Human remains are not contaminated by any toxic or hazardous materials and are generally intact

Complexity issues of the incident may necessitate the ME's administration to request a higher level of activation to obtain additional supportive resources. Such issues may be an increasing scope and magnitude of recovery operations, involvement of dignitaries, and/or other complicating aspects of the operation.

**** * If the complexity involves any of the following, proceed to Level 3 Activation:***

- Fragmented human remains
- Tedious recovery or difficulty in locating and recovering remains
- Contaminated remains requiring decontamination
- Criminal involvement
- Suspected terrorist activity

- Other factors that require an enhanced level of management and coordination

Level 3 Description

Level 3 involves twenty to thirty-five (20-35) anticipated decedents requiring recovery, transportation, and identification.

Is considerably more complex than a Level 2 Activation. Complexity may include factors such as:

- Fragmented human remains
- Tedious recovery or difficulty in locating and recovering remains
- Contaminated remains requiring decontamination
- Criminal involvement
- Suspected terrorist activity
- Other factors that require an enhanced level of management and coordination

The Boone County Emergency Operations Center is activated for required logistical support.

The Central Region of the MO Non-urban Healthcare Coalition may be activated to act as a conduit for mutual aid resource requests from around Region F.

Level 4 Description

Level 4 involves greater than 35 anticipated decedents requiring recovery, transportation, and identification.

A Level 4 Activation may meet some or all of the Level 3 complicating factors and would be indicated when routine mass fatality management resources are stressed by extraordinary circumstances requiring more resources than are available within the County.

Level 4 Activations with an event that is considerably more complex than a Level 3 Activation.

The Boone County Emergency Operations Center is activated and manages all resources requests from response partners.

Actions taken during Level 4 activations are focused on maintaining the integrity of the medical/health system, providing resources to support response and recovery efforts for multiple mass fatality events, and ensuring the general health and welfare of persons affected.

** Level 4 Activations may require the use of non-traditional /alternative death care delivery methods as coordinated by the ME. Level 4 is a “Contingency Activation”.

Level 5 Description

A Level 5 Activation may be indicated when routine mass fatality management resources are stressed by extraordinary circumstances requiring more resources than are available within the county. These events exceed the county’s ability to manage or mitigate the event without the assistance of state and federal resources. In a Level 5 Activation, resources from outside the county may not be available.

Boone County Emergency Operations Center (EOC) will be activated and will prioritize and allocate the resources assigned to the event. The ME administration requests assistance from state, federal, and private sources and communicates this request to the EOC.

The Central Region of the MO Non-urban Healthcare Coalition will coordinate regional medical mutual aid requests in support of the incident. Boone County EOC can request additional resources through the State EOC, including disaster mortuary resources associated with the Missouri Disaster Mortuary Response Team (MODMORT).

** Level 5 Activations will likely require the use of non-traditional /alternative death care delivery methods as coordinated by the ME.

ALERTING/NOTIFICATION

An alert will be issued when an event has the potential to require activation of the mass fatality plan. Early notification prepares the health care, mortuary services and ME systems for larger than expected numbers of decedents.

Alerts may be issued by the Boone County Joint Communications and/or Office of Emergency Management for situations in which:

- Several incidents occur that are significant by either magnitude or nature
- The ME system and mortuary services resources are low or close to being insufficient
- There is complete or partial failure of the health care and/or ME critical infrastructure (facilities, communications system, etc.)
- A potential or actual public health emergency exists

Depending on the magnitude of the event and the resulting resource needs, alerts/notifications will potentially be sent to the following stakeholders who will in turn make further necessary notifications. The Incident Commander will determine what agencies and resources need to be notified. **Initial notifications will normally be sent by Boone County Joint Communications.**

Level 1 and Level 2 Notifications

The Columbia/Boone County Department of Public Health and Human Services Environmental Health on-call staff can be reached at 573-328-5368, and will notify:

- PHHS Director/Assistant Director
- PHHS Epidemiologist
- Public Health Emergency Planner

Local hospitals will alert hospital house supervisors.

Death investigator and/or ME

- University Chaplain's office

EMS and fire department resources

Boone County Emergency Management

- County Commissioner
- Columbia City Manager
- Public information officers
- The Columbia/Boone County Department of Public Health and Human Services Director or designee

Boone County Health and Medical Emergency Planning Committee

Central Region of the MO Non-urban Healthcare Coalition

Level 3, 4 and 5 Notifications

All Level 1 and 2 Notifications plus ME's Office notifies Chaplain Volunteers

ROLES AND RESPONSIBILITIES

Boone County Joint Communications

Makes notifications/sends out alerts.

Boone County ME

Has overall fatality management responsibility.

Initiates actions to ensure the integrity of the ME's system.

Provides liaison to Boone County EOC.

Provides technical assistance in support of the incident.

Ensures adequate resources are available to support the incident and the ME system.

Requests and coordinates the response and mission tasking of all fatality management surge mutual aid resources.

Consider requesting temporary morgue site from the EOC.

Oversight of the Family Assistance Center (FAC) operation.

Conducts survey of private funeral industry resources to support event. Includes storage capacity, staffing, transportation vehicles and equipment/supplies.

Ongoing mass fatality surge capacity plans.

Provides ongoing resource and situation status updates to the EOC.

Coordinates and ensures decontamination of the deceased.

Activates county vital record's surge capacity.

Recommends and initiates policy modification or suspension which may include:

- Amended dispatch procedures for ME's personnel.
- Modification of death certificate procedures.

- implementation of altered standards of death care for collection, storage, and identification of the deceased including non-refrigerated storage of bodies, temporary interment of the deceased, mass cremation, suspension of funerals, and establishment of public access to fatality drop off/collection points.

Makes policy recommendations for return to normal standard of death care after incident has been controlled.

ME investigator

Communicates with hospitals.

Serves as a liaison to the ME.

Coordinates transport services to support movement of the deceased for the purpose of collection, storage and final disposition.

ME Transport Service Provider(s)

Provides transportation of the deceased as directed by the ME for storage, processing and final disposition.

Request additional transportation resources if necessary.

Ensures adequate transport resources are available to the medical/health system.

Boone County Office of Emergency Management

Provides coordination to agencies and jurisdictions per the National Incident Management System.

Staffs and manages the Emergency Operation Center (EOC).

Receives and processes resource requests from the local jurisdictions to the State Emergency Management Agency (SEMA).

Coordinates the development of a local emergency declaration.

Supports Family Assistance Center (FAC) activation.

Gathers, processes and shares situational information.

Develops and distributes consolidated Incident Action Plan (IAP).

Coordinates local emergency declaration process.

Contacts Columbia REDI to get a list of potential temporary morgue sites.

Overall policy level management and mitigation of events occurring with each individual jurisdiction.

Resource coordination including prioritization of requests/needs.

Establishes and manages a JIC.

Columbia/Boone County Department of Public Health and Human Services (PHHS)

Directs fatality related concerns directly to the ME.

PHHS Director will assign a liaison to the ME.

Provides ESF-8 liaison to the Boone County EOC.

Coordinates with Boone County hospitals for resource management.

Maintains continuous resource and situation status with the Healthcare Coalition through EMResource and eICS.

Requests supplies from Strategic National Stockpile (SNS).

Considers establishing warehouse site to manage and distribute the inventory.

Coordinates behavioral health services for healthcare responders, responders' families, existing mental health clients and other community members.

Activates, staffs and manages Department Operation Center (DOC).

Provides technical specialists to support incident action planning.

Establishes guidelines for public access to fatality drop off/collection points throughout the county during periods of isolation, quarantine or social distancing.

Initiates internal disaster staffing plan and implements appropriate contingency actions and plans.

Hospitals

Direct fatality related concerns directly to the ME.

Prepare to provide extended storage for the deceased patients who have expired in-hospital.

Complete morgue space availability query.

Initiate internal mass fatality surge capacity plans.

Implement the Hospital Incident Command System (HICS) and any appropriate contingency actions and plans.

Maintain continuous resource and situation status with the Healthcare Coalition through EMResource and eICS.

Maintain continuous resource and situation status with Boone County hospitals through the EMResource and eICS.

Public Safety (law enforcement/fire)

Provides overall "on-scene" incident management and mitigation

Provides scene security

Conducts investigation

Provides support to ME

Provides security for SNS

ESF-8 APPENDIX 5: FAMILY ASSISTANCE CENTER (FAC) PLAN

FAC OVERVIEW AND PURPOSE

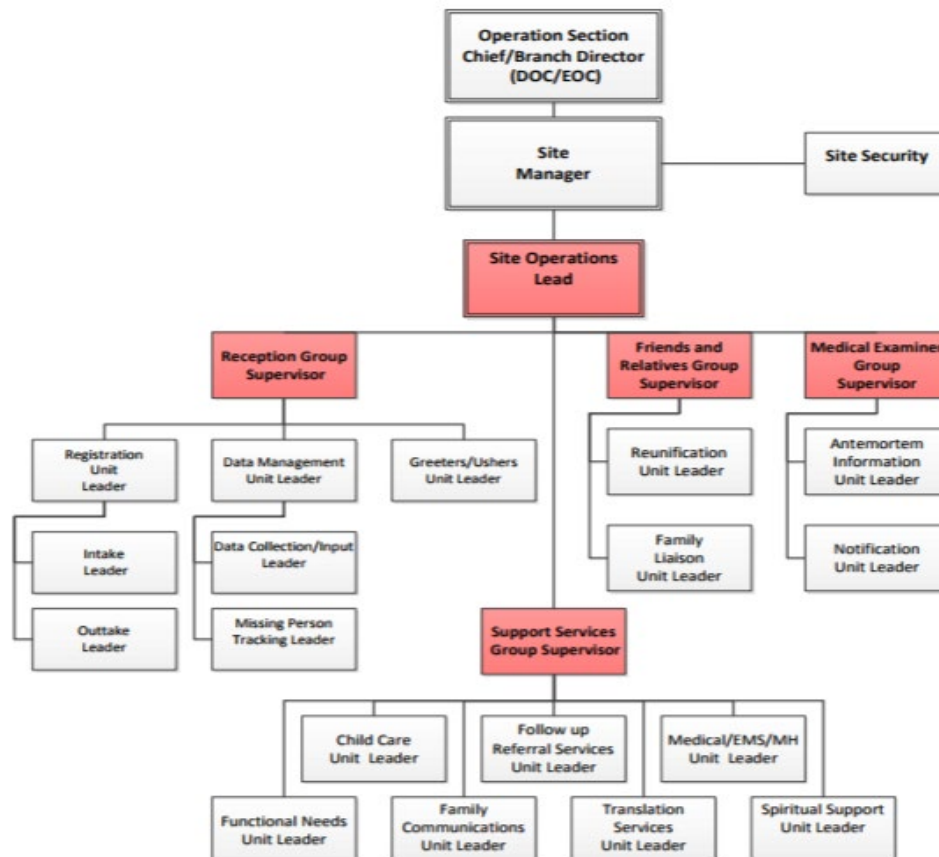
In the immediate aftermath of a mass fatality incident (MFI) family and friends of the victims/missing persons will spontaneously start to gather to search for, or to seek information about, their loved one's location and condition. Within 12-24 hours after an MFI, Boone County will establish a Family Assistance Center (FAC) to provide a safe, secure and centrally located place for family members of potential victims to obtain information and support services.

A FAC is a multi-agency site under the direction of the Medical Examiner, the primary purpose of which is to gather information from families to positively identify fatalities resulting from the incident. An FAC is a secure area used for 1) supporting the collection of ante mortem information, 2) notifying families of positive identification of victims, 3) sharing situational updates, and 4) providing behavioral health and emotional support to family members and friends.

FAC services may be delivered in one or multiple locations and may function for multiple operational periods. Potential staffing partners include PHHS leadership and staff, mental health professionals, social workers, law enforcement, MRC volunteers, American Red Cross, social service agencies and faith-based partners. Mutual aid will likely be needed to provide efficient FAC operations.

The command structure for the FAC will follow the NIMS/ICS structure.

FAC ORGANIZATIONAL STRUCTURE



SITE SELECTION FOR THE FAC

The location of the Boone County FAC will be largely contingent upon the type of incident and number of fatalities, and ease of access for the victims' families and friends. The site will also be able to be controlled with a security perimeter.

Potential locations are to be determined. MOUs will be developed between facility/site ownership and the Boone County Commission.

The FAC will be a location that is compliant with the Americans with Disabilities Act (ADA).

The FAC may assist families and friends with transportation to and from the facility, and finding lodging accommodations, if needed.

The locations identified are capable of both immediate use, and long-term operations, depending upon the needs of the incident. The FAC will operate until all identifications have been made and families have been notified by the ME

Ideally, one large FAC should be able to handle the needs of all the victims' families, rather than several smaller ones

ADA Checklist for Existing Facilities <http://www.adachecklist.org/doc/fullchecklist/ada-checklist.pdf>

Media will not be allowed entry to the FAC or immediate surroundings.

ROLES WITHIN THE FAC

Each of the FAC key positions listed below provides a critical function that is not used in other types of public health responses.

Family Liaison

The role of the Family Liaison is to accompany and direct individual families to necessary resources as they navigate the FAC. This may include resources to meet physical needs (e.g., food, medical) as well as informational resources (e.g., time of scheduled family briefings, contact information for social services, emotional support). Family Liaisons will also provide support to families during and/or following the Ante mortem interview process and large briefings.

Ante mortem Interviewer Assistant

The role of the Ante mortem Interview Assistant is to aid in the confidential collection of personal information that will be used for positive identification of decedents. The Ante mortem Interview Assistant operates under the direction and authority of the Medical Examiner's Office.

Family Briefer

The primary role of this position is to provide regular briefings at the FAC to keep family members informed of incident information and the status of the investigation. The Family Briefer presents information to larger groups of people and differs from the Family Liaison role, whose focus is on an individual family. Family Briefers are the central hub of all information being communicated to family members. At times, the Family Briefer will need to bring forward other subject matter experts who can better inform the families. This may include, but is not limited to, the medical examiner, law enforcement or fire investigators, volunteer agency staff and other critical agency leadership. The role

of the family briefer is fundamentally different than the Public Information Officer, whose responsibility it is to communicate with the media. Family briefers must have the inherent ability to speak with people who are dealing with intense trauma in a manner that is both compassionate and confident.

FAC RESPONSIBILITIES

Medical Examiner

- Overall responsibility for mass fatality management
- Initial notification for activation of a FAC
- Ante mortem data and record collection
- Communication with families and managing expectations
- Time Frames and processes
- Coordination with Public Information Officer (PIO) for press conferences

Emergency Management

- Responsible for maintaining situational awareness on all county incidents and coordinating resources.

Law Enforcement

- Locating families/individuals
- Assist with collection of ante mortem information
- Providing security to the FAC

Public Health and Human Services

- Upon notification from County EOC or the Medical Examiner, PHHS will become responsible for FAC site management and operations.

FAC PROCESSES AND PROCEDURES

Registration/Intake Area Process

- Greeters at entrance will direct family members to reception area.
- Greeters will assess them for needs (interpreter, mobility, etc.) and coordinate with other staff to accommodate needs.
- At the reception area, family members will need to sign-in and show photo ID.
- Family members or survivors will complete the appropriate forms
- Family member/s will receive Family Resource Packet.
- Be assigned a Family Liaison.
- Be escorted to appropriate area(s) within the FAC.

Ante mortem Information (AI) Interview

- Interview participants include the decedent's family representative(s), 2 AI Interview assistants, and preferably the liaison.
- Interviews are either done face-to-face or by phone. The Victim Identification Profile (VIP) questionnaire form will be utilized to collect the information.

[Additional information to be added:]

Site org chart

Site layout

Overall site flow

Position checklists (PCL)

Position and overall Standard Operating Procedures (SOPs)

DMORT VIP interview form

Crisis communications handout (CDC)

Job aids

Forms

- Daily Sign-In Sheet
- Missing Person Form
- Survivor Form
- Family liaison assignment sheet
- Family liaison data collection sheet
- Tracking form

Family Resource Packets

Registration and intake procedures

Data Management and Missing Persons Tracking Procedure

ESF-8 APPENDIX 6: CHEMPACK INFORMATION AND REQUESTING PROCEDURE

CHEMPACK is a cache of medications to be dispensed in the event of a nerve agent incident or organophosphate poisoning due to a terrorist attack or hazmat incident.

The CHEMPACK Program is part of the Strategic National Stockpile (SNS) program. Containers of antidotes are pre-positioned in two secure locations in Region F. Location information is shared with emergency responders on a need-to-know basis to maintain security. Other CHEMPACK locations can be found in WebEOC under the CHEMPACK board and through EMResource.

Each CHEMPACK container includes medications with a treatment capacity of up to 454 patients at a moderate or severe exposure level. These containers are portable, and contents can be transported as needed. The antidotes included in the CHEMPACK containers are specially packaged into auto-injectors and designed for rapid administration at the incident scene. Medications in the CHEMPACK containers are only used for patient treatment of a chemical incident where exposure to organophosphates (agricultural pesticides such as Parathion, Malathion, Chlorpyrifos, or Diazinon) or nerve agent gases (Sarin, Soman, Tabun, VX) has occurred.

Procedures for Requesting CHEMPACK Medications

On-scene Incident Command, EMD or an on-scene responder will notify BCJC to place the call to the closest CHEMPACK site/POC.

In Region F, the agencies housing the CHEMPACK will assist with transport of the medications to the requested staging area or treatment facility. MSHP and local law enforcement agencies may be called upon to ensure the security of CHEMPACK assets at the scene, during transport, and/or with security at the host hospital.

The following information should be provided to the CHEMPACK custodial site by BCJC:

BCJC will state the reason for the request. Ex. – “There has been an organophosphate/nerve agent release and CHEMPACK resources are requested.”

BCJC will provide name, location and phone number of the entity requesting the CHEMPACK. (Ex. IC at scene).

Describe how much of the CHEMPACK container is being requested, and how many individuals will be treated (auto-injectors/multi-dose vials).

Determine how transport of the CHEMPACK contents will be accomplished, i.e. by host facility or by law enforcement, and get specific instructions for pick-up.

The Chain-of-Custody Form must be signed when the CHEMPACK medications are picked up. Provide the name of the person who will be signing. A legal form of identification must be provided at time of pick-up.

BCJC will provide the estimated time of arrival of the courier to Incident Command. Note: If transportation is made by someone other than law enforcement, security must be ensured during movement and transportation of antidotes.

BCJC will contact Region F SEMA Coordinator -- 573-644-3728 and DHSS Emergency Response Center (800) 392-0272. SEMA Regional Coordinator will notify SEMA (Ops Chief, Preparedness Chief, Deputy Director).

ESF-9: SEARCH, RESCUE & RECOVERY

ESF-9 provides for the guidance and organization of resources within Boone County that may be employed to conduct land, water, air-based and collapsed structure search and rescue (SAR) operations.

Agencies with identified roles and responsibilities in this annex include, but are not limited to:

Boone County Fire Protection District (BCFPD)
Boone County Sheriff's Department (BCSD)
Municipal law enforcement agencies within Boone County
Boone County Joint Communications (BCJC)
Boone County Office of Emergency Management (BCOEM)
Boone Hospital Center and BHC Ambulance Service (BHCEMS)
Centralia Fire Department (CEFD)
Columbia Fire Department (CFD)
Columbia Regional Airport Public Safety (COU APS)
Missouri Civil Air Patrol (CAP)
Missouri National Guard (MONG)
Missouri State Highway Patrol (MSHP)
Missouri Task Force 1 Urban Search & Rescue (MO-TF1)
Southern Boone County Fire Protection District (SBCFPD)
University of Missouri Healthcare and UM Health Care Ambulance Service (UHC EMS)

SITUATION AND ASSUMPTIONS

SITUATION

Boone County is vulnerable to disasters that may require the utilization of air, ground and water operations to provide search, rescue and recovery. SAR operations include the location, recovery and extrication of victims who become lost or entrapped as the result of a major disaster or life-threatening emergency.

SAR missions are usually managed cooperatively by the law enforcement and fire service agencies having jurisdiction. Missions may include technical search and rescue operations due to structural or other infrastructure collapse, land and water-based search and rescue operations with and without detection canine assets, and air-based search and rescue operations.

Responders may face additional difficulties or hindrances after a disaster because of extensive damage to the local infrastructure resulting in environmental safety and health hazards. Cascading events may include fire and electrical hazards, unstable foundations or structures, confined spaces, rapidly rising waters, wildlife encounters, and exposure to biohazards, toxins and blood-borne pathogens. Safety of responders and victims may be further impacted by weather conditions and civil unrest.

ASSUMPTIONS

Natural and man-made disasters and/or or acts of terrorism may create the need for structural collapse search and rescue as well as wide area search operations.

People will be lost, injured or killed while outdoors, requiring SAR response.

Access to damaged sites and/or wilderness locations may be limited and initially accessible only by air or water.

Existing search and rescue personnel and equipment within Boone County should be adequate to deal with most emergency situations.

Large numbers of spontaneous volunteers will respond to assist with SAR operations and will require coordination and management.

Responses can be supplemented with personnel and equipment as needed through current mutual aid agreements and plans.

State, federal, and private organizations can provide additional resources when needed.

CONCEPT OF OPERATIONS

GENERAL

In accordance with federal mandates, management of local disasters and emergencies will be initiated and conducted using the concepts and principles of the National Incident Management System (NIMS). On-scene management and coordination of responses will utilize the Incident Command System (ICS).

The search and rescue activities described in this annex are an extension of normal day-to-day activities and deal only with those situations that could completely exhaust all available resources.

ESF-9 will be coordinated by representation from one or all energy providers involved in the incident. Entities with ESF-9 responsibilities will provide liaisons to the EOC, if activated, to form an ESF-9 coordination group. Liaisons may locate to, and operate from, the EOC, or may retain a virtual presence with the EOC. The ESF-9 liaison(s) will coordinate search and rescue resource management, maintain situational awareness, and provide information to the EOC regarding response and recovery efforts.

ESF-9 will prioritize, allocate and task assets in coordination with the other ESFs to support the disaster response and recovery efforts. Priorities will continually be reassessed to develop strategies and address the most critical needs.

Local resources will be used first before outside assistance is requested from mutual aid, the state and/or federal government. The first resources to be identified will be those that are under the control of, or are readily available to, the County and municipal governments.

The EOC will not interfere with the internal operations of the involved agencies but will monitor the situation and provide support as requested.

Mutual aid resources will remain under the authority of their home agencies but will be mission assigned by ESF-9 in the EOC and utilized on site by the Incident Commander.

SAR operations in unincorporated areas of Boone County and within municipal jurisdictions are generally managed as joint operations under unified command of the jurisdictional fire and law agencies. A situation may first be brought to the attention of law enforcement, or fire or EMS personnel. Ultimately, all local public safety agencies will work together to conduct an appropriate search.

Support agencies may include the Missouri State Highway Patrol, the MSHP Water Patrol Division, the MO National Guard, the Civil Air Patrol, and Missouri Task Force 1.

All fire agencies in Boone County can perform search and rescue operations, though to varying levels of capability. BCFPD, SBCFPD, and CFD have equipment and personnel trained to search both on land and water, and in environments requiring technical rescue capabilities.

WIDE AREA SEARCH

Wide area search conducted in Boone County will include data collections to include global positioning system (GPS) track logs and waypoints. The standard building and victim search markings located in Appendix 3 will be used. Just-in-time training for both data collection and markings will be provided to searchers by trained personnel.

TECHNICAL RESCUE

BCFPD, SBCFPD and CFD all maintain equipment and trained personnel to handle low-angle, high-angle, trench, confined space and water rescue.

BCFD can provide the additional capabilities of MO-TF 1 which includes an extensive cache of equipment that may be used locally, regionally or statewide for situations that exceed the capabilities of daily operations.

US NATIONAL GRID (USNG)

Boone County operations will utilize the USNG, a nationally recognized grid reference system that quickly enables users to identify and communicate geographic areas or specific locations. USNG creates a nationally consistent system of “language of location” that is seamless across jurisdictional boundaries. It provides an unambiguous way to describe locations when the end-user is operating either in an area away from the established road network, or in an area impacted by a natural disaster where road signs have been destroyed.

USNG is largely intended for positional reporting and ground operations but can also be used for aggregating data to display its distribution over a given geographic area. Since it is a uniform and continuous grid, it is well-suited for summarizing point data over a large area for display on maps or mapping systems.

USNG is used by FEMA in applications for Urban Search & Rescue, preliminary damage assessments (PDA), and Disaster Survivor Assistance Teams. It is also used in mapping products to display concentrations of observed damage and applicants for individual assistance (IA).

See Appendix 1 for further information regarding the USNG system.

ASSIGNMENT OF RESPONSIBILITIES

PRIMARY RESPONSIBILITIES

The agencies with primary responsibility to this plan are tasked with the following actions:

- Prioritization, allocation and/or tasking of search and rescue assets in support of disaster relief and recovery efforts.
- Providing liaison(s) and point of contact for ESF-9 at the EOC.
- Maintaining records of costs for supplies, resources and man-hours used in response to the disaster event.

- Maintaining standard operations guidelines (SOGs) that address search and rescue responsibilities and needs.
- Maintaining lists of potentially available search and rescue resources.
- Maintaining current mutual aid agreements, memoranda of understanding, and contractual resources to support disaster search and rescue needs.

Boone County Sheriff's Department and municipal law enforcement agencies

Law enforcement personnel will act as incident command or participate in a unified command structure for search and rescue operations. Law enforcement will also provide investigative support, manpower and equipment.

Fire agencies

Fire agencies within the county contribute manpower, equipment and expertise for search and rescue operations, as well as acting as incident command or participating in unified command structure.

SUPPORT RESPONSIBILITIES

Boone County Office of Emergency Management

OEM will activate the EOC if indicated by the extent of the incident.

OEM will coordinate with the primary and support agencies listed in this annex to identify available resources to ensure all incident requirements are met. OEM will facilitate requests for mutual aid, and for state and federal resources, and will make provisions for logistical support for incident assets.

OEM will collect and disseminate information about, and in support of, the incident; OEM will gather situational information regarding resources, status of infrastructure, evacuation routes, etc., and will coordinate with the PIO(s)/JIC to disseminate pertinent information to the public.

OEM will also be responsible for gathering cost information from resource providers to prepare for potential declaration of disaster.

OEM will coordinate recovery efforts through the collection and dissemination of information, coordination of resource logistics and the facilitation of inter-governmental/departamental communication. The EOC will be the focal point for triage and prioritization decisions regarding the restoration of critical services and infrastructure and providing emergent support to residents and businesses.

GIS/IT

Boone County IT and GIS will provide mapping and technological capabilities in support of the EOC and the incident in general.

Public Works

Public works agencies may be tasked with provision of heavy equipment procurement and operation to support the incident.

EMS agencies

EMS assets provide medical support for potential victims, as well as force protection for operational personnel.

State Agencies

The Civil Air Patrol has fixed wing air assets that can be used for visual search, for aerial video and still photography, to support/enhance radio communication capabilities, and to transport search personnel and equipment.

The MSHP can provide boat, helicopter, fixed-wing and dive resources, as well as personnel to provide standard law enforcement capabilities.

MO-TF1 can provide capabilities that include collapsed structure, wide area, swiftwater and canine assisted search. MO-TF1 also maintains a helicopter search and rescue team in coordination with MO National Guard air assets.

DIRECTION AND CONTROL

Boone County government, response agencies, and the municipalities within the county have adopted the National Incident Management System (NIMS) and the Incident Command System (ICS) as the standard for incident response and management.

ESF-9 activities and missions will be coordinated by the ESF-9 representative or coordination group, with the supporting and assisting agencies retaining administrative direction and control over their resources. Coordination will be established with the EOC (if activated) and/or IC to prioritize and develop strategies and missions for response and recovery.

Priorities will continually be reassessed to develop strategies and address the most critical needs.

During multijurisdictional incidents involving search and rescue, in compliance with NIMS, a unified command structure will be established in which agencies work together through a designated Incident Commander at a single Incident Command Post (ICP) to establish a common set of objectives and strategies, and a single incident action plan.

CONTINUITY AND SUCCESSION

Lines of succession and continuity of operations plans will be maintained by each department or agency.

Records vital to the continuity of the ESF-9 functions are duplicated and stored at alternate locations.

ADMINISTRATION AND LOGISTICS

Specific operating procedures and protocols are maintained by the participating organizations.

Facilities and points of contact are maintained in the EOP Contact and Resource Guide

Mutual aid agreements, memoranda of understanding and contractual resource lists regarding transportation operations are maintained within individual agencies.

Procedures for use of forms, compiling information, and providing data to the EOC are in the EOC SOG.

The EOC will provide support and resources at the request of the incident commander.

Supply requisitions/resource requests will be made through normal channels as much as possible but will be made through the EOC when necessary, coordinated by ESF-7 Logistics. Unusual expenditures will be directed to the Emergency Management Director and coordinated with the jurisdictional purchasing agents as per documented purchasing procedures

Each agency will track costs and personnel hours associated with the disaster to provide to OEM for disaster declaration activities. Accurate records of hours worked, and supplies used must be reported to the EOC for use

in determining the total cost of the disaster. All actions taken must be recorded as they are essential for future planning and mitigation, response and recovery, and training and exercise.

Communications for this function will be provided as outlined in the ESF-2 Communications annex of this plan.

APPENDICES

Appendix 1: US National Grid (USNG)

Appendix 2: Relative Urgency Rating (RUR)

Appendix 3: Search Markings

ESF-9 APPENDIX 1: US NATIONAL GRID (USNG)

US National Grid (USNG) Coordinates: *World wide context.*

Information Sheet 2/1 in this series.

FGDC-STD-011-2001

From www.fgdc.gov/usng

The example below locates the Jefferson Pier at USNG: 18S UJ 2337 06519.

U.S. National Grid
100,000-m Square ID
UJ
43 00
UH
Grid Zone Designation
18S

A USNG value has three components.

Some maps may give this leading information in a grid reference box.

Grid Zone Designation (GZD):
6° x 8° longitude zone / latitude band.

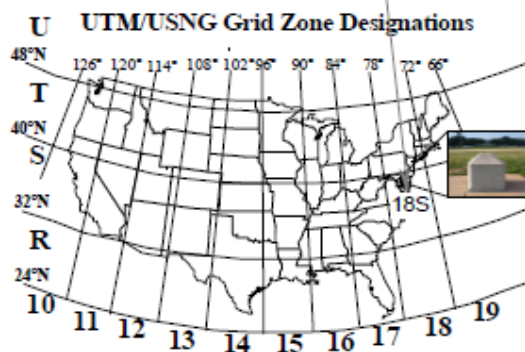
100,000-m Square Identification:

18S UJ 2337 0651

Grid Coordinates:

Read right, then up.*"Read right, then up."*

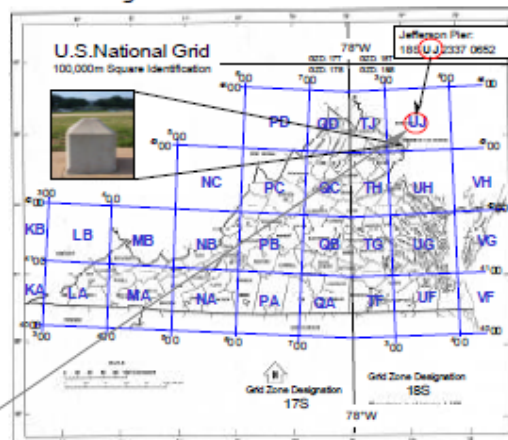
USNG values have three components as seen above. The Grid Zone Designation gives a USNG value world-wide context with 60 longitudinal zones each 6° wide. Zones 10 - 19 cover the conterminous U.S. as seen below left. UTM zones are divided into 8° latitudinal bands. Together these 6° zones and 8° bands compose Grid Zone Designations. Example: 18S



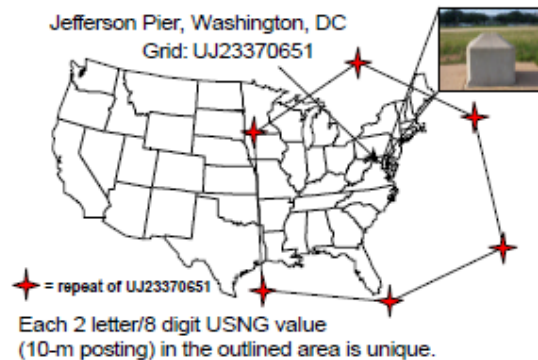
100,000-m Square Identifications

Example: UJ

GZDs are further subdivided into 100-km x 100-km squares with 100,000-m Square Identifications. In this example, the Jefferson Pier is located in UJ. These squares are organized and lettered so they do not repeat themselves but every 18°, which is approximately 1,000 miles in the mid-latitudes. The illustration at right depicts how far one must go before the letters UJ repeat. In the conterminous U.S. this ensures a given value such as UJ 2337 0651 is unique out of the entire state it is located in - as well as all surrounding states.



The Power of Truncated USNG Values

Jefferson Pier, Washington, DC
Grid: UJ23370651

Each 2 letter/8 digit USNG value
(10-m posting) in the outlined area is unique.

In general, people in a local community may use the grid coordinates alone - for example: 233 065. The same numbers recurs about every 60 miles but normally that will not cause a problem when the general location is understood. This is similar to the way you tell someone only the last digits of a phone number when the area code is obvious. If there is a possibility of confusion include the letter pair also - for example: UJ 233 065. A letter pair recurs about every 1000 miles so even in a disaster relief effort there should be no other point with those coordinates nearby. A complete USNG reference such as 18S UJ 233 065 is nationally and globally unique. Typically a GPS receiver or other electronic device requires a complete USNG reference since unlike a human it does not intuitively understand the general location from context. You should always give a complete USNG reference whenever abbreviated coordinates might not be clear or when listing them on letterhead, a business card or advertisement.

Reading US National Grid (USNG) Coordinates: "Read right, then up."

Information Sheet 2/2 in this series.

FGDC-STD-011-2001

From www.fgdc.gov/usng

The example below locates the Jefferson Pier at USNG: 18S UJ 23371 06519.

U.S. National Grid
100,000-m Square ID
UJ
49 00
UH
Grid Zone Designation
18S

A USNG value has three components.

Some maps may give this leading information in a grid reference box.

Grid Zone Designation (GZD):
6° x 8" longitude zone / latitude band.

100,000-m Square Identification:

18S UJ 2337 0651

Grid Coordinates:

Read right, then up.

"Read right, then up."

- Grid lines are identified by **Principal Digits**. Ignore the small superscript numbers like those in the lower left corner of this map.

Reading USNG Grid Coordinates.

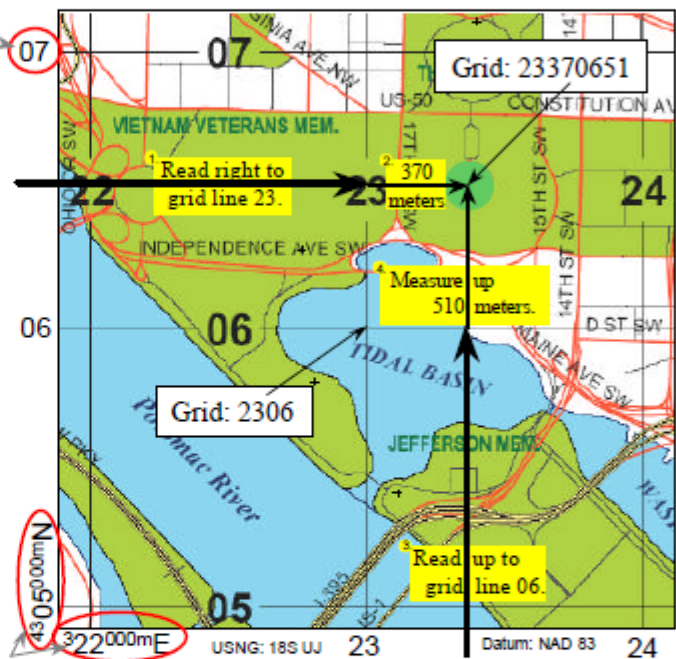
- Coordinates are always given as an even number of digits (i.e. 23370651).

- Separate coordinates in half (2337 0651) into the easting and northing components.

¹ Read right to grid line 23. ² Then measure right another 370 meters. (Think 23.37)

³ Read up to grid line 06. ⁴ Then measure up another 510 meters. (Think 06.51)

Grid:	Point of Interest:	
228058	FDR Memorial:	+
231054	George Mason Memorial:	+
2338 0710	Zero Milestone:	+
2275 0628	DC War Memorial:	+
222065	Lincoln Memorial:	+



UTM numerical format.

Ignore the small UTM superscript numbers that are provided for reference purposes. UTM numerical values are best suited for determining direction and distance as in surveying. USNG alpha-numeric values are best suited for position referencing because they can be given as only grid coordinates in a local area and with only the required precision for a particular task.

Users determine the required precision. These values represent a point position (southwest corner) for an area of refinement.

Four digits:	23 06	Locating a point within a 1,000-m square.
Six digits:	233 065	Locating a point within a 100-m square (football field size).
Eight digits:	2337 0651	Locating a point within a 10-m square (modest size home).
Ten digits:	23371 06519	Locating a point within a 1-m square (man hole size).

A modest size home can be found or identified in a local area with only an 8-digit grid.

Complete USNG value: 18S UJ 2337 0651 - Globally unique.
Without Grid Zone Designation (GZD): UJ 2337 0651 - Regional areas.
Without GZD and 100,000-m Square ID: 2337 0651 - Local areas.

This illustrates how nationally consistent USNG coordinates are optimized for local applications. They serve as a universal map index value in a phone or incident directory for field operation locations. Unlike classic atlas grids (i.e. B3), these can be used with any paper map or atlas depicting the national grid and in web map portals such as the Washington, DC GIS (<http://dcgis.dc.gov>).

They can also be used in consumer GPS receivers to directly guide you to the location. This is especially beneficial at night, in heavy traffic, or major disasters when street signs are missing.



Point of Interest	Street Address	USNG Grid:	Telephone:
Subway Sandwich & Salads	2030 M St., NW	18S UJ 2256 0826	(202) 223-2587
Subway Sandwich & Salads	430 8th St., SE	2698 0567	547-8200
Subway Sandwich & Salads	3504 12th St., NE	2740 1120	526-5999
Subway Sandwich & Salads	1500 Benning Rd, NE	2815 0757	388-0421

Id: 20080420-USNGInstrucl-No2, page 2 of 2

ESF-9 APPENDIX 2: RELATIVE URGENCY RATING (RUR) FACTORS

RELATIVE URGENCY RATING FACTORS

<u>Factor Profile</u>	<u>Factor Value Subject</u>
AGE	
Very young	1
Very old	1
Age factor a moderate concern	2
Age factor a minimal concern	3
MEDICAL CONDITION	
Known injury or illness	1
Suspected injury or illness	2
Healthy	3
Known fatality	3
NUMBER OF SUBJECTS	
One alone	1
More than one (separation suspected)	2
More than one (separation not suspected)	3
WEATHER PROFILE	
Existing hazardous weather	1
Predicted hazardous weather, 8 hours or less	1
Predicted hazardous weather, more than 8 hours	2
No hazardous weather predicted	3
EQUIPMENT/RESOURCES PROFILE	
Inadequate for environment	1
Questionable for environment	2
Adequate for environment	3
SUBJECT EXPERIENCE PROFILE	
Not experienced, does not know area	1
Not experienced, knows area	2
Experienced, not familiar with area	2
Experienced, knows area	3
TERRAIN AND HAZARDS PROFILE	
Known hazardous terrain or other hazards	1
Few hazards or terrain somewhat hazardous	2
No hazards or terrain not hazardous	3
HISTORY OF INCIDENTS IN THIS AREA	
Yes, very recent history of similar incidents in the area	1
Yes, somewhat recent history of similar incidents in the area	2
No history of similar incidents in the area	3

TOTAL: _____

Response to Assessment

Note: The **LOWER THE VALUE** of each factor and the sum of all factors, the **MORE URGENT** the situation.

While a factor sum can be obtained with this assessment tool, it is important to consider other factors that can affect the relative urgency level, such as considerable elapse time from when the subject was reported missing and the political sensitivity.

APPROPRIATE RESPONSE TO URGENCY RATING

Factor Sum

08 – 12

13 – 18

19 – 24

Response

Emergency Response

Measured Response

Evaluation and Investigation

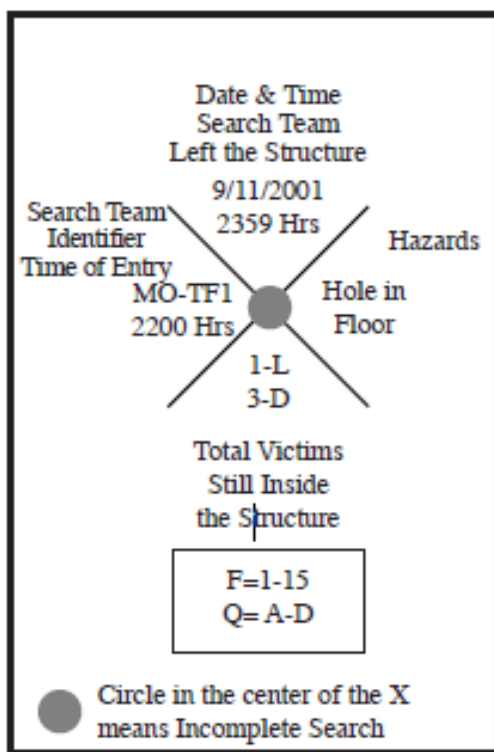
Emergency Response: Immediate response of all available personnel including full activation of search and rescue resources.

Measured Response: Focused search of primary area utilizing road patrols, neighborhood canvassing, K-9s, and air support.

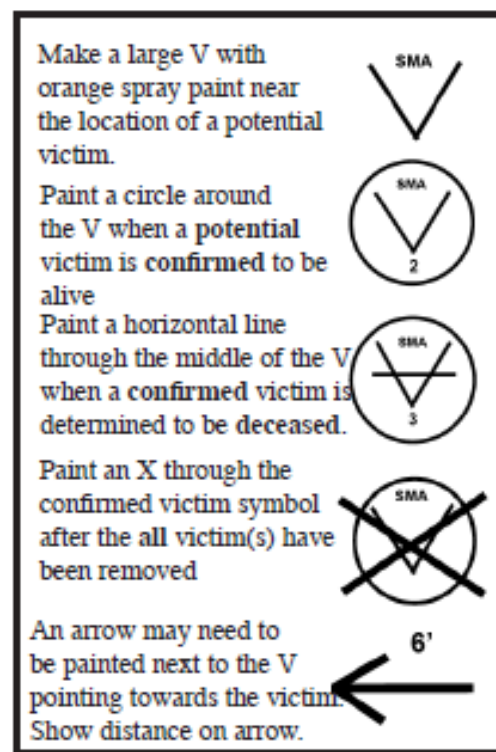
Evaluation Response: Continued investigation to determine the viability of a physical search effort.

Note: Children, persons with Alzheimer's or dementia and other high-risk categories qualify for high urgency/emergency response action. Also note that the possibility of a "bastard search" where no victim exists, because the report was inaccurate, or the individual has left the area on his own or has been found by another party – is always present.

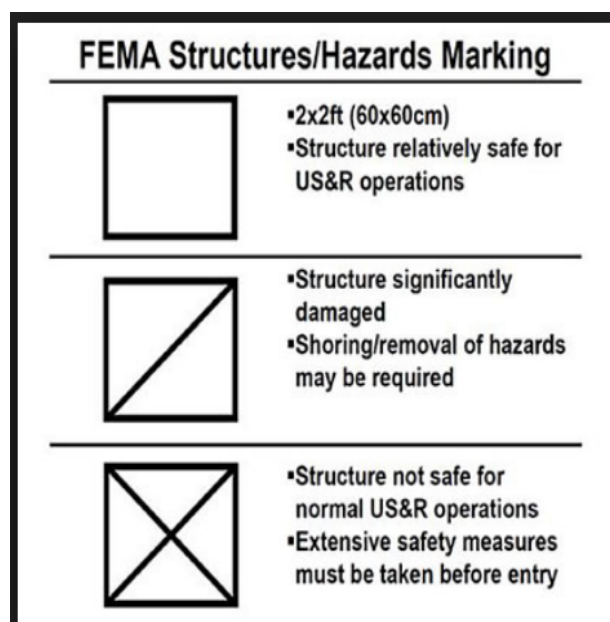
ESF-9 APPENDIX 3: SEARCH MARKINGS



SEARCH MARKINGS



VICTIM MARKINGS



STRUCTURE/HAZARD MARKINGS

ESF-10: HAZARDOUS MATERIALS EMERGENCY PLAN

The Missouri State Emergency Response Commission (MERC) and the Boone County Local Emergency Planning Committee (LEPC) adopt this plan to provide for the protection of the public located within Boone County in the event of a hazardous substance emergency.

This Hazardous Materials Emergency Plan (HMEP) is authorized and regulated under the Emergency Planning and Community Right-to-Know Act (EPCRA) of 1986, which requires local and state governments to plan for hazardous materials emergencies. Missouri State Statutes 292.600-292.625 and subsequent state code of regulations 11CSR10-11.210-250 also require emergency planning by communities for hazardous materials emergencies. Other supporting legislation exists in the Clean Water Act, the Clean Air Act section 112 R, the National Contingency Plan, and Disaster Relief Programs.

Agencies with identified roles and responsibilities in this annex include, but are not limited to:

Ashland City Administrator
Ashland Police Department (APD)
Boone County Commission
Boone County Fire Protection District (BCFPD)
Boone County Joint Communications (BCJC)
Boone County Local Emergency Planning Committee (LEPC)
Boone County Office of Emergency Management (BCOEM)
Boone County Road & Bridge (BCRB)
Boone County Sheriff's Office (BCSO)
Boone Hospital Emergency Medical Services (BHCEMS)
Centralia City Administrator
Centralia Fire Department (CEFD)
Centralia Police Department (CEPD)
City of Columbia - City Manager
Columbia/Boone County Department of Public Health and Human Services (CBCDPHHS)
Columbia Fire Department (CFD)
Columbia Regional Airport Public Safety (COU APS)
Columbia Police Department (CPD)
Columbia Public Works
Hallsville City Administrator
Hallsville Police Department (HPD)
Missouri Department of Health and Senior Services (DHSS)
Missouri Department of Natural Resources (DNR)
Missouri Dept. of Transportation (MODOT)
Missouri State Highway Patrol (MSHP)
Southern Boone County Fire District (SBCFPD)
State Emergency Management Agency (SEMA)
Sturgeon City Administrator
Sturgeon Police Department (SPD)
University Hospital Emergency Medical Services (UHC EMS)

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RECORD OF CHANGES

Revision Date	Revision Description	Page	Author
101917	Added record of changes; corrected error in Appendix 4 title	2; 38	Sherril Gladney
013118	Changed header formats to match the rest of the EOP		Sherril Gladney
082119	Added Direction and Control statement; Added Continuity and Succession Statement; added Administration and Logistics statements	13;14; 18	Sherril Gladney
100919	Changed 11 instances of Boone County Public Works (BCPW) to Boone County Road & Bridge (BCRB); Changed Consolidated Water Supply #2 to Consolidated Water Supply #1	48	Sherril Gladney
051820	Replaced Tier II information and maps with most recently reported; Replaced Table of Contents; corrected minor typos		Sherril Gladney
April 2021	Replaced Tier II information and maps with most recently reported information; Corrected hazmat team typings	371-372; Appendices 1,2,3 and 12	Sherril Gladney

PURPOSE

The HMEP has been prepared by the LEPC to meet both Federal and State statutory planning requirements and to provide for enhanced preparedness to respond to incidents involving hazardous chemicals.

The primary purpose of this plan is to define the framework and coordination to efficiently respond to hazardous materials emergencies within Boone County to protect lives, property and the environment. Depending upon the magnitude of an incident, this plan or portions of it will be implemented to coordinate actions, conserve resources and expedite mitigation of the incident.

This plan has been specifically designed to serve as an annex to the Boone County Emergency Operations Plan (BCEOP) to supplement that document. In that regard, this plan is consistent with existing authorities, planning assumptions, systems and procedures.

OBJECTIVES

The objectives of the Boone County Hazardous Materials Emergency Plan are to:

- Describe courses of action that will minimize hazards to life and reduce adverse impacts upon the environment from the release of a hazardous material.
- Document the methodology to provide a coordinated effort by local agencies, mutual aid assets, state and federal resources, and private industry in response to a hazardous materials emergency.
- Identify locations and types of reportable amounts of hazardous materials within the county.

- Identify emergency response organizations, equipment and other resources that can be utilized during a hazardous materials incident.
- Provide a mechanism to integrate community and facility response procedures.

SITUATION AND ASSUMPTIONS

SITUATION

Boone County is located midway between St. Louis and Kansas City along Interstate 70 (I70). Land area - 685.43 square miles; elevation - 758 feet above sea level. The central area of Boone County is comprised of the City of Columbia which constitutes 53.1 square miles, with a population density of 1899 people per square mile. The remaining land resides in the county, which is also home to the municipalities of Ashland, Centralia, Hallsville, Harrisburg, Hartsburg, Huntsdale, McBaine, Pierpont, Rocheport, and Sturgeon. Boone County is surrounded by Randolph County to the north, Audrain on the northeast, Callaway on the east, Cole on the south, Moniteau on the southwest, and Cooper on the west, and Howard on the northwest.

Transportation Routes:

- Two (2) major highways – I70 (east-west) and Highway 63 (north-south) - traverse through Boone County and are common routes for the transportation of hazardous substances.
- There are three (3) railroads running through the county - the Columbia Terminal, and the Norfolk Southern and Kansas City Southern Railroad companies which serve the northern portion of the county. The northern railroads may transport cars containing hazardous or extremely hazardous substances.
- There is one (1) commercially navigable river in the county - the Missouri River.
- One (1) airport - Columbia Regional Airport - serves Boone County and central Missouri.

Pipelines:

There are three (3) natural gas lines and one (1) major petroleum pipeline that run through Boone County. In addition, there is a network of pipelines that carry natural gas and other materials throughout the county.

Facilities:

There are many fixed facilities in Boone County that use, produce and/or store hazardous materials. There are a small number of facilities in Boone County that use or store extremely hazardous substances (EHS). These lists are found in Appendices 1-3. The University of Missouri operates a nuclear-powered research reactor that stores nuclear waste.

Population:

- Boone County total -180,463
- Ashland - 3,907
- Centralia - 4,213
- Columbia – 123,204

- Hallsville – 1771
- Harrisburg – 410
- Hartsburg – 86
- Huntsdale – 21
- McBaine – 10
- Pierpont - 77
- Rocheport – 244
- Sturgeon – 990

(Source: U.S. Census Bureau, July 1, 2019 estimates)

The LEPC, the local fire departments and the MERC receive Tier II reports from facilities that have hazardous substances as required by EPCRA, Section 302 (c). Review of these Tier II reports indicate that several chemical hazards exist in Boone County.

The community has appointed a Community Emergency Coordinator which, by default is the current LEPC chairperson. The coordinator's name and contact information will be on file with the State Emergency Management Agency (SEMA) and the Boone County Office of Emergency Management.

ASSUMPTIONS

Hazardous materials incidents of varying degrees of severity will occur within the Boone County jurisdiction and may occur with little to no warning. Such an incident can occur at a fixed facility, on public or private property, on a transportation route or any combination of the above.

Existing fire and rescue personnel and equipment within Boone County should be adequate to deal with most emergency situations.

Responses can be supplemented with personnel and equipment as needed through current mutual aid agreements and plans.

State, federal, and private organizations will respond when needed.

Boone County is home to numerous long term and residential care facilities, group homes, and independent supported living sites, as well as several hospitals. Evacuation of these facilities in response to a hazardous materials incident would present some challenges.

Protective actions for the general population may include in-place sheltering and/or evacuation. Many of the residents in the risk area will evacuate to private homes or shelters of their own choosing.

CONCEPT OF OPERATIONS

GENERAL

In accordance with federal mandates, management of local disasters and emergencies will be initiated and conducted using the concepts and principles of the National Incident Management System (NIMS). On-scene management and coordination of responses will utilize the Incident Command System (ICS).

The hazardous materials activities described in this annex are an extension of normal day-to-day activities and deal only with those situations that could completely exhaust all available resources.

ESF-10 will be coordinated by representation from one or all hazardous materials response providers involved in the incident. Entities with ESF-10 responsibilities will provide liaisons to the EOC, if activated, to form an ESF-10 coordination group. Liaisons from primary and support agencies may locate to, and operate from, the EOC, or may retain a virtual presence with the EOC. The ESF-10 liaison will coordinate hazardous materials response resource management, maintain situational awareness, and provide information to the EOC regarding response and recovery efforts.

ESF-10 will prioritize, allocate and task assets in coordination with the other ESFs to support the disaster response and recovery efforts. Priorities will continually be reassessed to develop strategies and address the most critical needs.

Any or all the participating agencies/organizations identified in this plan may be called upon in response to a hazardous material incident. Each agency/organization has the responsibility to develop and maintain Standard Operational Guidelines (SOGs) for task assignments as specified in this plan and elsewhere in the Boone County Emergency Operations Plan.

The protection of the health and welfare of the residents of Boone County must be managed at the local level. There are resources in Boone County for respond to hazardous materials incidents. Depending upon the magnitude of the incident, assistance may be provided from adjoining localities, mutual aid agreements, area and/or regional hazmat teams, the private sector, and state and federal government. Local resources will be used first before outside assistance is requested. The first resources to be identified will be those that are under the control of, or are readily available to, the County and municipal governments.

The EOC will not interfere with the internal operations of the involved agencies but will monitor the situation and provide support as requested.

Mutual aid resources will remain under the authority of their home agencies but will be mission assigned by ESF-10 in the EOC and utilized on site by the Incident Commander.

In accordance with OSHA regulation 29CFR 1910.120 and EPA regulation 40CFR 311, all hazardous materials emergency responses will be managed utilizing the NIMS Incident Command System. Multi-agency or multi-jurisdictional events will be under the command and control of a Unified Command.

NOTIFICATION AND ALERTING

Timely, informative and accurate notification of a hazardous material emergency is critical for effective emergency response operations and community safety.

Emergency operations begin at the level of the facility with internal protocols and procedures. The facility should call 911 as soon as it is ascertained that a true emergency exists. The Boone County Joint Communications Center receives the 911 call and characterizes the call utilizing the automated Priority Dispatch ProQA software. The appropriate personnel and apparatus are dispatched per standard operating procedure, and are provided with information via radio regarding substance, release status, injuries, etc. The computer automated dispatch (CAD) software sends automated messages to pre-determined authorities by phone, text and email. Dispatch personnel will also contact any other agencies/persons as requested by the IC. BCJC sends out text, email and phone notifications to the public utilizing the RAVE alert system, and media and social media are utilized as appropriate to disseminate public notifications.

Section 304 of EPCRA requires the immediate notification of the community emergency coordinator and the state coordinating agency when a release of an extremely hazardous substance or hazardous chemical in an amount above the Reportable Quantity (RQ) occurs. Boone County response organizations must also immediately notify the Missouri Department of Natural Resources of any hazardous materials emergency that meets Level 2 or Level 3 criteria (see below). Besides local notifications, federal guidelines require that the National Response Center (NRC) also be notified.

Specific information required in the notification includes substance name, method of release, health effects, medical attention and protective actions taken. The Chemical Emergency Notification Report (Appendix 6) should be used to gather the information needed for these notifications:

- Local 24-hour contact - Boone County Joint Communications Dispatch Center - 911.
- Missouri Dept. of Natural Resources State 24-hour contact: 573-634-2436
- National Response Center: 800-424-8802

More emergency assistance contact information can be found in Appendix 8 of this plan.

RESPONSE AND HAZARD IDENTIFICATION

A release or threatened release of hazardous material can result in serious and quickly escalating threats to the public. The first information regarding a release is typically obtained via a 911 call to the Boone County Joint Communications (BCJC). BCJC personnel process hazardous materials emergency 911 calls utilizing the Fire Priority Dispatch protocol developed by the National Academies of Emergency Dispatch (NAED) and approved by the BCJC Committee. Based on the jurisdiction and nature of the emergency, fire and EMS units are dispatched to the scene to perform hazard analysis, victim rescue and treatment, and mitigation of the hazard.

The response agencies of Boone County follow the methodologies of HazMatIQ which, along with the accompanying toolkit, can increase the level of operational proficiency at the engine company level utilizing standard PPE. This response standard can then be augmented as necessary with response from local or regional hazmat resources.

Upon arrival on the scene of a hazardous materials emergency, the ranking fire officer, or his/her designee with local jurisdiction and authority will act as Incident Commander. The Incident Commander should declare a response level according to the response level criteria listed below:

Level 1 – Controlled Emergency Condition

- Incident that can be controlled by the primary first response agencies of a local jurisdiction
- Single jurisdiction and limited agency involvement
- Does not require evacuation, except for the structure or affected facility
- Confined geographic area
- No immediate threat to life, health or property
- EOC likely not activated

Level 2 – Limited Emergency

- Potential threat to life, health or property
- Expanded geographic scope
- Limited evacuation of nearby residents or facilities
- Involvement of one or more jurisdictions
- Limited participation of mutual aid from agencies that do not routinely respond to emergency incidents in the area
- Specialist or technical team is called to the scene
- Combined emergency operation such as firefighting and evacuation, or containment and emergency medical care
- EOC may be partially staffed

Level 3 – Full Emergency Condition

- Serious hazard or severe threat to life, health and property
- Large geographic impact
- Major community evacuation
- Multi-jurisdictional involvement
- State and federal involvement
- Specialists and technical teams deployed
- Extensive resource management and allocation
- Multiple operational periods
- EOC likely to be fully staffed

Determination of the scope of the hazard involves identifying the material involved and its potential impact and containment status. Technical analysis by qualified and approved specialists may be required to determine existing hazards, the anticipated course of the incident and any cascading hazards.

Resources to assist with analysis include local hazmat teams, mutual aid hazardous materials regional resources, and state and federal resources. The Missouri National Guard also houses a Civil Support

Team whose capabilities include sampling and identification of substances, and who may be called by local jurisdictions to augment the Incident Commander's capability for recognizing and identifying a potentially hazardous substance.

State assistance should be requested through the Missouri Department of Natural Resources or SEMA. Federal assistance will be requested by the responding state agency.

Assessment priorities should include:

- Identifying the material involved
- Determining its hazard potential
- Measuring the magnitude of release of material into the environment and potential population affected
- Assessing health impact of the release on emergency workers, the public and environment

The Hazardous Materials Release Form (Appendix 7) may be used to collect this information. Other sources of information that may be used include:

- North American Emergency Response Guidebook (Orange Book)
- NIOSH Pocket Guide to Chemical Hazards
- National Fire Protection Association (NFPA) Handbooks
- USCG Chemical Hazards Response Information System (CHRIS) Manual
- CHEMTREC 800-424-9300
- Safety Data Sheets (SDS) which are filed with the local fire department, LEPC, and MERC
- Hazard simulation models i.e. Computer Aided Management of Emergency Operations (CAMEO) and/or others
- EPA Chemical Profiles (for Extremely Hazardous Substances)
- Wireless Information System for Emergency Responders (WISER)
- Chemical industries or laboratories nearby
- Farm and related industry
- Institutions of higher learning
- Private consultants
- Local and/or state contractors

Meteorology may be significant and should be factored into the assessment. Wind direction, wind speed, precipitation and potential changes in the forecast must be considered to identify at-risk areas and populations, and evacuation needs.

PROTECTIVE ACTIONS

Emergency responders will be tasked with determining protective actions needed in order to protect the public. State and federal resources will generally supplement and complement ongoing local protective action activities. Protective actions typically involve one or more of the following:

- Isolation of the area to prevent exposure to the hazardous material or its effects.
- Sheltering in place inside structures to reduce exposure to the hazardous material in the air; this option may be suitable for releases of short duration.
- Evacuation from the hazardous area. Evacuation is addressed in depth in ESF-1 of the EOP.

Collateral activities related to the population protection may include sheltering and mass care depending on the scope and length of the incident. The American Red Cross is the primary agency for operating shelters. Detailed sheltering and mass care information can be found in ESF-6 of the EOP.

ASSIGNMENT OF RESPONSIBILITIES

The following task assignments relate to hazardous materials emergency management. Additional assignments, responsibilities and authorities are outlined in the Basic Plan of the Boone County Emergency Operations Plan. Every incident begins and ends under the control of the local authority having jurisdiction.

The agencies with primary responsibility to this plan are tasked with the following actions:

- Prioritization, allocation and/or tasking of hazardous materials response assets in support of disaster relief and recovery efforts.
- Providing liaison(s) and point of contact for ESF-10 at the EOC.
- Maintaining records of costs for supplies, resources and man-hours used in response to the disaster event.
- Maintaining standard operations guidelines (SOGs) that address hazardous materials response responsibilities and needs.
- Maintaining lists of potentially available hazardous materials response resources.
- Maintaining current mutual aid agreements, memoranda of understanding, and contractual resources to support disaster emergency hazardous materials response needs.

PUBLIC SAFETY AND GOVERNMENTAL AGENCIES

Local Emergency Planning Committee

The LEPC was formed in accordance with the Missouri Emergency Planning and Community Right-to-Know Act of 1987. The LEPC is responsible for developing and maintaining the County Hazardous Materials Plan. A list of LEPC members is given in Appendix 9 to this plan. The LEPC will perform the following functions:

- Establish rules by which the LEPC will function.

- Hold scheduled meetings to establish short- and long-range plans regarding the county's Hazardous Emergency Preparedness Program.
- Compile the annual Hazardous Materials Inventory for Boone County based on Tier II reporting.
- Develop and maintain this hazardous materials response plan that provides for timely, effective response by the public and private sector.
- Outline methods and schedules for training and exercises on hazardous materials in coordination with local government officials, schools and available private participants.
- Serve as the point of contact for Community Right-to-Know activities.
- Keep the public notified of all LEPC activities and distribution requirements of the emergency response plan.
- Designate an information officer to receive and process information requests on emergency response plans.

Emergency Management

Coordinate support of a large or long-term incident by:

- Facilitating requests for resources including mutual aid, and regional, state and federal assistance
- Coordinating reimbursement activities in the event of a disaster declaration
- Coordination of a Joint Information Center and release of information to stakeholders and the media
- Maintaining this plan as an annex to the Boone County Emergency Operations Plan

Municipal and County Elected Officials

- Appoint a representative to manage hazardous materials systems, and to report all hazardous materials incidents to the LEPC and other agencies as required by state and federal laws.
- Set policy and adopt budgets to allow administrators with the technical skills and authority to be responsible for incident management in the event of a hazardous materials incident.
- Advise responsible officials to ensure that the best measures will be taken to protect the public, property and the environment.

Municipal and County Attorneys

- Act as legal advisor on items related to public health and safety.
- Assist in resolution of legal problems that may arise due to Title III implementation or specific hazardous materials release incidents.
- Initiate legal action against responsible parties for the release of hazardous substances that violate state and/or federal regulations.

Municipal and County Clerks

- Maintain an accurate and responsive data bank for all virtual information arising from a hazardous materials release incident in/or affecting their jurisdiction.

Boone County Joint Communications

- In conjunction with Incident Command and the EOC, provides timely, reliable and effective warning and emergency information to the public in the event of a hazardous material emergency.
- Public warning, emergency notification, evacuation and shelter in place information can be found in the Basic Plan and ESF-1, ESF-2, and ESF-3 of the Boone County Emergency Operations Plan. Sample alert messages can also be found in the appendices to ESF-3 and in Appendix 13 of this plan.

Fire Departments

- Determine the hazard level of the incident, and direct response operations.
- Establish site security areas and hazard exclusion zones within the hazardous sector(s).
- Determine the nature of the hazardous substance.
- Based on estimates of likely harm, select appropriate options for managing the mitigation effort.

Incident Commander

The Incident Commander directs overall operations including, but not limited to:

- Establishment of an on-scene Command Post.
- Hazard assessment, selection of mitigation concepts and methods, and resolution of conflicts.
- Dissemination of hazard and warning information to both responders and the public.
- Recommendation of evacuation actions in coordination with all agencies involved and discussion with the appropriate officials to assure proper warning, transportation, shelter and care for the evacuees.
- Determining when the emergency has been effectively mitigated and the scene may be turned over to the responsible party or their representative, Missouri DNR, Federal EPA and/or other government agency.
- Conducting a post-incident analysis and critique with input solicited from all involved agencies. Copies of all post-incident reports shall be submitted to the LEPC within 30 days of incident stabilization for review, debriefs, plan modifications and future use in training and exercise programs.

Health and Medical Coordinator

- Coordinate procedures for temporary storage of stabilized hazardous materials and manage legal disposal.
- Provide personnel safety information to the Incident Commander, and if necessary, serve as the site safety officer.

- Provide an environmental analysis of the situation and recommend property, epidemiological and toxicological solutions to deal with the public health issues involved with hazardous materials incidents. In non-fire incidents, the health department representative may serve as an assistant to the Incident Commander.
- Monitor response personnel and public exposures to chemical, biological, and radiological agents.
- Manage the distribution and use of health resources. Allocate medical supplies in short supply.
- Will provide support to the American Red Cross and Salvation Army if emergency shelters are needed.

Emergency Medical Services

- Provide triage, treatment and transport of casualties resulting from the incident.
- Provide a liaison between medical personnel and the Incident Commander.
- Liaise with area hospitals regarding nature of the hazardous substances involved, and procedures for decontamination, handling and care of victims.
- Provide medical force protection for response personnel.
- Medical facility and EMS provider information can be found in ESF-8 of the EOP, as well as in the EOP Contact and Resource Guide.

State and Federal Support

Assistance in hazardous material removal and disposal oversight, technical considerations and funding may be obtained through the Missouri Department of Natural Resources and the U.S. Environmental Protection Agency.

Access to state resources for support during an incident/accident is through the Incident Commander and the EOC, if activated. DNR and/or SEMA will coordinate the provision of state containment resources. The responding state agency will determine if federal assistance is required, and request those resources as needed.

Planning, training and on-site assistance are available through the following state and federal agencies:

- Missouri Emergency Response Commission (MERC)
- Missouri Division of Fire Safety
- State Emergency Management Agency (SEMA)
- Missouri Department of Natural Resources (MDNR)
- Federal Emergency Management Agency (FEMA)
- U.S. Environmental Protection Agency (EPA)
- National Response Center (NRC)
- Missouri Department of Transportation (MoDOT)
- U.S. Nuclear Regulatory Commission (U.S. NRC)

PRIVATE SECTOR

The fixed-facility, transporter, or manufacturer responsible for a spill of a hazardous material is liable for the spill, and is responsible for the cleanup, removal and disposal of contamination. Notification to state and federal agencies is also the responsibility of the spiller.

+Fixed Facilities

- Designate Hazardous Materials Coordinator responsible for assisting in the preparation of this plan and for the preparation of compatible onsite contingency plans and SOGs. The EPCRA Section 302(c) facilities in each community have designated a Facility Emergency Coordinator (FEC) to act as liaison to the Community Emergency coordinator (CEC) in a hazardous materials emergency.
- Notify Boone County Joint Communications in the event of Hazardous Materials Incidents. Provide appropriate information to complete the Chemical Emergency Notification Report (Appendix 6). Also, provide safe route of entry into site for emergency response personnel.
- Provide technical support as requested in the development of off-site risk assessments and contingency planning.
- Provide support to the Incident Commander at the Command Post during an incident.
- Provide personnel, technical expertise and equipment support; and participate in hazardous materials exercises and other training activities.
- Initiate notification of a hazardous substance incident and provide information to the appropriate officials/agencies as specified in the Superfund Amendments and Reauthorization Act of 1986 (SARA).

Pipeline Industry

- Responsible for a plan that outlines the general actions and establishes the policies to be followed in the event of a hazardous substance release incident.
- The company's Hazardous Materials Coordinator will contact each site, direct the company's mitigation activities, and support off-site efforts during any hazardous substance release emergency.
- Provide technical guidance, personnel and hardware to support the comprehensive training and exercise program directed by the LEPC.

Rail and Highway Carriers

- Notify Boone County Joint Communications in the event of a hazardous materials incident. Provide appropriate information to complete the Chemical Emergency Notification Report (Appendix 6). Also, provide safe route of entry into designated staging areas for emergency response personnel.
- Develop a hazardous substance incident emergency response plan.
- Maintain a response capability in the event of a hazardous materials incident involving their stock.

- Provide technical assistance, personnel and resources to the Incident Commander to mitigate incidents involving their stock or property.
- Provide proper identification of all hazardous materials being transported.
- Provide technical expertise, personnel and hardware to support the training and exercise program of the LEPC.
- Provide a list of major hazardous materials commodities shipped and periodically update that list.

DIRECTION AND CONTROL

In accordance with federal mandates, Boone County government, response agencies, and the municipalities within the county have adopted the National Incident Management System (NIMS) and the Incident Command System (ICS) as the standard for incident response and management.

In an emergency or disaster in which the EOC has been activated, an ESF-10 representative will operate from the EOC and coordinate support of hazardous materials mitigation activities including information processing and resource management.

Hazardous materials mitigation activities and missions will be coordinated by the ESF-10 representative or coordination group, with the supporting and assisting agencies retaining administrative direction and control over their resources. Coordination will be established with the EOC (if activated) and/or IC to prioritize and develop strategies and missions for response and recovery. Priorities will continually be reassessed to develop strategies and address the most critical needs.

Initial control at the disaster/emergency site will be established by the local fire service agency who will maintain contact with, and provide information to, the ESF-10 coordinator at the EOC.

Mutual aid resource requests will go through the ESF-4 and ESF-10 coordinators. Responding assets will be mission tasked by the EOC to the local jurisdiction to be utilized as needed. Mutual aid resources will be managed by the EOC and local incident commanders but will retain the administrative oversight of their home agencies.

CONTINUITY AND SUCCESSION

Lines of succession and continuity of operations plans are maintained at the agency or department level.

Records vital to the continuity of the ESF-10 functions are duplicated and stored at alternate locations.

HAZARD ANALYSIS

FACILITY PROFILES

Facilities with reportable quantities of hazardous substances are required to provide information concerning these substances. A complete profile of all facilities that have reported hazardous substance inventories in compliance with EPCRA, Sections 302 & 312 (c) is maintained by the LEPC Chairperson as well as the Missouri Emergency Response Commission.

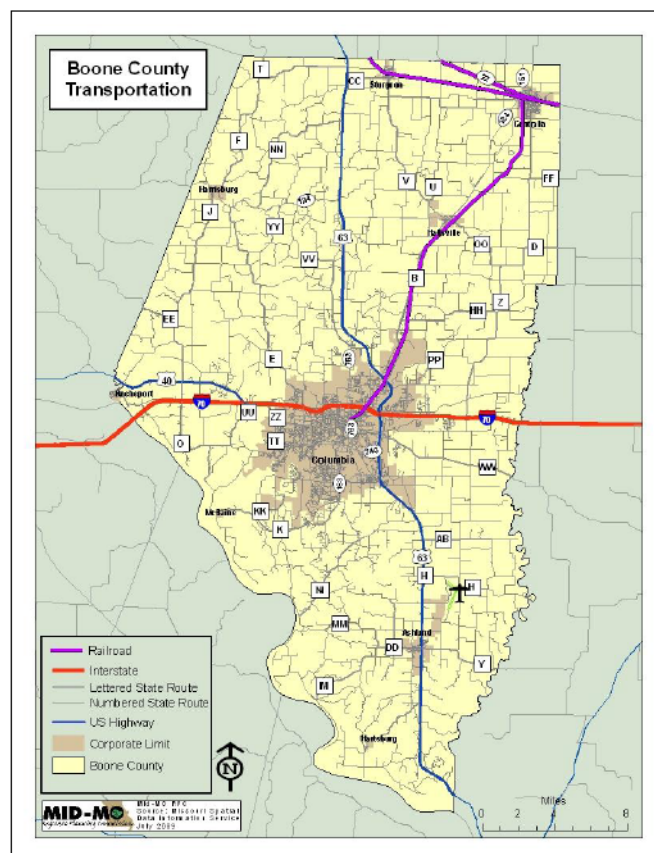
Information contained in these Facility Profiles is found in the Tier II reports filed by each facility and forwarded to the Boone County LEPC. The listing of facilities can be found in Appendix 1 of this plan.

A hazard analysis is updated annually after the deadline for submission of Tier II reports and includes the facility name, address and hazardous substances reported. The hazardous materials threat analysis is also included in the Boone County Hazard Mitigation Plan.

TRANSPORTATION ROUTES

Most hazardous materials transported by highways are petroleum-based products such as gasoline and heating fuels, though other classes of hazardous materials are not precluded from entering and leaving Boone County by road or rail. Major highway routes used to transport hazardous materials through Boone County include Interstate 70, US Highways 40 and 63, and State Highways 763 and 22.

A traffic flow study was performed by members of the LEPC in 2017, the results of which can be found in Appendix 4 of this plan. The next flow study is planned for 2022.



TRAINING

Section 303 (c) (8) of EPCRA, OSHA 29CFR 1910.120 (HAZWOPER) and EPA 40CFR 311 require that those responsible for implementing hazardous materials emergency plans be provided training opportunities that enhance local emergency response capabilities. Employees who participate, or are expected to participate, in emergency response shall be NIMS compliant, and shall be given training in accordance with NFPA Standards 472 and 1072, and/or OSHA regulations (29 CFR 1910.120) for hazmat awareness, operations, technician, specialist and IC levels.

Individuals who teach hazmat training subjects shall have satisfactorily completed a course for presenting the subject matter, such as those offered by the U.S. Fire Academy, FEMA's Emergency Management Institute, the U.S. EPA, the Missouri Division of Fire Safety, or the Missouri State Emergency Management Agency; or they shall have the training and/or academic credentials and instructional experience necessary to demonstrate competent instructional skills and a good command of the subject matter of the courses they are to teach.

The Boone County LEPC will work in conjunction with the Missouri Emergency Response Commission and community leaders to evaluate the hazardous materials training development needs of local emergency personnel. The LEPC will coordinate local training initiatives to ensure consistency with the Hazardous Materials Plans and will maximize training resources available from all levels of government and the private sector.

Information on training can be obtained by contacting the Missouri Emergency Response Commission at 573-526-9241 or 800-780-1014, the State Emergency Management Agency at www.sema.org/training, or the Boone County LEPC Chairperson.

EXERCISES

Section 303 (c) (9) of EPCRA places a requirement on local jurisdictions to establish "methods and schedules for exercising the emergency plan". The Boone County LEPC recognizes the need for integrated exercise programs that will ensure community response agencies and facilities successfully perform their emergency roles and functions in accordance with the Hazardous Materials Emergency Plan.

Boone County LEPC has established a training subcommittee that meets quarterly to plan and coordinate yearly exercises. Exercise planning incorporates local, regional and state public safety agencies and governmental agencies, as well as private industry, hospitals, universities and colleges, and public schools. Planning and execution of exercises and after-action reports follows Homeland Security Exercise and Evaluation Program (HSEEP) guidance and reporting.

An exercise of this plan will be held annually. The LEPC training subcommittee will identify opportunities for, and coordinate, yearly exercises to train potential users of the plan, test the components of the plan, and identify gaps in preparedness, response and mitigation activities.

Recognizing that exercises are intended to build on one another, each one becoming more complex and comprehensive, the intent of the Boone County LEPC is to maintain a progressive exercise program. Basic orientations to the plan lead up to tabletop exercises to practice emergency operations leadership, coordination and decision-making processes in a no fault, no consequence environment. Tabletop scenarios are followed by functional exercises to perform specific components of the plan under simulated emergency conditions. The entire hazardous materials emergency response system is then evaluated by a full-scale exercise.

A real response situation may be counted in lieu of an exercise if an after-action evaluation is performed, and those lessons learned are updated in the plan.

After action evaluation of exercises are used to reveal gaps and weaknesses in preparedness, response and mitigation, and to strengthen response management, coordination and operations. Corrective actions are then taken to improve and refine public safety capabilities.

Record of exercises and after-action reports are maintained by the LEPC and Boone County Office of Emergency Management. Appendix 10 of this plan contains information regarding scheduled exercises and training.

EMERGENCY RESOURCES

Availability of the appropriate emergency resources is imperative for an effective response to a hazardous materials emergency. Resources may be obtained via standard response by Boone County emergency services agencies, from governmental agencies, the private sector, by prewritten and/or emergency contracts, and by utilizing mutual aid. Contacts for hazardous materials response resources are found in the EOP Contact and Resource Guide which is updated on a continual basis. Equipment lists are in Appendix 11 of this plan.

ADMINISTRATION AND LOGISTICS

Specific operating procedures and protocols are maintained by the participating organizations.

Reports and records are to be developed in accordance with established procedures.

Resources and points of contact are maintained in the EOP Contact and Resource Guide

Mutual aid agreements, memoranda of understanding and contractual resource lists are maintained within individual agencies. Finance and liability procedures are outlined in mutual aid agreements, state and federal laws, and local ordinance.

The EOC will provide support and resources at the request of the incident commander.

Supply requisitions/resource requests will be made through normal channels to the extent possible. When necessary, logistical support will be provided by the EOC, coordinated by ESF-7 Logistics. Unusual expenditures will be directed to the Emergency Management Director and coordinated with the jurisdictional purchasing agents as per documented purchasing procedures

Each agency will track costs and personnel hours associated with the disaster to provide to OEM for disaster declaration activities. Accurate records of hours worked, and supplies used must be reported to the EOC for use in determining the total cost of the disaster. All actions taken must be recorded as they are essential for future planning and mitigation, response and recovery, and training and exercise. Procedures for use of forms, compiling information, and providing data to the EOC are in the EOC SOG.

Communications for this function will be provided as outlined in the ESF-2 annex of this plan.

PLAN DEVELOPMENT AND MAINTENANCE

The LEPC developed this Hazardous Materials Response Plan with assistance from the MERC, the SEMA and the Boone County Office of Emergency Management.

The plan will be updated as necessary, but not less than annually. The LEPC chairperson will coordinate the review and update of the plan. Departments, agencies and facilities that maintain appendices and/or procedures that are a part of this plan shall review annually that portion of the plan pertaining to their function.

Updating of the plan will be preceded by a review of its contents and/or an exercise of the plan. Execution of the plan in response to an actual event will be considered as an exercise and will require an after-action report to be submitted to the LEPC chairperson.

Those items which are subject to frequent change and which shall be reviewed annually for possible updating include, but are not limited to:

- Community and facility notification and alerting lists, including identity and phone numbers of response personnel.
- Facilities subject to the provisions of EPCRA, Section 302(c), and the name of the Facility Emergency Coordinator (FEC).
- Facility Hazard Analysis and maps.
- Transportation routes for hazardous materials, including pipelines and railroads.
- Inventories of critical equipment, supplies, and other resources.
- Facility and community-specific functions and procedures.

Names, facility and contact information are in separate documents maintained by - and housed with - the LEPC, the local fire response agencies, the Boone County Office of Emergency Management, and Boone County Public Safety Joint Communications. This information is available to responders and other pertinent stakeholders.

Inventories and agency SOPs and SOGs will be maintained by the individual response agencies.

The chair of the LEPC shall maintain a list of plan holders and ensure changes are sent to all plan holders. Comments, corrections or suggestions on any aspect of this plan should be forwarded to the LEPC Chair (Consult the EOP Contact and Resource Guide for current chairperson contact information).

POLICIES, AUTHORITIES AND REFERENCES

Section 303 (c) (8) of EPCRA, OSHA 29CFR 1910.120 (HAZWOPER) and EPA 40CFR 311

40 CFR Parts 355 and 370 – 2008 Emergency Planning and Community Right-to-Know Act (EPCRA)

SARA Title III – Superfund Amendments and Reauthorization Act of 1986

This HMEP is authorized and regulated under the Emergency Planning and Community Right-to-Know Act (EPCRA) of 1986, which requires local and state governments to plan for hazardous materials emergencies. Missouri State Statutes 292.600-292.625 and subsequent state code of regulations 11CSR10-11.210-250 require emergency planning by communities for hazardous materials emergencies. Other supporting legislation exists in the Clean Water Act, the Clean Air Act section 112 R, the National Contingency Plan, and Disaster Relief Programs.

APPENDICES

APPENDIX 1 - TIER II REPORTING FACILITIES (2020 REPORTING)

APPENDIX 2 - FACILITY EMERGENCY COORDINATORS (2020 REPORTING)

APPENDIX 3 - EHS FACILITY CHEMICALS (2020 REPORTING)

APPENDIX 4 - 2017 TRAFFIC FLOW STUDY

APPENDIX 5 - PIPELINE MAP

APPENDIX 6 - CHEMICAL EMERGENCY NOTIFICATION REPORT

APPENDIX 7 - HAZARDOUS MATERIALS RELEASE FORM

APPENDIX 8 - EMERGENCY ASSISTANCE CONTACTS

APPENDIX 9 - LOCAL EMERGENCY PLANNING COMMITTEE MEMBERS

APPENDIX 10 - TRAINING AND EXERCISE SCHEDULE

APPENDIX 11 - EQUIPMENT AND RESOURCES

APPENDIX 12 - HAZARD MAPS

APPENDIX 13 - MEDIA STATEMENT

ESF-10 APPENDIX 1: TIER II REPORTING FACILITIES**** INDICATES FACILITIES WITH EHS**

ID	Facility Name	Street Address	City
1**	3M Company - Columbia	5400 Route B	Columbia
2	Advanced Turf Solutions - Columbia	4205 1-70 Drive SE	Columbia
3**	Advantage Metals Recycling LLC - Columbia	705 N Proctor Dr.	Columbia
4	All Weather Propane	201 N. Howard Burton	Centralia
5**	American Air Filter	2100 Nelwood	Columbia
6**	American Air Filter	2510 Vandiver Dr.	Columbia
7	American Airlines - AE COU	11300 S. Airport Dr.	Columbia
8**	American Outdoor Brands	1800 N. Route Z	Columbia
9**	AT&T - MO0501	13575 West Highway 40	Rocheport
10**	AT&T - MOA233	7201 Henderson Rd.	Columbia
11**	AT&T - MOK320	7351 ABC Ln.	Columbia
12**	AT&T - USID111846	1 Champions Dr.	Columbia
13**	AT&T - USID111842	1100 South Providence	Columbia
14	Ballenger Propane Inc. (Route Z)	5000 N Route Z	Columbia
15	Ballenger Propane Inc. (Judy School)	11101 E Judy School Rd	Columbia
16	Botner Well	255 W Botner Rd	Columbia
17	Dripping Springs Well	1090 W Dripping Springs Rd	Columbia
18	Gillespie Well	6800 Gillespie Bridge Rd	Columbia
19	Koch Well	8275 W Hwy 40	Columbia
20	McTurnan Well	1800 E Gans Rd	Columbia
21	Route E Well	5475 N Murry Ln.	Columbia
22	Trimble Well	4832A E Meadowlark Ln.	Columbia
23	Bethel Well	1500 N 7th St.	Columbia
24	Sapp Well	5301 Scott Blvd.	Columbia
25	Airport Well	7070 E Route H	Columbia
26	Harmon Well	13330 S Pearman Rd	Ashland
27	Liberty Well	4550 E Liberty Ln.	Ashland
28	South Well	5200 E Dee Woods Rd	Ashland
29	Boone Electric Cooperative	1413 Rangeline St,	Columbia
30	Boone Hospital Center	1600 E. Broadway	Columbia

ID	Facility Name	Street Address	City
31	Boone Quarries - Riggs	1801 West Williams Rd.	Sturgeon
32**	Boone Quarries-West	2510 North Stadium Blvd.	Columbia
33	Boone Quarries - North	6791 N. Hwy VV	Columbia
34	Boone Quarries - East	3101 Creasy Springs Rd.	Columbia
35	Rocky Fork Asphalt	6791 N Hwy VV	Columbia
36	Hwy 63 N Quarry	23400 Hwy 63 S	Hartsburg
37	Casey's General Store #1064	102 S Ogden St	Sturgeon
38	Casey's General Store #1073	103 E Hwy 00	Hallsville
39	Casey's General Store #1387	208 W HWY 22	Centralia
40	Casey's General Store #1004	1011 El Chaparral Ave	Columbia
41	Casey's General Store #1620	2520 Range Line ST.	Columbia
42	Casey's General Store #2070	3009 Paris Rd.	Columbia
43	Casey's General Store #2171	3905 Clark Ln.	Columbia
44	Casey's General Store #1021	500 E Broadway	Ashland
45	Central Concrete - Columbia	2000 Dogwood Ln.	Columbia
46	Central Concrete Company - Ashland	11470 Ashland Industrial Ct.	Ashland
47**	MO-21797_Charter Communications	1510 E. Boone Industrial Dr.	Columbia
48**	Columbia WTP	6581 W. Route K	Columbia
49	Columbia Municipal Power Plant	1501 Business Loop 70 East	Columbia
50	Columbia Energy Center	4902 Peabody Rd.	Columbia
51	Columbia Ready Mix, Plant 9	2600 North Stadium Blvd.	Columbia
52	Columbia Ready Mix, Plant 7	2600 North Stadium Blvd.	Columbia
53	Columbia Ready Mix, Plant 5	2600 North Stadium Blvd.	Columbia
54	Schwan's Home Service - 114340 Columbia	5751 East Hwy 163	Columbia
55	Dana Light Axle Products, LLC	2400 Lemone Industrial Blvd.	Columbia
56**	CenturyLink - Hallsville CO	106 HWY 124 North	Hallsville
57**	CenturyLink - Centralia CO	110 South Robbins St.	Centralia
58**	CenturyLink - Columbia Prathersville CO	Prathersville Rd.	Columbia
59**	CenturyLink - Columbia Bellevue CO	4326 Southview Dr.	Columbia
60**	CenturyLink - Columbia Boone Docs CO	121 Albany Dr.	Columbia
61**	CenturyLink - Columbia CO	625 Cherry St.	Columbia
62**	CenturyLink - Columbia East CO	5104 Mexico Gravel Rd.	Columbia

ID	Facility Name	Street Address	City
63**	CenturyLink - Columbia Highland CO	1001 Southhampton Rd.	Columbia
64**	CenturyLink - Columbia Ice Chalet CO	3412 Ponderosa St.	Columbia
65**	CenturyLink - Columbia Lightcore CO	SE Corner of I-70 and US 63	Columbia
66**	CenturyLink - Columbia Meadowbrook CO	3808 Waco Rd.	Columbia
67**	CenturyLink - Columbia Midway CO	1500 Taliesin Way	Columbia
68**	CenturyLink - Columbia Oakland CO	2007 Sylvan Lane	Columbia
69**	CenturyLink - Columbia Rock Bridge CO	3600 Monterey Dr.	Columbia
70**	CenturyLink - Columbia Smiley CO	1301 Smiley Lane	Columbia
71**	CenturyLink - Columbia Sunrise Hut	7720 East Sunny Vale Dr.	Columbia
72**	CenturyLink - Columbia West CO	20 N Fairview Rd.	Columbia
73	Fabick Cat Columbia	7841 East ABC Ln.	Columbia
74	FedEx Freight, Inc. - COU	5501 Paris Rd.	Columbia
75	Ferrellgas	3901 Waco Rd.	Columbia
76**	Gates Corporation - Columbia	3015 Lemone Industrial Blvd.	Columbia
77	Harry S. Truman Memorial Veterans Hospital	800 Hospital Drive	Columbia
78**	Hawkins WTG - Columbia	1400 E Boone Industrial Blvd.	Columbia
79	Honeywell-Rheochem	6400 N. Brown Station Rd.	Columbia
80**	Hubbell Power Systems - Allen St. Complex	210 N. Allen St.	Centralia
81**	Hubbell Power Systems - East St/Safety Products	1100 East Switzler St.	Centralia
82	Hubbell Power Systems - Wilson St.	303 N. Fullenwider St	Centralia
83	Hy-Vee Gas	2631 Trimble Rd.	Columbia
84	Hy-Vee Gas	3120 W Broadway	Columbia
85	Hy-Vee Gas	501 E. Nifong	Columbia
86	JBS Live Pork Centralia Feed Mill	22701 North March Rd.	Centralia
87	JM Eagle	6500 N. Brown Station Rd	Columbia
88**	Kraft Heinz Company	4600 Waco Rd.	Columbia
89	Level 3 Communications - Columbia	3201 Falling Leaf Ct.	Columbia
90	Lindsey Rentals and Sales Inc.	708 W Sexton Rd	Columbia
91**	Lowe's of Columbia, MO (#0008)	201 Conley Rd.	Columbia
92	Magellan Pipeline Company, LP	5531 Tom Bass Rd.	Columbia
93	Matheson Tri Gas - Columbia	3109 Paris Rd.	Columbia
94	Centralia BP-PC-LP (10064)	803 N. Hwy 151	Centralia

ID	Facility Name	Street Address	City
95	Columbia BP-PC-LP (10051)	2507 North Stadium Blvd.	Columbia
96	Columbia PC/Columbia Read Mix (10051)	2600BN North Stadium	Columbia
97	Machens Ford (10051)	1911 West Worley	Columbia
98**	MFA AgriService - West Liquid Plant - Centralia	22501 N. March Rd.	Centralia
99	MFA AgriService - Centralia	202 N. Jefferson St	Centralia
100	Midway Arms Inc.	5875 W Van Horn Tavern Rd.	Columbia
101	MPC #85	101 E. Nifong Blvd.	Columbia
102	MPC #93	1412 Rangeline	Columbia
103	MPC #94	126 S. Providence Rd	Columbia
104	MODOT-CD-Columbia	4201 Parris Rd.	Columbia
105	CLB Depot	5900 N. Tower Dr.	Columbia
106	Otscon, Inc.	50 N. Rangeline Rd.	Columbia
107**	Centralia Compressor Station	16151 N Route Z	Centralia
108	Panhandle Eastern Pipe Line - Boone County	16151 N Route Z	Centralia
109**	Quaker Manufacturing, LLC	4501 N. Paris Rd.	Columbia
110	Praxair Distribution, Inc.	1804 Burlington St.	Columbia
111	Well #1	19505 Drew Rd.	Centralia
112	Well #2	10206 Jay Jay	Centralia
113	Well #3	22601 N. March Rd. ,	Centralia
114	Well #4	20785 Drew Rd.	Centralia
115	Harg Well # 3	2001 Olivet Rd.	Columbia
116	Murry Well # 4	8230 N State Rd. Z	Columbia
117	Air Park Well # 5	391 N Rangeline Rd.	Columbia
118	Exline Well # 7	11020 E I-70 Drive NE	Columbia
119	PWSD4	14530 N Route U	Hallsville
120	QuikTrip #661	3211 Clark Ln.	Columbia
121	Rusk Rehabilitation Hospital	315 Business Loop 70 West	Columbia
122	Ryder Truck Rental # 0555	3216 Lemone Industrial Dr.	Columbia
123	Safety-Kleen systems, Inc. Columbia	2400 Big Bear Court	Columbia
124**	Schneider Electric	4800 Paris RD	Columbia
125	Service Partners - 1507	5301 Paris Rd	Columbia
126**	Smith and Wesson Brands, Inc.	1800 North Route Z	Columbia

ID	Facility Name	Street Address	City
127**	Southern Glazer's Wine and Spirits of MO-Columbia	3690 Rangeline Rd	Columbia
128	Southern Star Central Gas Pipeline/Columbia Station	5401 South Ben Williams Rd.	Columbia
129**	State Farm Insurance Co.-Columbia Ops Center	4700 South Providence	Columbia
130	Student Transportation of America Columbia	3511 Clark Ln.	Columbia
131**	The Home Depot Store #3001	3215 Clark Ln.	Columbia
132	TruGreen Limited Partnership	5651 East Hwy 163	Columbia
133**	U.S. Cellular - Columbia MTSO	1804 Vandiver Drive	Columbia
134	United Parcel Service - Columbia	2501 Vandiver Dr.	Columbia
135	UPS Freight - Columbia	3301 Paris Rd.	Columbia
136**	United Rentals Branch J16	3215 Paris Rd.	Columbia
137	United States Postal Service- Mid-Mo P&DF	11450 S. Airport Dr.	Columbia
138	MU - Bradford Farm	4968 Rangeline Rd.	Columbia
139**	MU - University of Missouri Campus	180 General Services Building	Columbia
140	MU - South Farm	3600 New Haven Rd.	Columbia
141	MU - Women's and Children's Hospital	404 Keene St.	Columbia
142**	Veritiv	2500 N. Stadium Blvd. 2A	Columbia
143**	Verizon Wireless - Forum (ID:2117929)	1400 Forum Blvd.	Columbia
144**	Verizon Wireless - Yale(ID:2209467)	2201 W Rollins Rd.	Columbia
145**	Verizon Wireless - Old 63 (ID:1768689)	3104 Old Hwy 63 South	Columbia
146**	Verizon Wireless - Cornerstone (ID:1769757)	3301 West Broadway	Columbia
147**	Verizon Wireless - UM Schurz PCS (ID:2015805)	920 S. College Avenue	Columbia
148**	Verizon Wireless - North County (ID:1735930)	3100 Blue Ridge Court	Columbia
149**	Verizon Wireless -UM - Manor House (ID:1769006)	306 Hitt St.	Columbia
150	H town Market	241 Sexton	Harrisburg
151	Spring Mart	500 E. Dripping Springs Rd.	Columbia
152**	Sam's Club #8163	101 Conley Rd.	Columbia
153	FastLane #54 Hinton	520 East Hinton	Columbia
154	FastLane #55 Paris Rd.	2116 Paris Rd.	Columbia
155	FastLane #56 West Blvd.	1013 West Blvd. N.	Columbia
156	FastLane #57 HH	7701 North Roanoke	Columbia

ID	Facility Name	Street Address	City
157	FastLane #58 Ashland	602 East Broadway	Ashland
158	Watlow Electric Manufacturing Company	2101 Pennsylvania Dr.	Columbia
159	Petro Mart #41	5612 East St. Charles Rd.	Columbia
160	Petro Mart #49	5481 East St Charles Rd.	Columbia
161	Petro Mart #43	500 East College Ave	Columbia
162	Petro Mart #44	3300 Falling Leaf Ln.	Columbia
163	Petro Mart #46	2200 West Ash	Columbia
164	Petro Mart #47	601 Scott Blvd.	Columbia
165	Petro Mart #48	3850 North Rangeline	Columbia
166**	Wiese USA	7710 Interstate 70 Dr. SE	Columbia
167	XPO Logistics Freight, Inc. - XCU	4400 Chateau Drive	Columbia

ESF-10 APPENDIX 2 : FACILITY EMERGENCY COORDINATORS

Facility Name	Rep Name	Rep Title
3M Company - Columbia	James Burkhardt	Plant Manager
Advanced Turf Solutions - Columbia	Cindi Johansen	Dekra Customer Service
Advantage Metals Recycling LLC - Columbia	Landon Bott	Regional Environmental Manager
All Weather Propane	Mikal Thornhill	Owner
American Air Filer	Gary Wisner	Third shift supervisor
American Airlines - AE COU	Tracey Miller	Sr. Environmental Chemical Specialist
American Outdoor Brands	John Barton	EHS Manager
AT&T - MO0501	Jeremy McGrue	National EPCRA Manager
AT&T - MOA233	Jeremy McGrue	National EPCRA Manager
AT&T - MOK320	Jeremy McGrue	National EPCRA Manager
AT&T - USID111846	Jeremy McGrue	National EPCRA Manager
AT&T - USID111842	Jeremy McGrue	National EPCRA Manager
Ballenger Propane Inc. (Route Z)	Terri Ballenger Belcher	Office Manager
Ballenger Propane Inc. (Judy School)	Joe Ballenger	President
Botner Well	David Lee	Superintendent
Dripping Springs Well	David Lee	Superintendent
Gillespie Well	David Lee	Superintendent
Koch Well	David Lee	Superintendent
McTurnan Well	David Lee	Superintendent
Route E Well	David Lee	Superintendent
Trimble Well	David Lee	Superintendent
Bethel Well	David Lee	Superintendent
Sapp Well	David Lee	Superintendent
Airport Well	David Lee	Superintendent
Harmon Well	David Lee	Superintendent
Liberty Well	David Lee	Superintendent
South Well	David Lee	Superintendent
Boone Electric Cooperative	Jim Goodnight	Manager of Operations
Boone Hospital Center	Randy Gay	Manager Environmental Health and Safety

Facility Name	Rep Name	Rep Title
Boone Quarries - Riggs	Garth Adkins	Environmental Representative
Boone Quarries-West	Garth Adkins	Environmental Representative
Boone Quarries - North	Garth Adkins	Environmental Representative
Boone Quarries - East	Garth Adkins	Environmental Representative
Rocky Fork Asphalt	Chris Thiltgen	Regulatory Compliance Manager
Hwy 63 N Quarry	Chris Thiltgen	Regulatory Compliance Manager
Casey's General Store #1064	Teri Mason	EPA Compliance Assistant
Casey's General Store #1073	Teri Mason	EPA Compliance Assistant
Casey's General Store #1387	Teri Mason	EPA Compliance Assistant
Casey's General Store #1004	Teri Mason	EPA Compliance Assistant
Casey's General Store #1620	Teri Mason	EPA Compliance Assistant
Casey's General Store #2070	Teri Mason	EPA Compliance Assistant
Casey's General Store #2171	Teri Mason	EPA Compliance Assistant
Casey's General Store #1021	Teri Mason	EPA Compliance Assistant
Central Concrete - Columbia	Mitch Parrish	Chief Operating Officer
Central Concrete Company - Ashland (Ran very little in 2020)	Mitch Parrish	Chief Operating Officer
MO-21797_Charter Communications	Donna Pallister	Authorized Representative
Columbia WTP	Kevin Wiggins	Water Production Manager
Columbia Municipal Power Plant	Christian Johanningmeier	Power Production Superintendent
Columbia Energy Center	Christian Johanningmeier	Power Production Superintendent
Columbia Ready Mix, Plant 9	Garth Adkins	Environmental Representative
Columbia Ready Mix, Plant 7	Garth Adkins	Environmental Representative
Columbia Ready Mix, Plant 5	Garth Adkins	Environmental Representative
Schwan's Home Service - 114340 Columbia	Jared Kemper	VP and General Counsel, Risk & Safety
Dana Light Axle Products, LLC	Bruce Tiejema	Project Manager
CenturyLink – Hallsville CO	David Burk	Regional EHS Mgr
CenturyLink - Centralia CO	David Burk	Regional EHS Mgr
CenturyLink - Columbia Prathersville CO	David Burk	Regional EHS Mgr
CenturyLink - Columbia Bellevue CO	David Burk	Regional EHS Mgr
CenturyLink - Columbia Boone Docs CO	David Burk	Regional EHS Mgr

Facility Name	Rep Name	Rep Title
CenturyLink - Columbia CO	David Burk	Regional EHS Mgr
CenturyLink - Columbia East CO	David Burk	Regional EHS Mgr
CenturyLink - Columbia Highland CO	David Burk	Regional EHS Mgr
CenturyLink - Columbia Ice Chalet CO	David Burk	Regional EHS Mgr
CenturyLink - Columbia Lightcore CO	David Burk	Regional EHS Mgr
CenturyLink - Columbia Meadowbrook CO	David Burk	Regional EHS Mgr
CenturyLink - Columbia Midway CO	David Burk	Regional EHS Mgr
CenturyLink - Columbia Oakland CO	David Burk	Regional EHS Mgr
CenturyLink - Columbia Rock Bridge CO	David Burk	Regional EHS Mgr
CenturyLink - Columbia Smiley CO	David Burk	Regional EHS Mgr
CenturyLink - Columbia Sunrise Hut	David Burk	Regional EHS Mgr
CenturyLink - Columbia West CO	David Burk	Regional EHS Mgr
Fabick Cat Columbia	Greg Trunk	Project Manager
FedEx Freight, Inc. - COU	Brenden Rose	Environmental Engineer
Gates Corporation - Columbia	Sean Maher	Plant Manager
Harry S. Truman Memorial Veterans Hospital	William R. South	Environmental Protection Coordinator
Hawkins WTG - Columbia	Travis Haus	Environmental Specialist (Contractor)
Honeywell-Rheochem	Brett Heuer	Plant Manager
Hubbell Power Systems - Allen Street Complex	Elise Schoonmaker	Environmental Manager
Hubbell Power Systems - East St/Safety Products	Elise Schoonmaker	Environmental Manager
Hubbell Power Systems - Wilson Street	Elise Schoonmaker	Environmental Manager
Hy-Vee Gas	Wade Meyer	Director- Risk Management
JBS Live Pork Centralia Feed Mill	Jerry L. Foster	EHS Manager
JM Eagle	Richard McMenomy	Safety Coordinator
Kraft Heinz Company	Rob Bennett	Plant Manager
Level 3 Communications	David Burk	Regional EHS Mgr
Lindsey Rentals and Sales Inc	Kyle Spry	President
Lowe's of Columbia, MO (#0008)	Bobbi Tenborg	HAZMAT Manager
Magellan Pipeline Company, LP	Susie Hunter	Environmental Compliance Specialist
Matheson Tri Gas - Columbia	James Murphree	Dir. of Environmental Compliance

Facility Name	Rep Name	Rep Title
Centralia BP-PC-LP (10064)	Tracy Barth	Director, EHS
Columbia BP-PC-LP (10051)	Tracy Barth	Director, EHS
Columbia PC/Columbia Read Mix (10051)	Tracy Barth	Director, EHS
Machens Ford (10051)	Tracy Barth	Director, EHS
MFA AgriService - West Liquid Plant - Centralia	Stanley J. Thessen	SER Director
MFA AgriService - Centralia	Stanley J. Thessen	SER Director
Midway Arms Inc	Adam Burks	Safety & Facilities Manager
MPC #85	Jeffrey Ziegler	Officer
MPC #93	Jeffrey Ziegler	Officer
MPC #94	Jeffrey Ziegler	Officer
MODOT-CD-Columbia	Michael Todd	District Safety/Health Manager
CLB Depot	Judd Brown	District Safety Manager
OTSCON, Inc.	Kathy Cowan-Smith	Vice-President
Centralia Compressor Station	Kristin Fritchman	Sr. Environmental Specialist
Panhandle Eastern Pipe Line - Boone Co	Kristin Fritchman	Sr. Environmental Specialist
Quaker Manufacturing, LLC	Cole Knudsen	Plant Director
Piasa Motor Fuels, LLC	Jim Janson	Environmental Engineer
Praxair Distribution, Inc.	Nick Clark	Operations Manager
Well #1	Sherry Creel	Manager
Well #2	Sherry Creel	Manager
Well #3	Sherry Creel	Manager
Well #4	Sherry Creel	Manager
Harg Well # 3	Roger Ballew	District Manager
Murry Well # 4	Roger Ballew	District Manager
Air Park Well # 5	Roger Ballew	District Manager
Exline Well # 7	Roger Ballew	District Manager
PWSD4	Tanner Crane	District Manager
QuikTrip #661	Victoria Hensley	ECA
Rusk Rehabilitation Hospital	Gerald A Hamel	Facilities Management Director
Ryder Truck Rental # 0555	Jenna Tucker	Compliance Coordinator, RFS
Safety-Kleen systems, Inc. Columbia	Greg Van Stechelman	Sr. Environmental Compliance

Facility Name	Rep Name	Rep Title
Schneider Electric	John Halliburton	Plant Manager
Service Partners - 1507	Mason Baziw	Environmental Safety-Compliance Manager
Smith and Wesson Brands, Inc.	Thale Barber	Director, Warehousing and Distribution
Southern Glazer's Wine and Spirits of MO- Columbia	Karen Siebenberger	EHS Project Support
Southern Star Central Gas Pipeline/Columbia Station	Wesley A. Page	Environmental Specialist
State Farm Insurance Company-Columbia Operations Center	Dawn Kiesling	Loss Prevention Specialist
Student Transportation of America Columbia	Suzanne Johnson	Env Manager
The Home Depot Store #3001	Michele M. Albino	Reg for The Home Depot U.S.A., Inc.
TruGreen Limited Partnership	Gary Burry	General Manager
U.S. Cellular - Columbia MTSO	Joshua Laird	Environmental Technician
United Parcel Service - Columbia	Francisco Montilla	Buildings and Systems Engineering Area Manager
UPS Freight - Columbia	Francisco Montilla	Buildings and Systems Engineering Area Manager
United Rentals Branch J16	Jeffrey Walker	Environmental Manager
United States Postal Service- Mid-Mo P&DF	Kenton Maberry	Maintenance Manager
MU - Bradford Farm	Todd Houts	Director, Environmental Health & Safety
MU - University of Missouri Campus	Todd Houts	Dir., Environmental Health & Safety
MU - South Farm	Todd Houts	Director, Environmental Health & Safety
MU - Women's and Children's Hospital	Todd Houts	Dir, Environmental Health & Safety
Veritiv	Phillip Belcher	EHS Manager
Verizon Wireless - Forum (ID:2117929)	Susan Calderon	EPCRA Program Project Manager
Verizon Wireless - YALE (ID:2209467)	Susan Calderon	EPCRA Program Project Manager
Verizon Wireless - OLD 63 (ID:1768689)	Susan Calderon	EPCRA Program Project Manager
Verizon Wireless - Cornerstone (ID:1769757)	Susan Calderon	EPCRA Program Project Manager
Verizon Wireless - UM SCHURZ PCS (ID:2015805)	Susan Calderon	EPCRA Program Project Manager

Facility Name	Rep Name	Rep Title
Verizon Wireless - NORTH COUNTY (ID:1735930)	Susan Calderon	EPCRA Program Project Manager
Verizon Wireless -UM - Manor House (ID:1769006)	Susan Calderon	EPCRA Program Project Manager
H town Market	Regina Peak	Compliance Administrator
Spring Mart	Regina Peak	Compliance Administrator
Sam's Club #8163	David M. Einol	Tier II POC
FastLane #54 Hinton	Catherine Eckler	Transportation Coordinator
FastLane #55 Paris Road	Catherine Eckler	Transportation Coordinator
FastLane #56 West Blvd.	Catherine Eckler	Transportation Coordinator
FastLane #57 HH	Catherine Eckler	Transportation Coordinator
FastLane #58 Ashland	Catherine Eckler	Transportation Coordinator
Watlow Electric Manufacturing Co.	Rebecca Howard	HSE Manager
Petro Mart #41	Grant Eble	President
Petro Mart #49	Grant Eble	President
Petro Mart #42	Grant Eble	President
Petro Mart #43	Grant Eble	President
Petro Mart #44	Grant Eble	President
Petro Mart #46	Grant Eble	President
Petro Mart #47	Grant Eble	President
Petro Mart #48	Grant Eble	President
Wiese USA	Karen Ullrich	Manager

ESF-10 APPENDIX 3 : EHS FACILITY CHEMICALS

ID	EHS Name	Facility Name	Facility Street	Facility City
1	Sulfuric Acid	3M Company - Columbia	5400 Route B	Columbia
2	Lead Acid Batteries (Sulfuric Acid)	Advantage Metals Recycling LLC - Columbia	705 N Proctor Dr	Columbia
3	Sulfuric acid	American Air Filer	2100 Nelwood	Columbia
4	Sulfuric acid	American Air Filer	2510 Vandiver drive	Columbia
5	Sulfuric Acid (Industrial Batteries)	American Outdoor Brands	1800 N. Route Z	Columbia
6	Sulfuric Acid	AT&T - MO0501	13575 West Highway 40	Rocheport
7	Sulfuric Acid	AT&T - MOA233	7201 Henderson Road	Columbia
8	Sulfuric Acid	AT&T - MOK320	7351 ABC Lane	Columbia
9	Sulfuric Acid	AT&T - USID111842	1100 South Providence	Columbia
10	Sulfuric Acid	AT&T - USID111846	1 Champions Drive	Columbia
11	Ammonium Nitrate	Boone Quarries-West	2510 North Stadium Blvd.	Columbia
12	Cast Boosters	Boone Quarries-West	2510 North Stadium Blvd.	Columbia
13	Sulfuric Acid	Centralia Compressor Station	16151 N Route Z	Centralia
14	Sulfuric Acid	Centurylink - Centralia Co	110 South Robbins St	Centralia
15	Sulfuric Acid	Centurylink - Columbia Sunrise Hut	7720 East Sunny Vale Drive	Columbia
16	Sulfuric Acid	Centurylink - Columbia Bellevue Co	4326 Southview Drive	Columbia
17	Sulfuric Acid	Centurylink - Columbia Boone Docs Co	121 Albany Dr.	Columbia
18	Sulfuric Acid	Centurylink - Columbia Co	625 Cherry St	Columbia
19	Sulfuric Acid	Centurylink - Columbia East Co	5104 Mexico Gravel Rd	Columbia
20	Sulfuric Acid	Centurylink - Columbia Highland Co	1001 S Hampton Dr.	Columbia
21	Sulfuric Acid	Centurylink - Columbia Ice Chalet Co	3412 Ponderosa St	Columbia
22	Sulfuric Acid	Centurylink - Columbia Lightcore Co	SE corner I-70/US 63	Columbia
23	Sulfuric Acid	Centurylink - Columbia Meadowbrook Co	3808 Waco Rd	Columbia
24	Sulfuric Acid	Centurylink - Columbia Midway Co	1500 Talisien Way	Columbia
25	Sulfuric Acid	Centurylink - Columbia Oakland Co	2007 Sylvan Land	Columbia
26	Sulfuric Acid	Centurylink - Columbia Prathersville Co	Prathersville Road	Columbia
27	Sulfuric Acid	Centurylink - Columbia Rock Bridge Co	3600 Monterey Dr	Columbia
28	Sulfuric Acid	Centurylink - Columbia Smiley Co	1301 Smiley Land	Columbia
29	Sulfuric Acid	Centurylink - Columbia West Co	20 N Fairview Rd	Columbia
30	Sulfuric Acid	Centurylink - Hallsville Co	106 Hwy 124 North	Hallsville
31	Chlorine	Columbia WTP	6581 W. Route K	Columbia
32	Lead Acid Batteries	Gates Corporation - Columbia	3015 Lemone Industrial Blvd	Columbia

ID	EHS Name	Facility Name	Facility Street	Facility City
33	Formaldehyde	Gates Corporation - Columbia	3015 Lemone Industrial Blvd	Columbia
34	Formaldehyde	Hawkins WTG - Columbia	1400 East Boone Industrial Blvd	Columbia
35	Sulfur Dioxide	Hawkins WTG - Columbia	1400 East Boone Industrial Blvd	Columbia
36	Sulfuric Acid	Hawkins WTG - Columbia	1400 East Boone Industrial Blvd	Columbia
37	Chlorine	Hawkins WTG - Columbia	1400 East Boone Industrial Blvd	Columbia
38	Peroxyacetic Acid	Hawkins WTG - Columbia	1400 East Boone Industrial Blvd	Columbia
39	Sulfuric Acid	Hubbell Power Systems - Allen Street Complex	210 N. Allen Street	Centralia
40	Sulfuric Acid	Hubbell Power Systems - East St/Safety Products	1100 East Switzler St.	Centralia
41	Ammonia	Kraft Heinz Company	4600 Waco Road	Columbia
42	Lead Acid Batteries	Kraft Heinz Company	4600 Waco Road	Columbia
43	Sulfuric Acid	Kraft Heinz Company	4600 Waco Road	Columbia
44	Nitric acid	Kraft Heinz Company	4600 Waco Road	Columbia
45	Lead Acid Battery	Lowe's of Columbia, MO (#0008)	201 Conley Road	Columbia
46	Anhydrous Ammonia	MFA AgriService - West Liquid Plant - Centralia	22501 N. March Road	Centralia
47	Lead-Acid Batteries	MO-21797_Charter Communications	1510 E. Boone Industrial Drive	Columbia
48	Chlorine	MU - University of Missouri Campus	180 General Services Building	Columbia
49	Sulfuric Acid	Quaker Manufacturing, LLC	4501 N. Paris Rd.	Columbia
50	Batteries - Lead-Acid Batteries	Sam's Club #8163	101 Conley Road	Columbia
51	Sulfuric Acid-Pit Batteries	Schneider Electric	4800 Paris Rd	Columbia
52	Lead-Acid Battery, Wet	Smith and Wesson Brands, Inc.	1800 N. Route Z	Columbia
53	Lead	Southern Glazer's Wine and Spirits of MO-Columbia	3690 Rangeline Rd	Columbia
54	Sulfuric Acid in sealed calcium lead batteries UPS	State Farm Insurance Company-Columbia Operations Center	4700 South Providence	Columbia
55	Lead/Acid Batteries	The Home Depot Store #3001	3215 Clark Lane	Columbia
56	Sulfuric Acid	U.S. Cellular - Columbia Mtso	1804 Vandiver Drive	Columbia

ID	EHS Name	Facility Name	Facility Street	Facility City
58	Lead Acid Battery	United Rentals Branch J16	3215 Paris Rd.	Columbia
59	Sulfuric Acid	Veritiv	2500 N. Stadium Blvd 2A	Columbia
60	Lead Acid Batteries	Verizon Wireless - Cornerstone (Id:1769757)	3301 West Broadway	Columbia
61	Lead Acid Batteries	Verizon Wireless - Forum (Id:2117929)	1400 Forum Blvd	Columbia
62	Lead Acid Batteries	Verizon Wireless - North County (Id:1735930)	3100 Blue Ridge Court	Columbia
63	Lead Acid Batteries	Verizon Wireless - Old 63 (Id:1768689)	3104 Old Hwy 63 South	Columbia
64	Lead Acid Batteries	Verizon Wireless - Um Schurz PCS (Id:2015805)	920 S. College Avenue	Columbia
65	Lead Acid Batteries	Verizon Wireless - Yale (Id:2209467)	2201 W Rollins Road	Columbia
66	Lead Acid Batteries	Verizon Wireless -Um - Manor House (Id:1769006)	306 Hitt Street	Columbia
67	Sulfuric Acid	Wiese USA	7710 Interstate 70 Dr. SE	Columbia

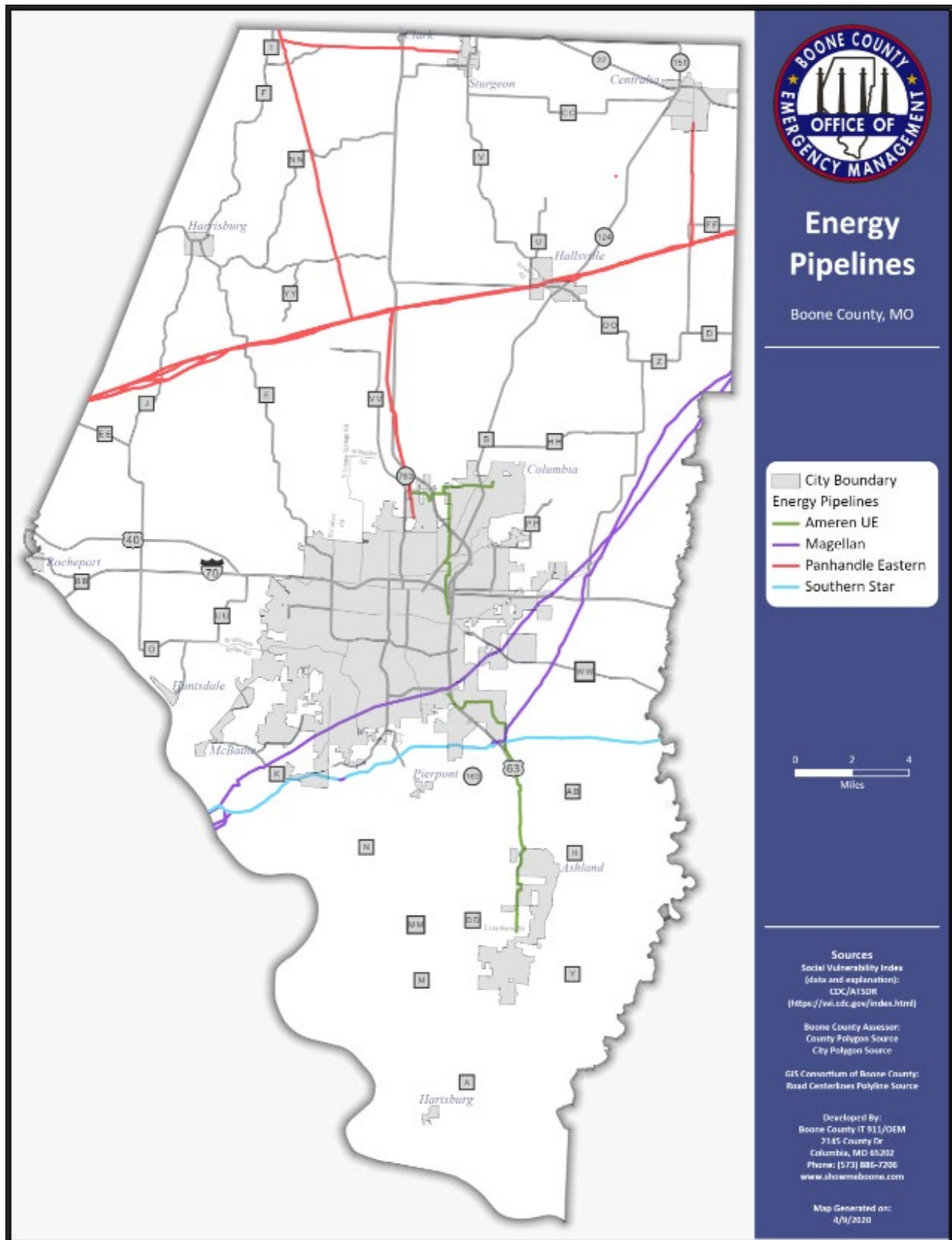
ESF-10 APPENDIX 4 : 2017 TRAFFIC FLOW STUDY

Most hazardous chemicals transported by highways are petroleum-based products such as gasoline and heating fuels. Major routes used to transport hazardous materials through Boone County include Interstate 70 and Highway 63.

This sample was obtained by a visual inspection of vehicles traveling east and westbound on I70 at the 121-mile marker in the spring of 2017.

CLASSIFICATION	0800-0900	0900-1000	1000-1100	1100-1200	TOTAL
1.4	0	0	0	1	1
5.1	1	0	0	0	1
5.2	1	0	0	0	1
1005 (Ammonia)	0	2	1	0	3
1075 (Propane)	1	0	1	0	2
1160 (Dimethylamine)	0	0	1	0	1
1203 (Gasoline)	6	4	3	3	16
1287 (Rubber Solution)	0	0	1	0	1
1790 (Hydrogen Fluoride)	0	0	0	1	1
1897 (Tetrachloroethylene)	0	0	1	0	1
1963 (Helium)	0	0	0	1	1
1987 (Denatured Alcohol)	0	1	1	0	2
1993 (Fuel)	2	1	1	0	4
2018 (Chloroanilines, Solid)	0	0	0	1	1
2187 (Carbon Dioxide)	0	1	0	0	1
3082 (Other Regulated)	0	0	1	0	1
3145 (Formaldehyde)	0	0	0	1	1
3250 (Polyamines, Solid)	0	0	1	0	1
Class 1	0	0	1	0	1
Class 2	4	0	7	3	14
Class 3	3	1	3	4	11
Class 4	1	0	0	1	2
Class 5	0	0	0	1	1
Class 8	6	2	4	2	14
Class 9	1	0	1	1	3
Corrosive	2	0	2	4	8
Dangerous	1	3	4	3	11
Flammable Gas	1	1	0	0	2
Non-Flammable Gas	2	0	0	0	2
# VEHICLES	32	16	34	27	109

SF-10 APPENDIX 5: PIPELINE MAP



ESF-10 APPENDIX 6: CHEMICAL EMERGENCY NOTIFICATION REPORT

Date: _____ Time: _____ Rec'd by: _____

Caller Name: _____ Representing: _____

Call-back Number: _____ Emergency contact: _____

Material(s) Released: _____ EHS: Yes / No

Amount Released: _____ 1bs/gals Potential release: _____

Date of Release: _____ Time: _____ Duration: ____ hr. ____ min

Release medium: Air ____ Water ____ Soil ____ Sewer ____ Drains ____

Location: City or County _____

Facility: (name) _____

(address) _____

Health Risks: _____

Precautions (Public Safety Concerns): _____

Incident Type: Fire ____ Gas Vapor ____ Spill ____ Explosion ____ Other _____

Type of Container: Truck ____ R.R. Car ____ Drum ____ Other _____

4-Digit I.D. No. _____ Placard/Label info _____

Weather Conditions _____ Wind Direction _____ Temp. _____ F/C

Agencies notified:

Local Fire Yes ____ No ____ Time ____

Local Emergency Management Director Yes ____ No ____ Time ____

MO Dept. of Natural Resources (573) 634-2436 Yes ____ No ____ Time ____

National Response Center (800) 424-8802 Yes ____ No ____ Time ____

CHEMTREC (800) 424-8802 Yes ____ No ____ Time ____

Other Yes ____ No ____ Time ____

Remarks (i.e. fatalities) _____

ESF-10 APPENDIX 7: HAZARDOUS MATERIALS RELEASE FORM

Locally Dial 9-1-1 - NRC Dial 1-800-424-8802

Missouri Department of Natural Resources 573-634-2436

Caller Name: _____ Call Date/Time: _____

Affiliation: _____ Telephone: _____

Material Released: _____ EHS: DOT# / CAS #: _____

Amount Released: _____ Gals/Lbs.: _____

Date of Release: _____ Time: _____ Duration: _____

Release Medium: Air _____ Water _____ Land _____

Include height and direction of plume, and describe terrain _____

Weather Conditions: _____

(Wind Direction, MPH, Temperature, etc.)

Location of Release: _____

(Address – Street, Building #, City, County, etc.)

Facility Name: _____

Address: _____

Facility Emergency Contact: _____

(Name)

(Address)

Incident Description: _____

(Color, odor, solid, liquid, gas)

Nearby Populations: _____

Other Hazardous Materials Nearby: _____

Additional Notifications Made:

Local Fire Department Yes / No Date/Time: _____

Community Emergency Coordinator Yes / No Date/Time: _____

Missouri Dept. of Natural Resources (DNR) Yes / No Date/Time: _____

Federal National Response Center Yes / No Date/Time: _____

Number of Dead / Injured: _____

Dead / Injured taken to: _____

Action Taken: _____

Form Completed by: _____

(Print Name and Title)

(Signature)

ESF-10 APPENDIX 8: EMERGENCY ASSISTANCE CONTACTS

FEDERAL AGENCIES	TELEPHONE	LOCATION
Department of Transportation	202-366-4000	Washington, D.C.
Environmental Protection Agency Reg VII	913-281-0991	Kansas City, KS
Federal Emergency Management Agency	816 283-7063	Kansas City, MO
National Response Center	800-424-8802	Washington, D.C.
Occupational Safety and Health Administration	800-321-6742 816-483-9531	Kansas City, MO
U.S. Coast Guard	504-589-6225	St. Louis, MO
National Weather Service	800-852-7497	St. Louis, MO
Agency for Toxic Substances & Disease Control	404-639-0615	Atlanta, GA
Center for Disease Control	404-633-5313	Atlanta, GA
U.S. Army Operations Center	703-697-0218	Washington, D.C.
Defense Logistics Agency	800-851-8061	Washington, D.C.
Department of Energy	202-586-5000	Washington, D.C.
U.S. Bureau of Explosives	202-835-9500	Washington, D.C.
U.S. Nuclear Regulatory Commission	800-368-5642	Washington, D.C.
STATE AGENCIES	TELEPHONE	LOCATION
Department of Natural Resources	573-634-2436	Jefferson City, MO
MO Radiological Emergency Team (MoRET)	573-751-2748	Jefferson City, MO
Missouri Department of Transportation	888-275-6636	Jefferson City, MO
Department of Agriculture	573-751-4211	Jefferson City, MO
State Emergency Management	573-751-2748	Jefferson City, MO
Missouri Division of Fire Safety	573 751-2930	Jefferson City, MO
Dept. of Health and Senior Services	573-751-4674	Jefferson City, MO
Missouri Highway Patrol	573-751-3313	Jefferson City, MO
Emergency Response Commission	573-690-6372	Jefferson City, MO

NATIONAL ORGANIZATIONS	TELEPHONE
CHEMTREC/CHLOREP	800-424-9300
American Association of Railroads (AAR)	202-639-2222
National Agricultural Chemical Association	513-961-4300

HOSPITALS	TELEPHONE
University Hospital	573-882-4141
Boone Hospital	573-815-8000
Women's and Children's Hospital	573-874-0600
Harry S. Truman Veteran's Administration	573-814-6000

COMMUNITY AGENCIES	TELEPHONE	LOCATION
Railroads:		
Colt	573-875-2555	Columbia
Kansas City Southern	877-527-9464	Centralia
Norfolk Southern	888-425-2202	Centralia
National Weather Service	800-852-7497	St. Louis
Poison Control	800-222-1222	St. Louis
Red Cross	573-219-7246	Jefferson City
Columbia Water & Light	573-875-2555	Columbia
Boone Electric Cooperative	800-225-8143	Columbia

ESF-10 APPENDIX 9: LEPC MEMBERS

POSITION	DEPARTMENT / AGENCY	Business Phone *Refer to Boone County EOP Contact & Resource Guide for confidential contact information
Chief Executives	Boone County Presiding Commissioner Columbia City Manager	573-886-4305 573-874-7214
Fire Officials	Boone County Fire Protection District Centralia Fire Department Columbia Fire Department. Southern Boone County Fire Protection District	573-447-5000 573-682-2131 573-874-7391 573-657-2370
Emergency Management Director	Boone County Office of Emergency Management	573-554-7900
Emergency Medical Services	Boone Health Ambulance Service University of MO Healthcare Ambulance Service Air Medical Service	573-815-3501 or 911 573-882-4400 or 911 844-682-2734 (MUCARE4) or 911
Health Officer	Columbia/Boone County Public Health and Human Services	573-874-7781
Police Departments	Ashland Police Department Boone County Sheriff's Department Centralia Police Department Columbia Police Department Hallsville Police Department University of MO Police Department Sturgeon Police Department	573-657-9062 573-875-1111 573-682-5182 573-874-7404 573-696-3838 573-882-7201 573-687-3300
Public Works Department	Boone County Road & Bridge City of Columbia Public Works Columbia Water & Light Ameren UE Boone Electric Cooperative	573-449-8515 573-874-7250 573-874-7325 800-552-7583 573-449-4181
Public Information	Agency PIO/Joint Information Center	
Community Partners	Public and private businesses and community agencies and organizations	

ESF-10 APPENDIX 10: TRAINING AND EXERCISE SCHEDULE

Training Programs Sponsored by the LEPC

Each year, the LEPC requests funding from the Chemical Emergency Preparedness Fund (CEPF) grant to offer the classes below. The LEPC also makes additional requests for specific training opportunities through the Hazardous Materials Emergency Preparedness (HEMP) grant.

- Hazmat IQ
- Hazwoper
- Hazmat Victim Decontamination
- Hazmat Refresher
- Hazmat Awareness
- Hazmat Ops
- Hazmat Technician
- SEMA conference

Exercise Schedule of Events

The Boone County LEPC conducts at least an annual exercise that tests the ESF-10 HazMat emergency operations plan or a specific component or function of the plan. The Boone County Office of Emergency Management also conducts and hosts various exercises throughout the year that may meet LEPC requirements. The LEPC exercise is planned in accordance with HSEEP exercise and evaluation guidelines and complies with the criteria set by the Missouri Emergency Response Commission. The exercise may be a discussion-based or operations-based exercise that follows a progressive and building-block approach over a five-year cycle.

Year 1 - Seminar or Workshop (ex: Hazmat Plan points of contact validation, how to handle a facility chemical inventory or response plan request)

Year 2 - Tabletop Exercise (TTX)

Years 3 & 4 - Functional Exercise (tests a specific different area of the plan each year)

Year 5 - Full Scale Exercise

SEMA Training

Further available training is provided by the State Emergency Management Agency at no cost to Boone County hazardous materials planners and responders, as well as to surrounding agencies who may be called to assist a Boone County jurisdiction in a mutual aid capacity.

Registration and further current information on the offerings below can be found at <https://sematraining.com/>.

NOTE: The global COVID-19 pandemic has had a major impact on the ability to provide training and exercises during the 2020 and 2021 calendar years.

ESF-10 APPENDIX 11: EQUIPMENT AND RESOURCES

Public Safety Resources:

Boone County Fire Protection District

BCFD maintains a FEMA Type I Hazardous Materials Team with the following training, capabilities and equipment:

- Field testing for known or suspected WMDs, and chemical and biological hazards
- Air monitoring
- Advanced detection and monitoring including WMD and biological hazards
- Sampling for known and unknown industrial chemicals – both liquid and solid – utilizing standard evidence collection protocols
- Radiation monitoring and detection
- Establishment of exclusion zones after contamination spread
- Ability to conduct environmental and personal surveys.
- All team members equipped with accumulative self-reading instruments (dosimeters). Includes alpha, beta, gamma detection
- Military (MA) test paper
- Multi-gas meter, ammonia meter and chlorine meter
- Ludlum instruments for radiation measurement (State issued)
- UltraRadiac pagers for radiation monitoring
- Regionally interoperable AreaRAEs
- K paper
- Chemical protective clothing (CPC) – protection from flash fire, and WMD capable
- Intervention equipment for absorption, diking and damming; liquid and vapor leak intervention; WMD and chemical/biological hazard confinement
- Class B foam quantities – 10 gallons per tanker
- Digital imaging documentation
- Mass Decon capabilities with enough equipment to do multiple sites
- Redress garments 5,000.

Columbia Fire Department

CFD maintains a FEMA Type II Hazardous Materials Team with the following capabilities:

- All CFD personnel are trained to the minimum level of hazmat operations – including the ability to dam, divert, dilute, and establish a decontamination line. All personnel have IFSAC and MO Division of Fire Safety (DFS) certifications; many possess the newest Hazmat Technician IFSAC certification issued by DFS.
- Staffing level of 8-10 HazMat Technicians on each shift for a total of 24 hazmat technicians.

- Training program ensures that members meet and or exceed the NFPA 472 standards for each member's respective position. Refresher training exceeds the hours required by DFS for a hazmat technician. All CFD personnel train a minimum of 5 times a year meeting the requirements for Hazmat Operations.
- Responders operate within the NIMS at any CBRNE WMD Event in accordance with NFPA 472.
- Monitoring and detection of hazardous materials
- Identification of unknown and known hazards and chemicals
- Emergency response to virtually all types of hazmat releases including industrial and residential hazardous materials events.
- Risk assessment techniques and selection proper personal protective equipment. (PPE). PPE in Levels A, B, C, D is available for personnel use.
- Air monitoring of small and large scale incidents.
 - 4 wireless regionally interoperable AreaRAE monitors with Guardian GPS indicating software
 - 4 wireless handheld RAE meters with photo ionization detectors to detect volatile organic compounds
 - Each front line apparatus has a four-gas monitor to monitor air quality for oxygen, carbon monoxide, hydrogen sulfide and lower explosive limits.
- Chemical and biological response for nerve agents and biologics i.e. anthrax, botulism, plague
- Identification of a hazmat material and ability to neutralize it. Numerous containers of AMPHO Mag remain stocked to neutralize chemicals.
- Radiation monitoring utilizing CANBERRA radiation meters/dosimeters, and two new models of LUDLUM radiation meters
- Identifying unknown substances using Ramen spectroscopy technology with HazMatID, and Ahura equipment
- Identifying unknown materials using M8 paper, oxidizer paper, fluorine paper, and pH paper.
- Hazardous Materials Public Safety Samples
- Technical decontamination for personnel and small numbers of general population. Includes a system to treat non-ambulatory patients.
- Mass decontamination utilizing a SEMA provided trailer with inflatable tents; also using large scale military tents.
- A dedicated hazmat truck designed to be used as a mobile command post and for performing research.
- The ability to respond to chlorine leaks using a 150 lb. cylinder repair kit (an A Kit) carried on the hazmat truck. Interoperable with Boone County Fire Protection District's "B kit" for one ton chlorine cylinders, and "C" kit for railroad cars, which can be requested through mutual aid. Draeger chlorometric tubes also stocked to check for chlorine and WMD agents.

Columbia Regional Airport Public Safety (COU APS)

Airport Public Safety responders are trained to Hazmat Awareness level, and have capabilities to contain

small fuel spills with PIG absorbent socks, PIG mats, and oil away. Incidents beyond that scope would be handled by the Columbia Fire Hazmat Team. Airport Public Safety has no further hazmat capabilities beyond what is listed above and deploying foam. Two aircraft rescue firefighting (ARFF) vehicles each have 1500 gallons of water and 200 gallons of AFFF Foam mixed to a 3% concentration. The airport maintains approximately 500 gallons of foam in reserve.

COU APS personnel will respond with one of the ARFF trucks if requested for mutual aid, though one truck must remain in service at the airport to prevent cancellation of all incoming and outgoing flights.

Southern Boone Fire Protection District

SBCFPD maintains hazardous materials awareness capabilities only, with some equipment for damming and diking operations. For hazardous materials events requiring a higher level of capability and/or more resources, SBCFPD will request mutual aid assistance from CFD, BCFPD or COU APS.

Missouri Task Force 1 (MO-TF1) Urban Search & Rescue

MO-TF1 maintains an equipment cache and has personnel based in Boone County that – while not available for an automatic rapid deployment - may be utilized to augment a local hazardous materials response. Capabilities include monitoring, detection, chemical identification and Level B mitigation.

Private Industry Resources:

AT&T

AT&T has 2 trained personnel that primarily work in the Boone CO area. Each employee is trained as identified below.

- AT&T Emergency Preparedness Training – yearly
- Environmental Overview – every 3 years
- Hazardous Mat & Waste Mgmt_NON CAL – every 3 years
- Battery Safety Awareness Training – every 5 years
- Personal Protective Equipment 1 – every 5 years
- Haz Com for Chemical Users LSO – every 5 years
- EH&S Orientation for New Employees-US – one time
- Materials of Trade & Other Exceptions - every 3 years

Emergency equipment includes

- Fuel spill kits - at each site
- Battery spill kits – at each site
- (PPE) Personal Protective Equipment – at each site

The spill kits vary but for the most part the kits include

- Absorbent Pads
- Neutralizing Agent (For Batteries)
- Clean up kit such as dustpan, broom, or shovel, hazmat storage bags
- PPE – Apron, Face mask, rubber gloves, possibly rubber boots

Each building has a fuel and battery spill kit.

AT&T is trained to deal with small spills (Incidental or Minimal) and would engage an outside vendor through the 1-800-KNOWEHS hotline for Large Spills.

BeeLine

Hazard: gasoline; 2 locations – spill kits

Columbia Jet Center

Hazard: Aviation fuels Flight line service techs have some training in spill response and fire extinguisher use, but will rely on Airport Public Safety to mitigate anything larger than a small spill. Spill kits and/or pads are located on the refueling equipment and strategically located around the facilities. An SPCC on file with additional direction and Airport Public Safety is located on airport for major spills.

CenturyLink

Hazard: battery acid - 60% water and 40% sulfuric acid mixture in large telecommunications batteries. Battery spill cleanup kits at each location which consist of neutralization materials, absorbent pads and pillows, and PPE for employee using the kit.

CenturyLink maintains a 24x7x365 emergency line for all company facilities. In the unlikely event a battery leaks, employees call this emergency line to report a spill and hazardous materials contractors are contacted immediately to respond to any leak/spill.

Employees are instructed to use spill kit to contain any leak/spill and to contact the emergency line to report. Training is very basic and any cleanup is handled by hazardous materials contractor.

Consolidated Public Water Supply

Hazard: 150 lb. chlorine gas cylinders stored at 13 well sites in Boone County.

1 Type A chlorine repair kit for 150 lb. gas cylinders located at each well site and at the district office at 1500 N 7th St. One Dreager 60-minute SCBA, and one Life-Air 30-minute SCBA also located at the District office.

Would rely on the fire department HAZMAT team to respond to a major chlorine gas leak.

Gates Corporation

Hazard: 37% Formaldehyde Solution. At maximum, one 55-gallon drum in use, and one 55-gallon drum in storage.

PPE - chemical suits, boots, gloves, and full face respirators for PPE.

Response resources- absorbents from spill kits and formaldehyde solidifier.

Personnel - 10 maintenance techs spread over 3 shifts that would respond to an issue with the system using the formaldehyde solution.

Honeywell

Spill response kits and 5 trained personal on site at one time - level of training is the use of spill kits and the use of secondary containment equipment designed to keep potential material on-site.

The Hubbell Power Systems

Hazard: Both sites have Sulfuric Acid that exceeds the threshold for an Extremely Hazardous Substance. Below is a list of equipment maintained at the site along with a list of response capabilities coordinated with outside parties:

Equipment:

Numerous Fire Extinguishers

1 - Acid Spill Kit

2 – Acid Neutralizing Spill Response Kits

1 - Universal Spill Kits

Numerous bags of Floor Dry

Plastic 55-gal Drums for spill cleanup

Plastic 95-gal Overpack drums

Communications and alarm system

24-hour security patrol

Response Capabilities:

11 HAZWOPER trained employees on staff

Centralia Fire Dept.

Centralia Police Dept.

Boone County Office of Emergency Management

Boone County Hazardous Material Response Team /Boone County Fire Protection District

KraftHeinz

30 Hazmat technicians

Spill response kits

SCBAs

Ammonia Detectors

4 gas and 5 gas monitors

Air purifying respirators

Level3 Communications

Hazard: sulfuric battery acid at all sites. The batteries are Valve Regulated Lead Acid Batteries which are in gel form.

Each site has a battery neutralization kit with PPE and an eye wash station; also spill materials - pads, booms and, in some instances, dry sweep. In the event the spill is too large to be handled internally, HazMat One (1-800-229-5252) is contracted as a National Emergency Response Vendor. Level3 technicians have basic environmental hazmat training, but few have official HAZWOPER training. Training is done internally through a course developed on the business' intranet, and is assigned to new hires and every other year or two after that. In some areas, training may be assigned annually as it covers multiple subjects.

MFA Inc.

Hazards: liquids and anhydrous ammonia; Small excavation equipment on site that can be used to dike and berm releases. In addition, facilities have spill supplies. The company would rely on the emergency response agencies for a catastrophic release of anhydrous ammonia.

Midwest Petroleum

Hazard: gasoline

Automatic Tank Gauges – ATG Veeder Root TLS-350

These test the product lines daily for any possible leaks and notifies by alarm if leak is detected followed by shutting down product flow. Monthly reports are printed out and kept for records.

Also tests product tanks (USTs) daily and notifies by alarm if a leak is detected. These reports are printed and kept for records monthly.

Onsite Spill Kits

- Plastic bucket
- Shock retardant shovel
- Wooden broom
- Latex gloves
- Caution tape
- Absorbent pads
- Booms

Emergency Contacts for large scale releases

If a large-scale release is detected, C Operators (33 total) at each location will shut off power to all fueling/gasoline dispensers via E-Stop (emergency stop button). They will then contact their A/B Operators informing them of the emergency release.

A/B Operators

Kyle Greenwell (District Manager)

Erik Ilgenfritz (Director of Maintenance and Repair)

Emergency Clean Up Companies Used

Neumayer Equip. Co. (Jeff City Office)

5060 Arsenal St

St. Louis 63139

T 314-772-4501

T 800-843-4563

Superior Equipment Company

24-hour line: 314 644 5040

Office: 314 644 6000

7525 Sussex Ave

Maplewood, MO 63143

Landmark Environmental

119 First Capitol

St. Charles, MO 63301
636-443-0008

Antea Group

150 St. Peters Centre BLVD; Suite C
St. Peters, MO 63376
1-800-477-7411

NuCO2

Hazard: Carbon Dioxide Refrigerated Liquid. The tank is outside. If there is a release, the Hazardous Material will dissipate into the atmosphere. No collection, containment, or cleanup is possible. Once the CO2 has dissipated, there is no danger.

Schneider Electric

Hazard: Battery acid and lead

Battery spill cleanup kits and fire extinguishers.

University of Missouri

Hazard: Chlorine located at each of 5 well house sites

- Level B hazmat response suits
- SCBA units on loan from the local fire department
- Audible chlorine alarm systems installed in the well houses in the event of a chlorine leak.
- Air actuated automatic shut off valves installed in the well houses. If the chlorine alarm is triggered, the system automatically shuts off the supply of chlorine.
- Arrangements with our chlorine gas supplier's emergency response crew to stabilize/render the cylinder safe for return to the vendor if needed.

Verizon Wireless

The 5 EPCRA reportable cell sites located in Boone County have stationary batteries used for emergency backup in the case of a power failure. Sulfuric Acid is in the electrolyte mixture inside the batteries. The batteries remain on site for 10, 15, or 20 years until being replaced with newer models. In the case a spill, emergency procedures are in place for the technicians to call an emergency hotline number and request professional cleanup. The facilities also have spill response kits. Clean Harbors and Veolia are the professional cleanup agencies used by Verizon.

Wiese USA, Inc.

Hazard: Battery acid contained in powered industrial equipment and small batteries, and new and used oil and antifreeze.

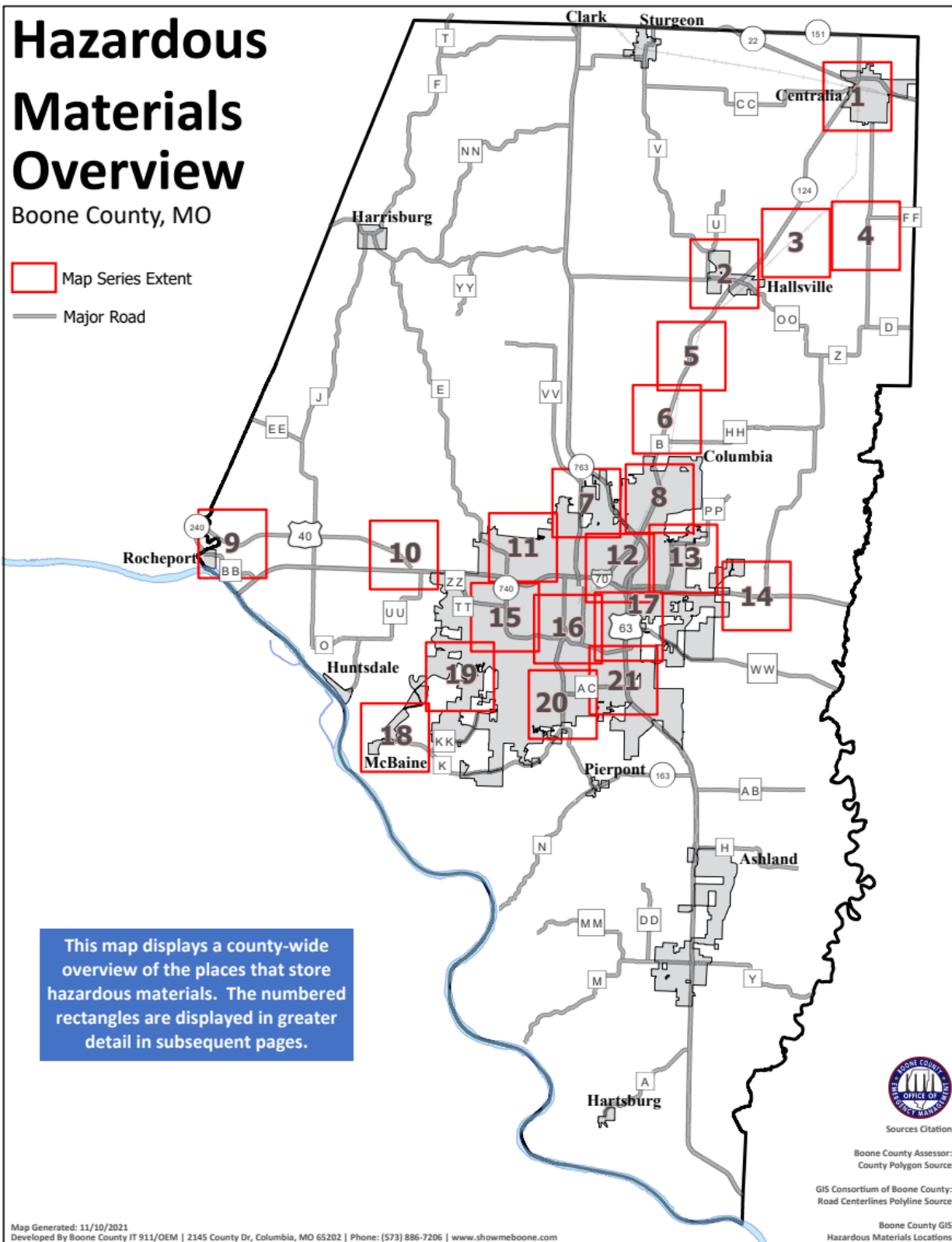
All branch-based Team Members are required to review the Emergency Spill Containment Plan on an annual basis. No other formal training is provided.

Business & After-Hours Response

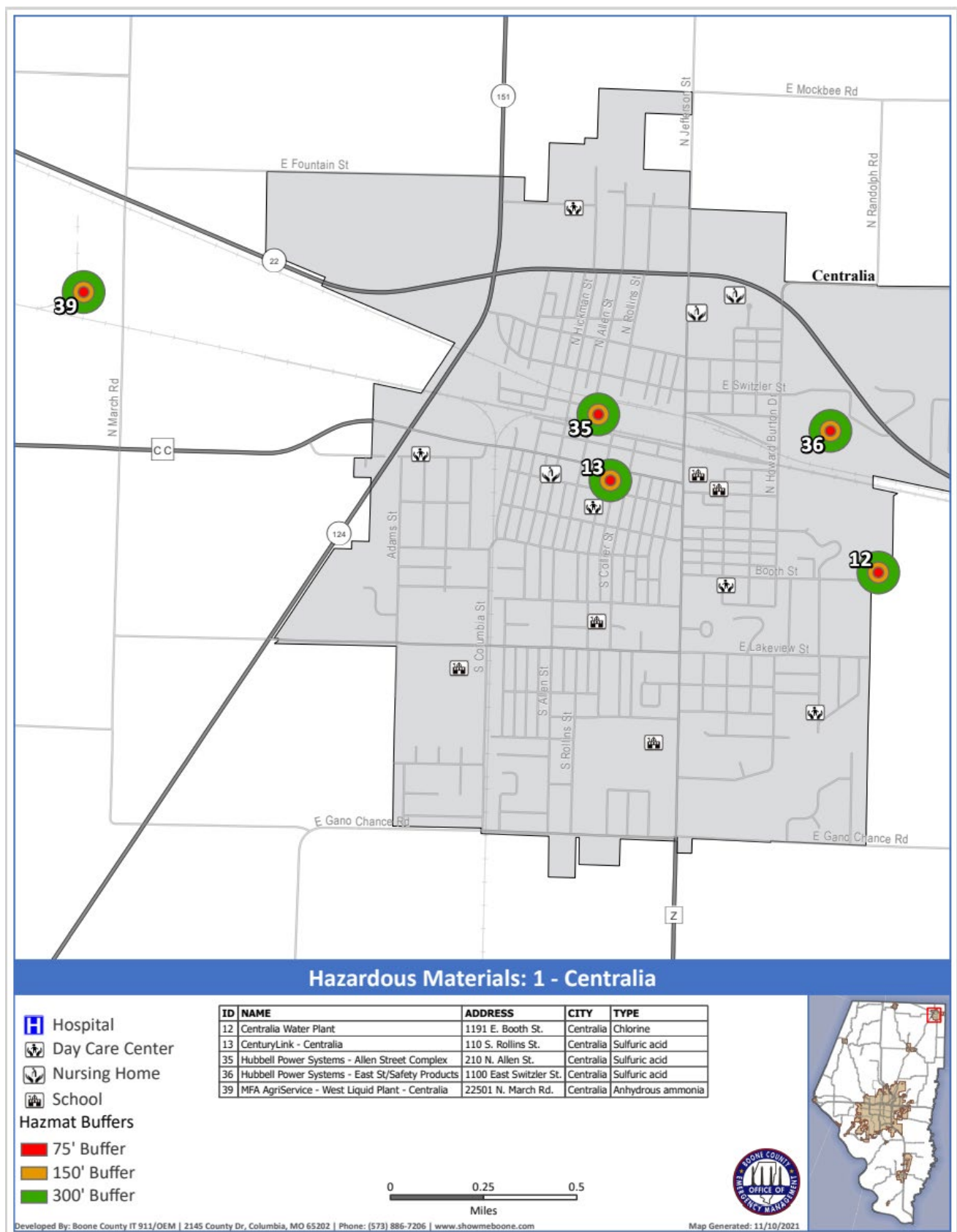
John Nelson	Branch Manager	*SCC Coordinator
Alan Dyer	Service Technician	

ESF-10 APPENDIX 12: HAZARD MAPS

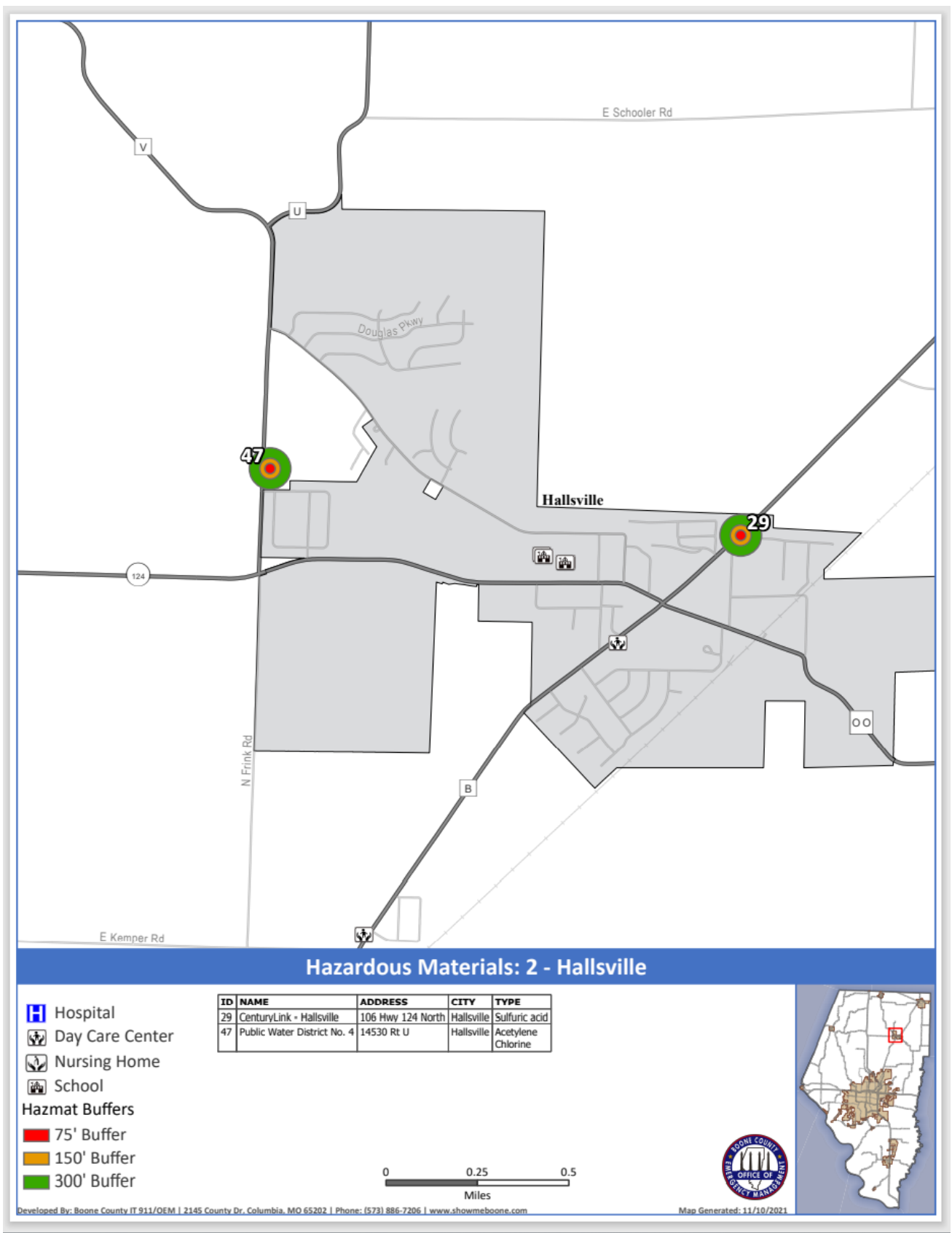
APPENDIX 12 – ATTACHMENT 1: HAZMAT MAPS OVERVIEW



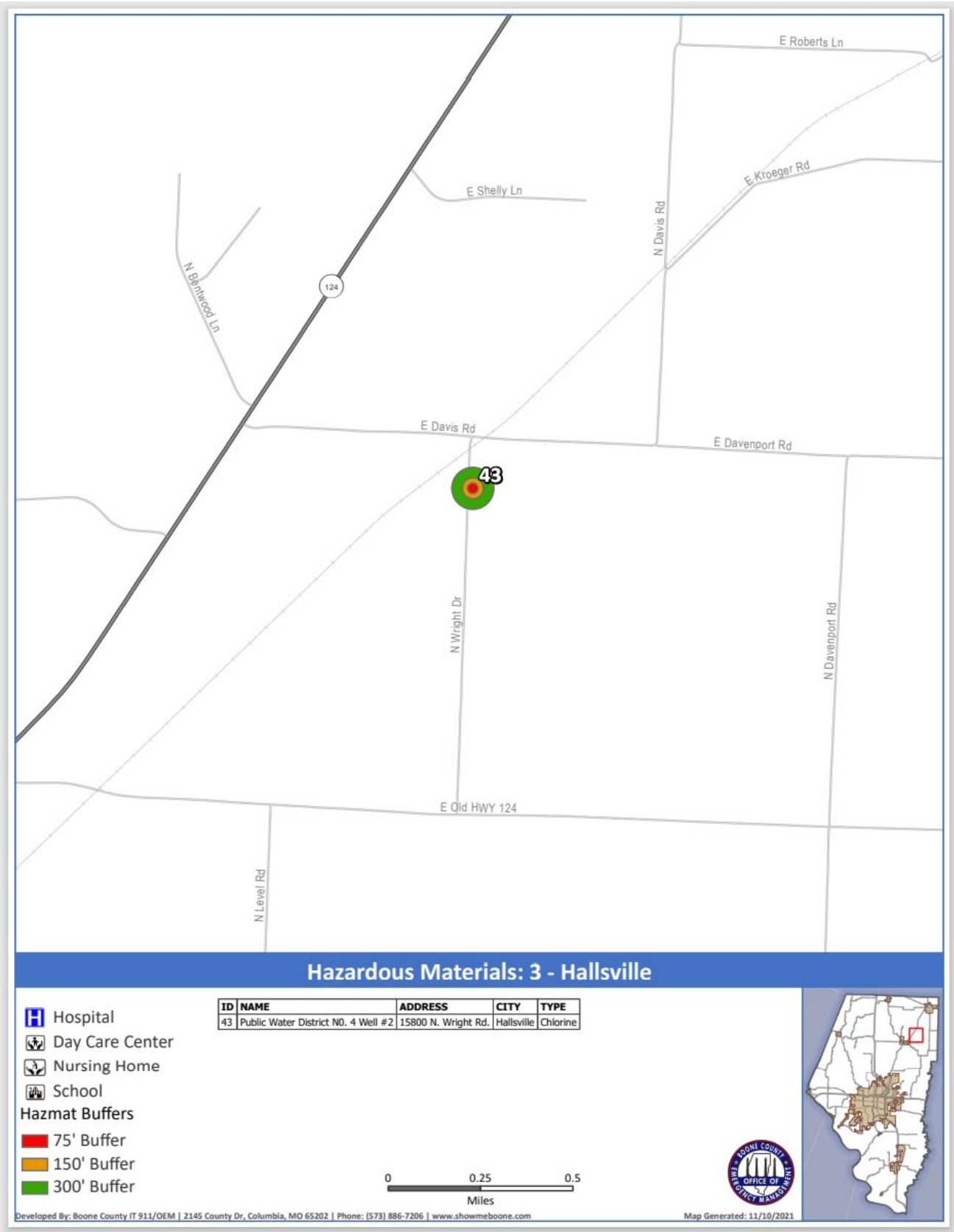
APPENDIX 12 – ATTACHMENT 2: 1 OF 21



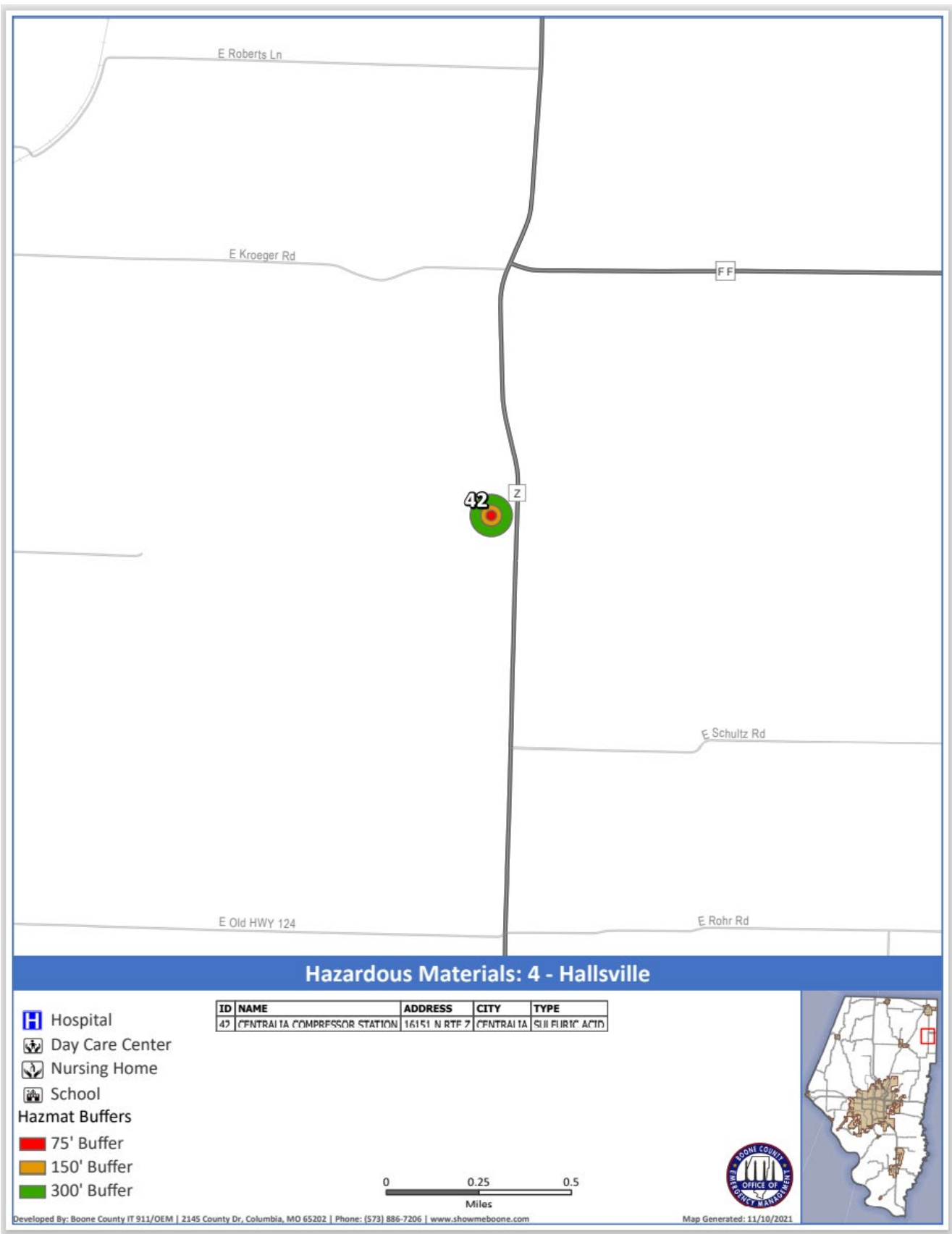
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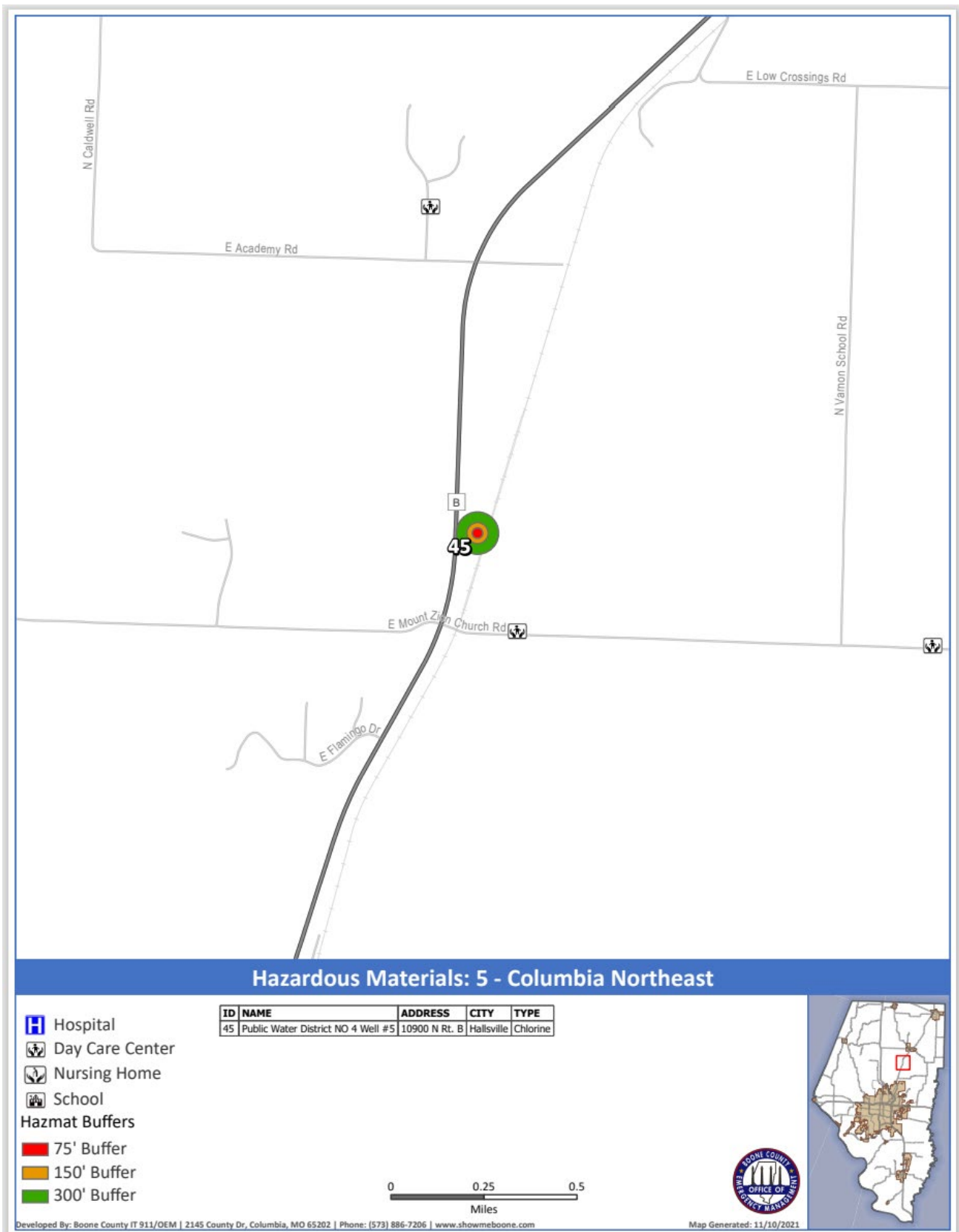
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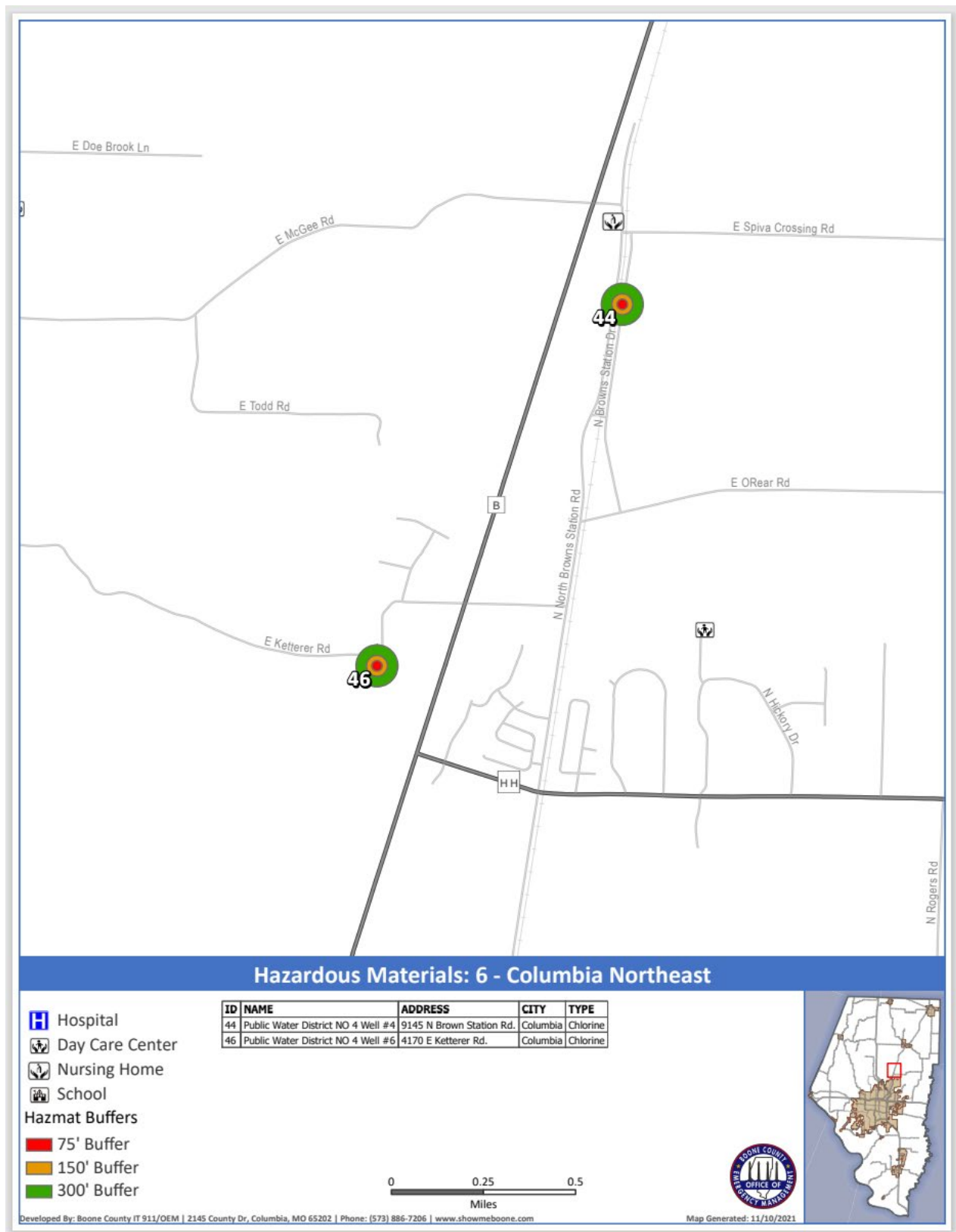
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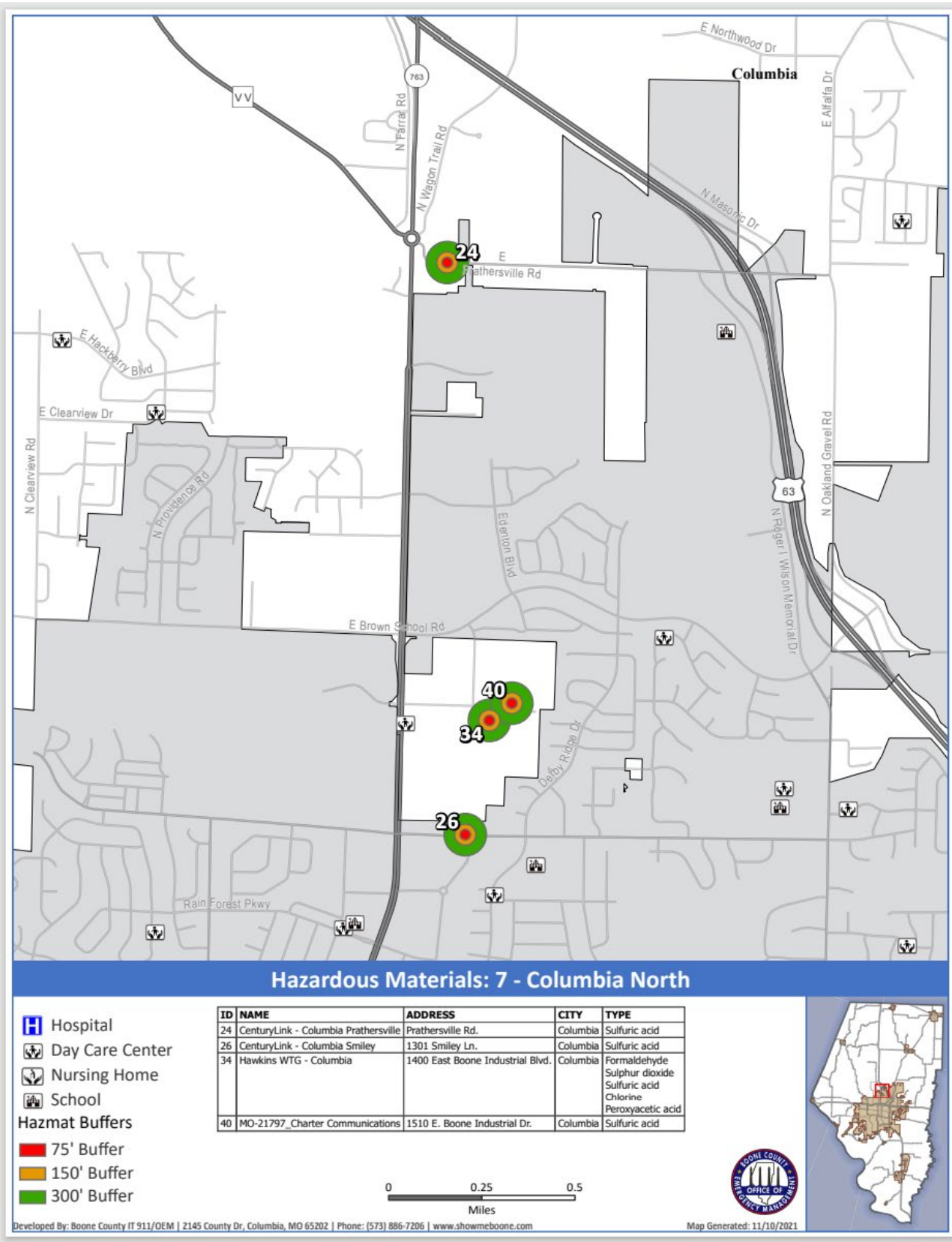
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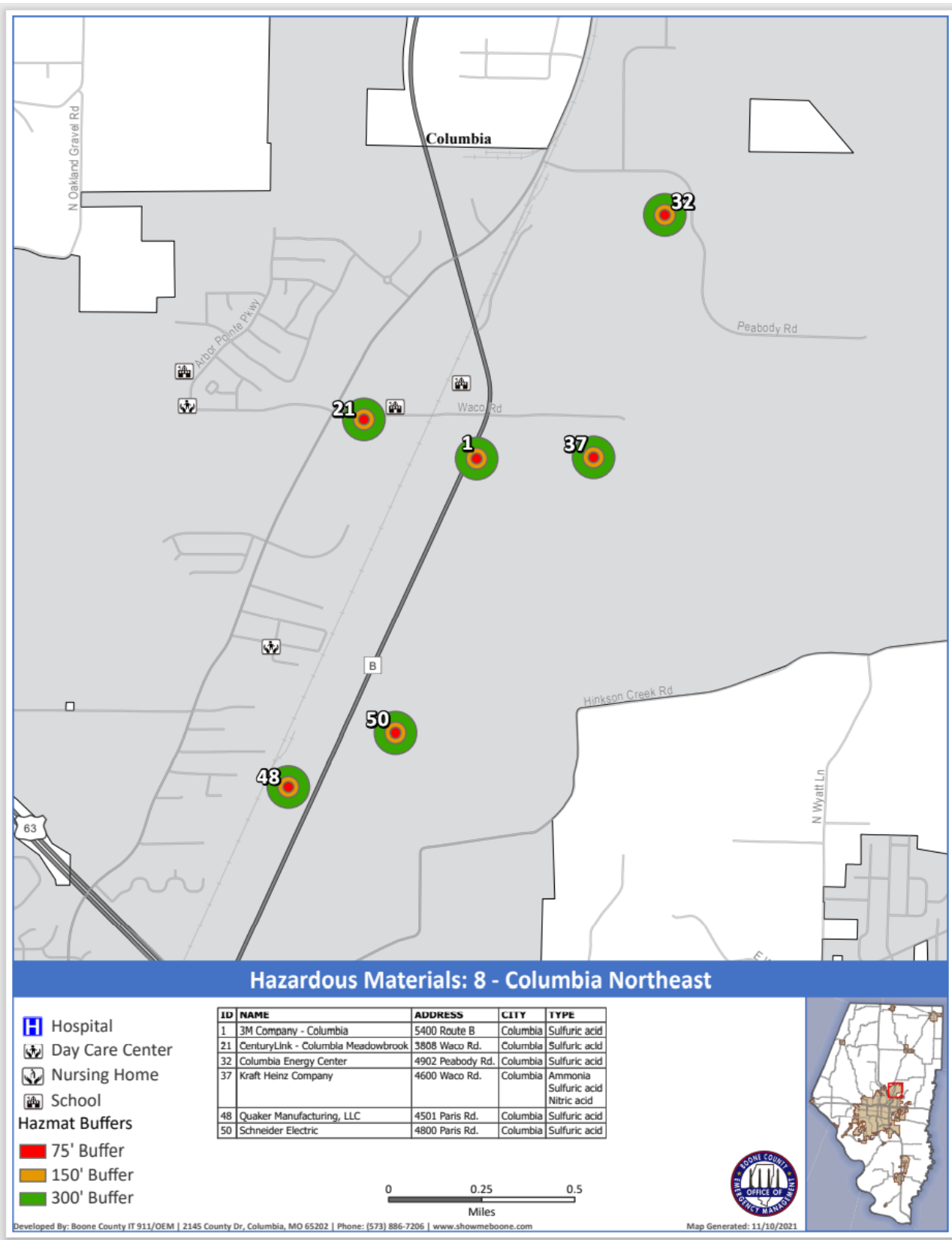
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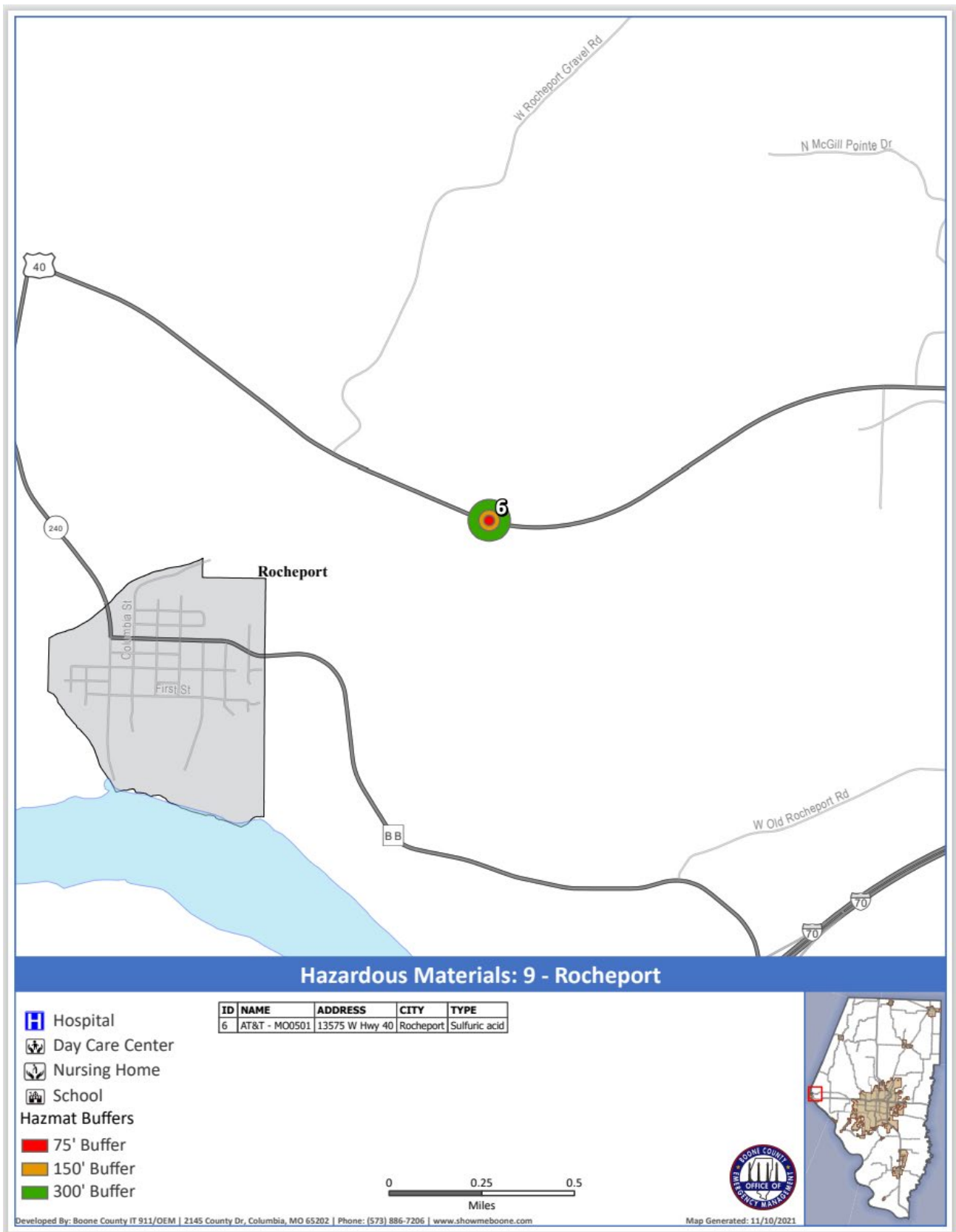
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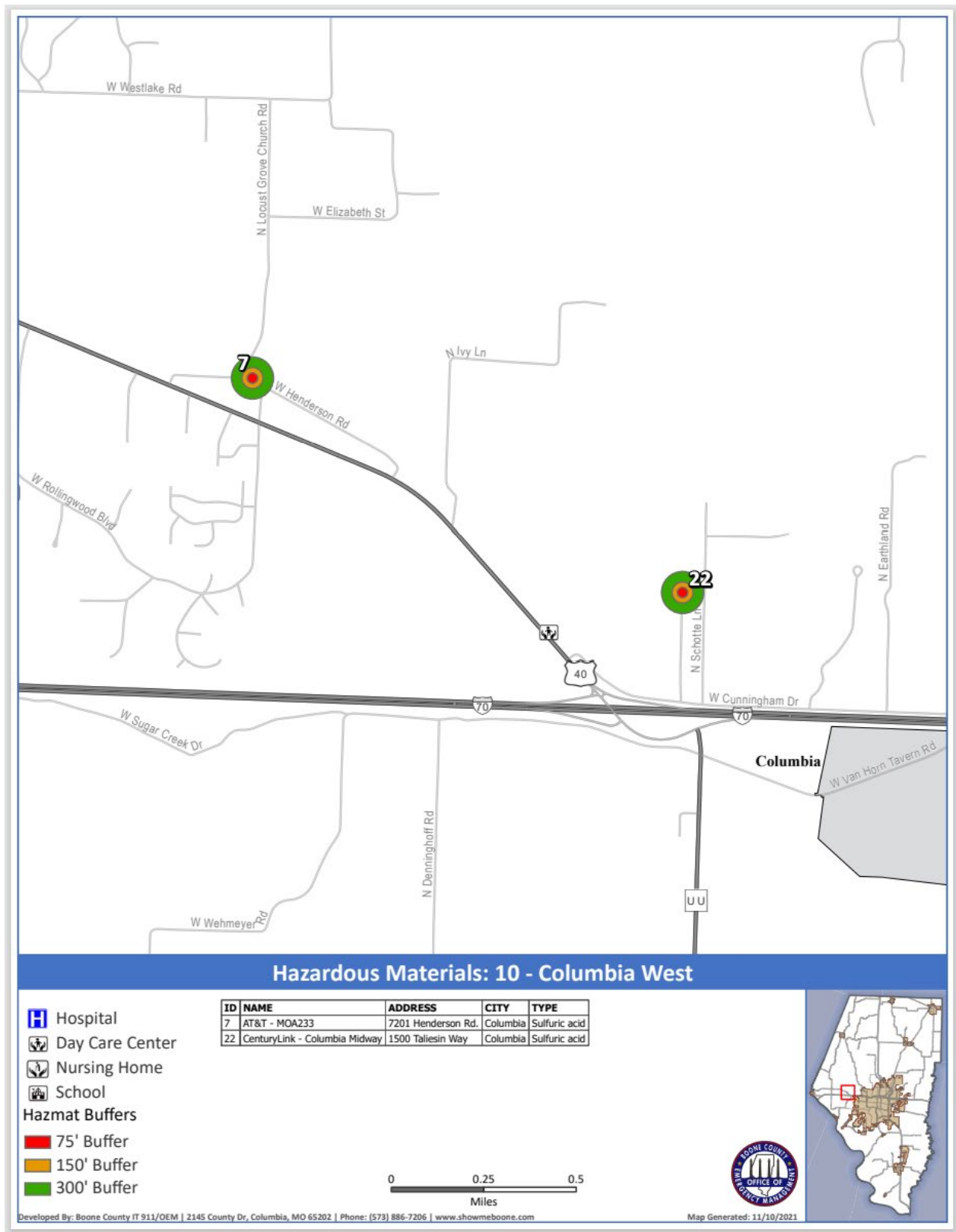
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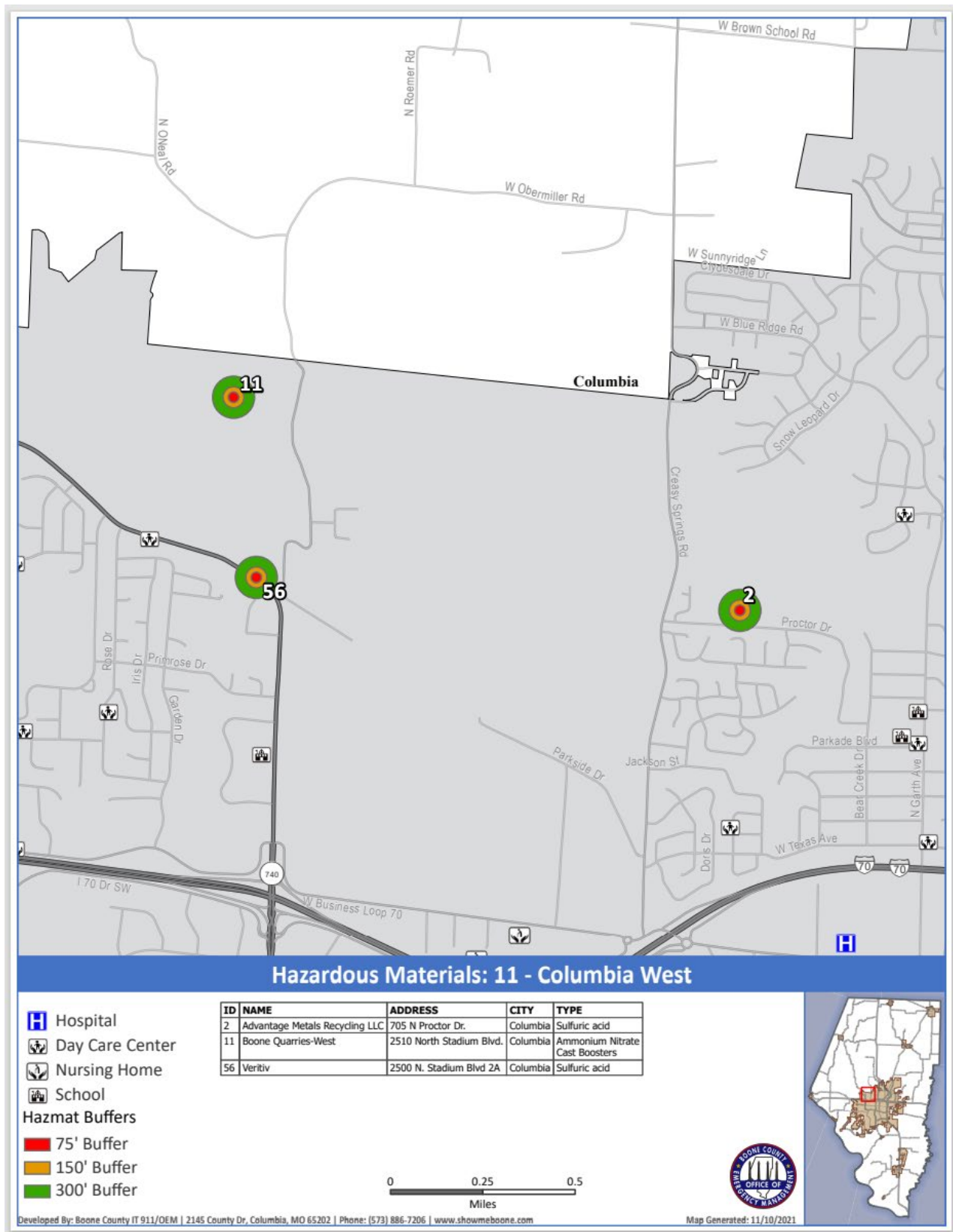
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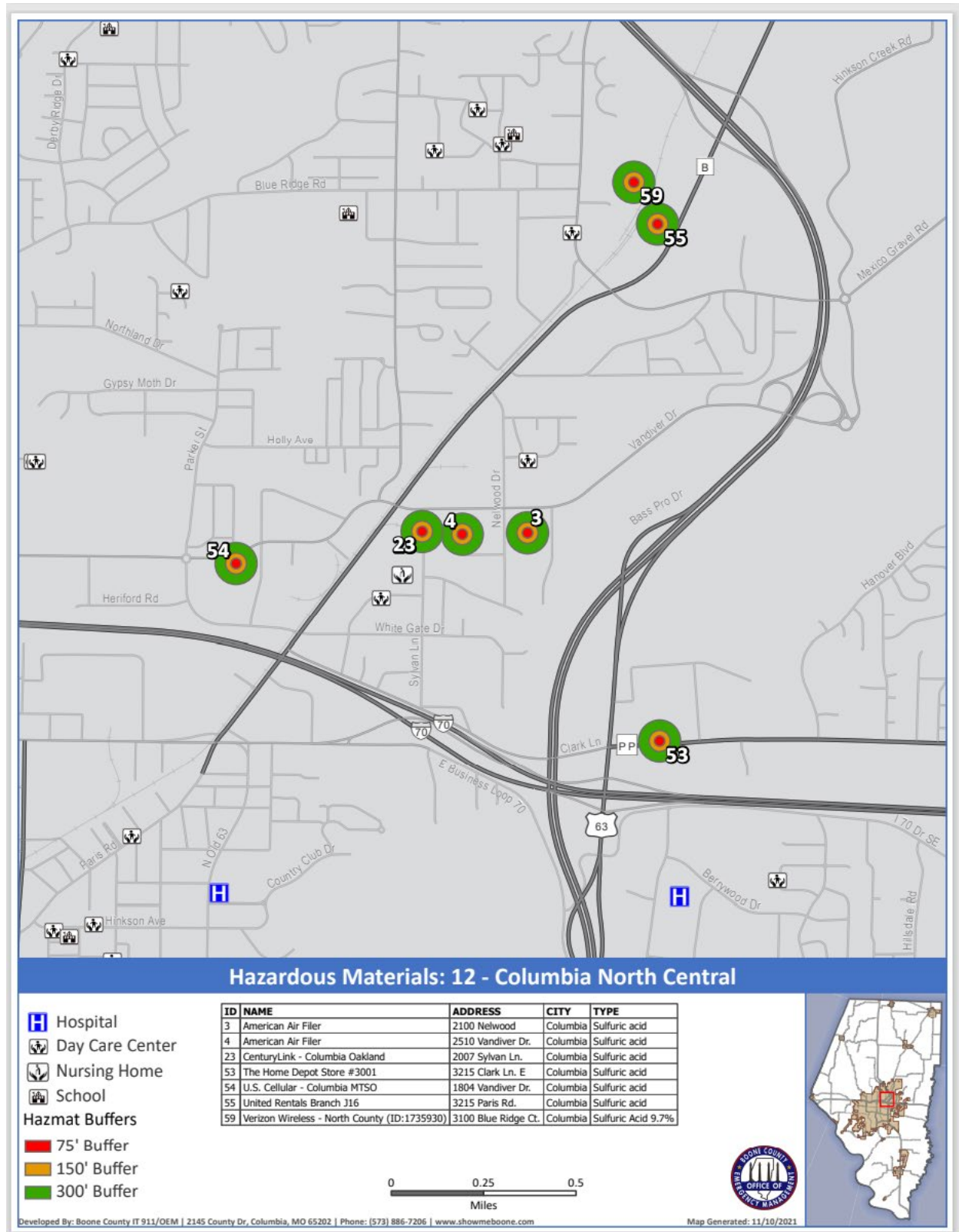
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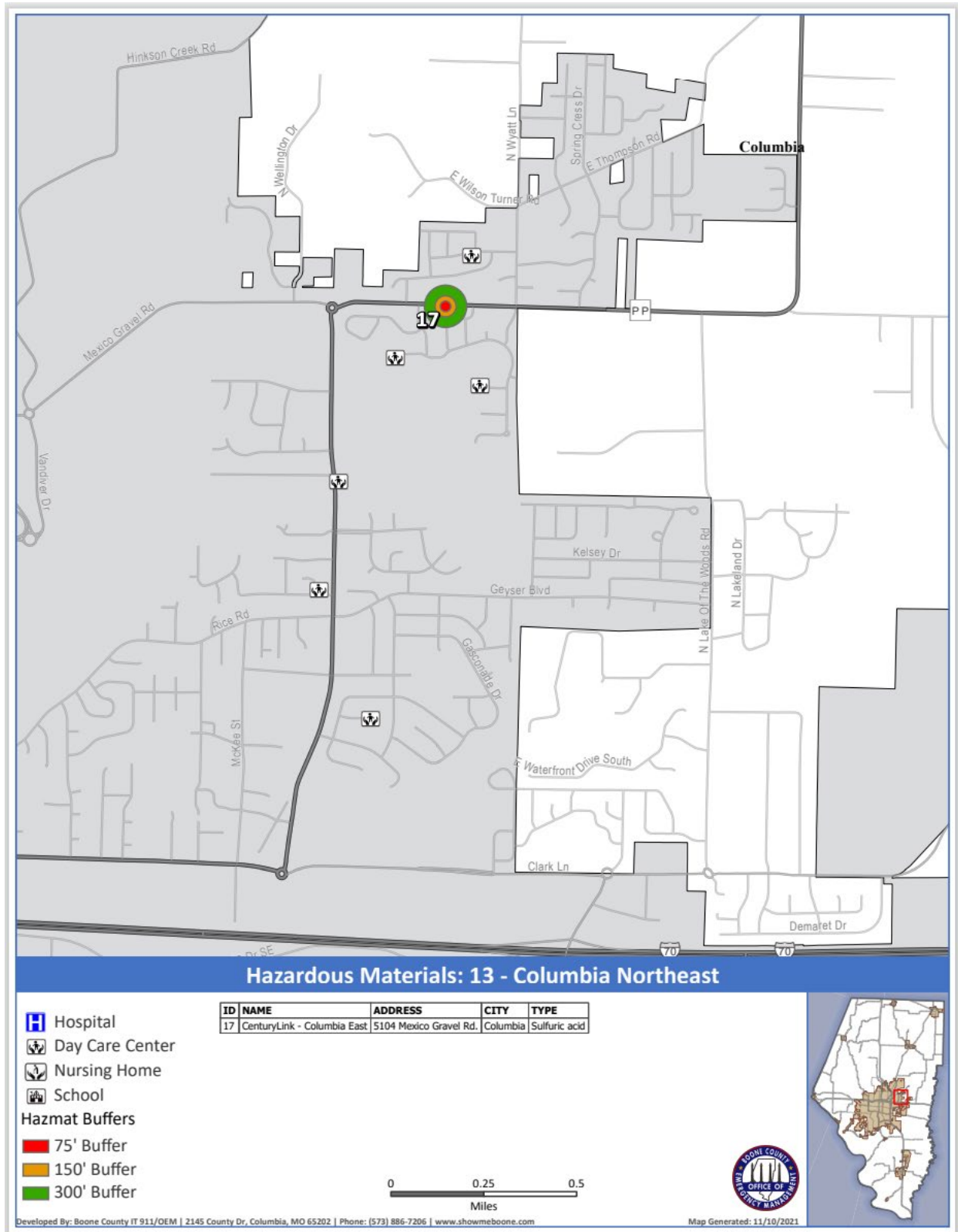
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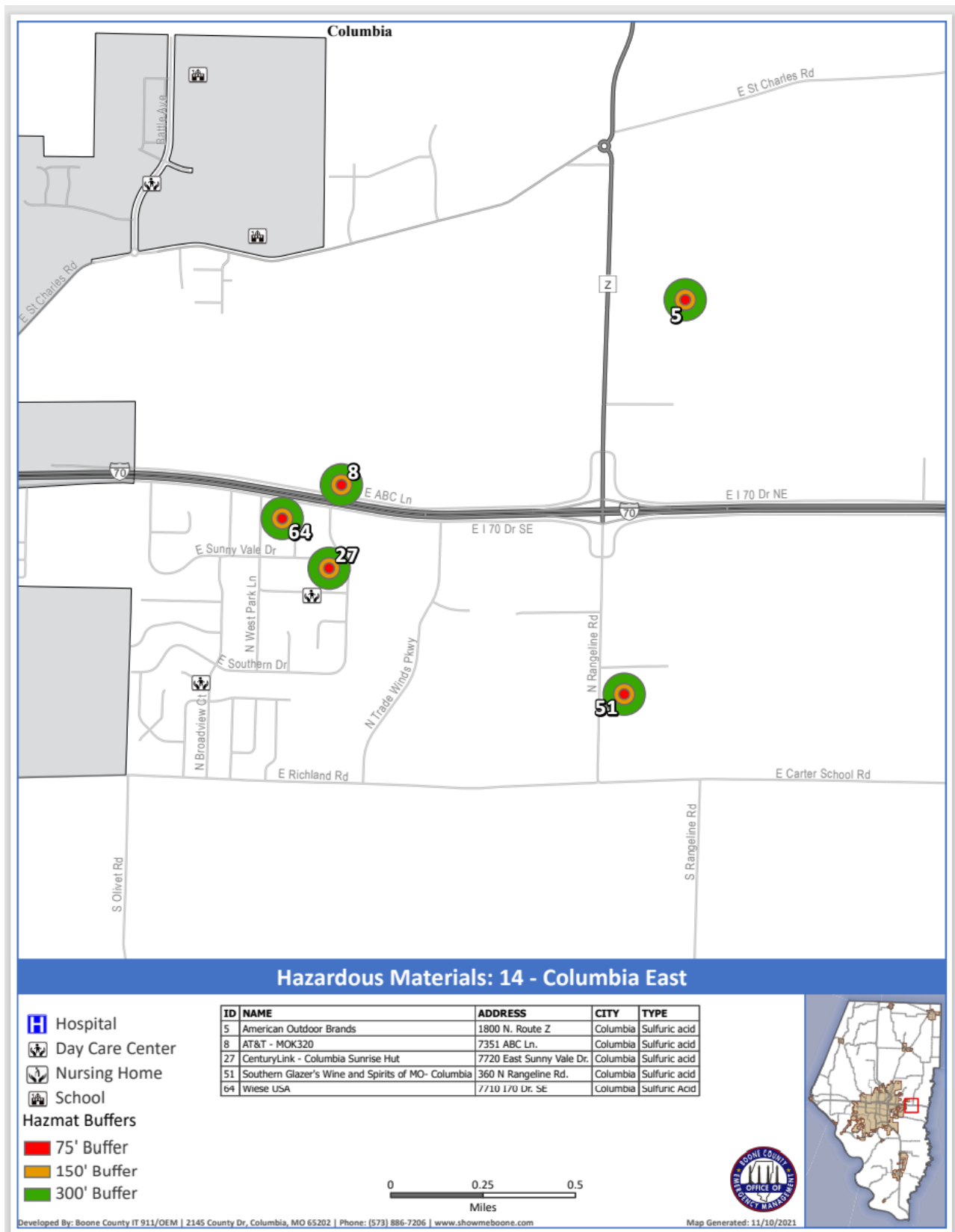
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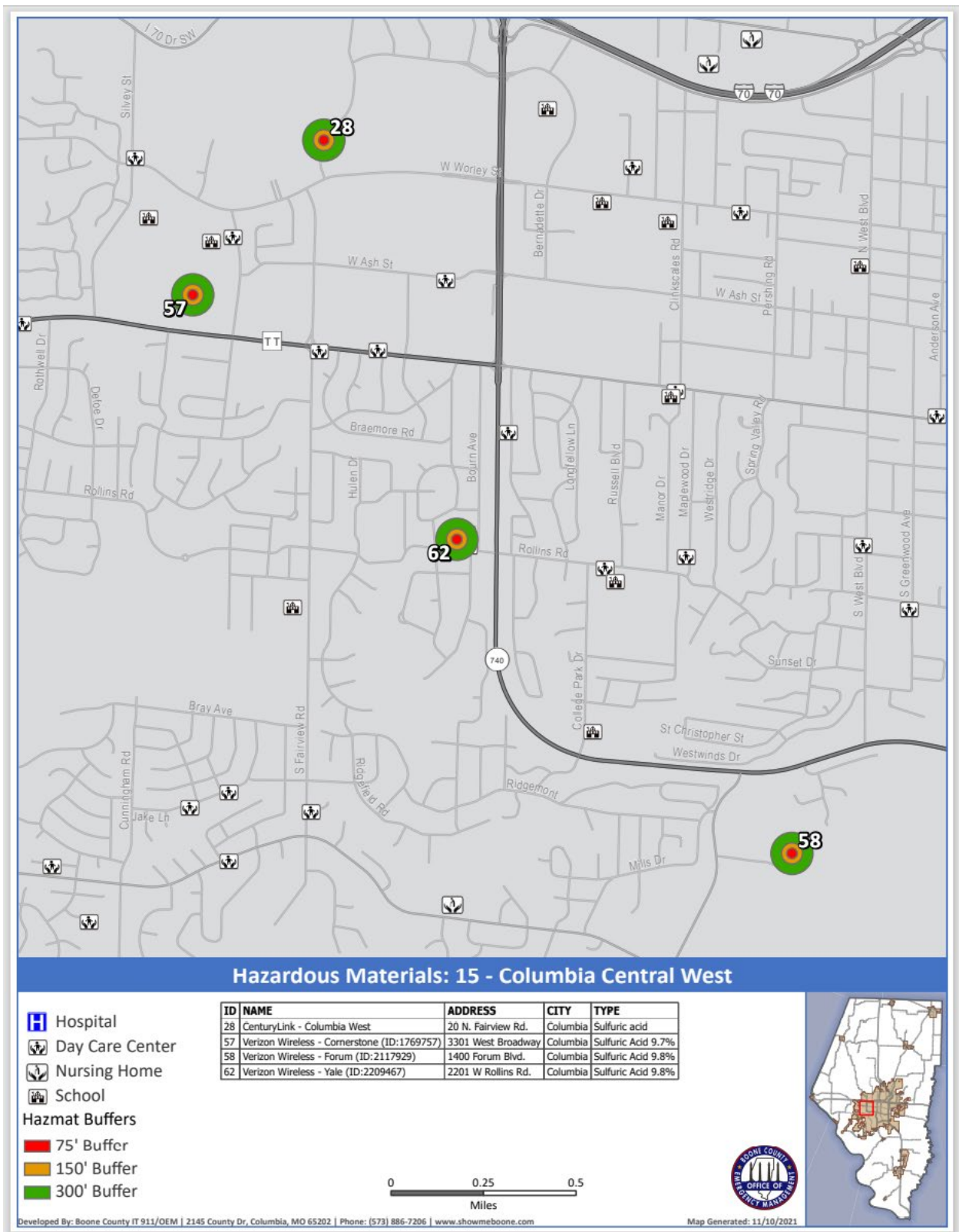
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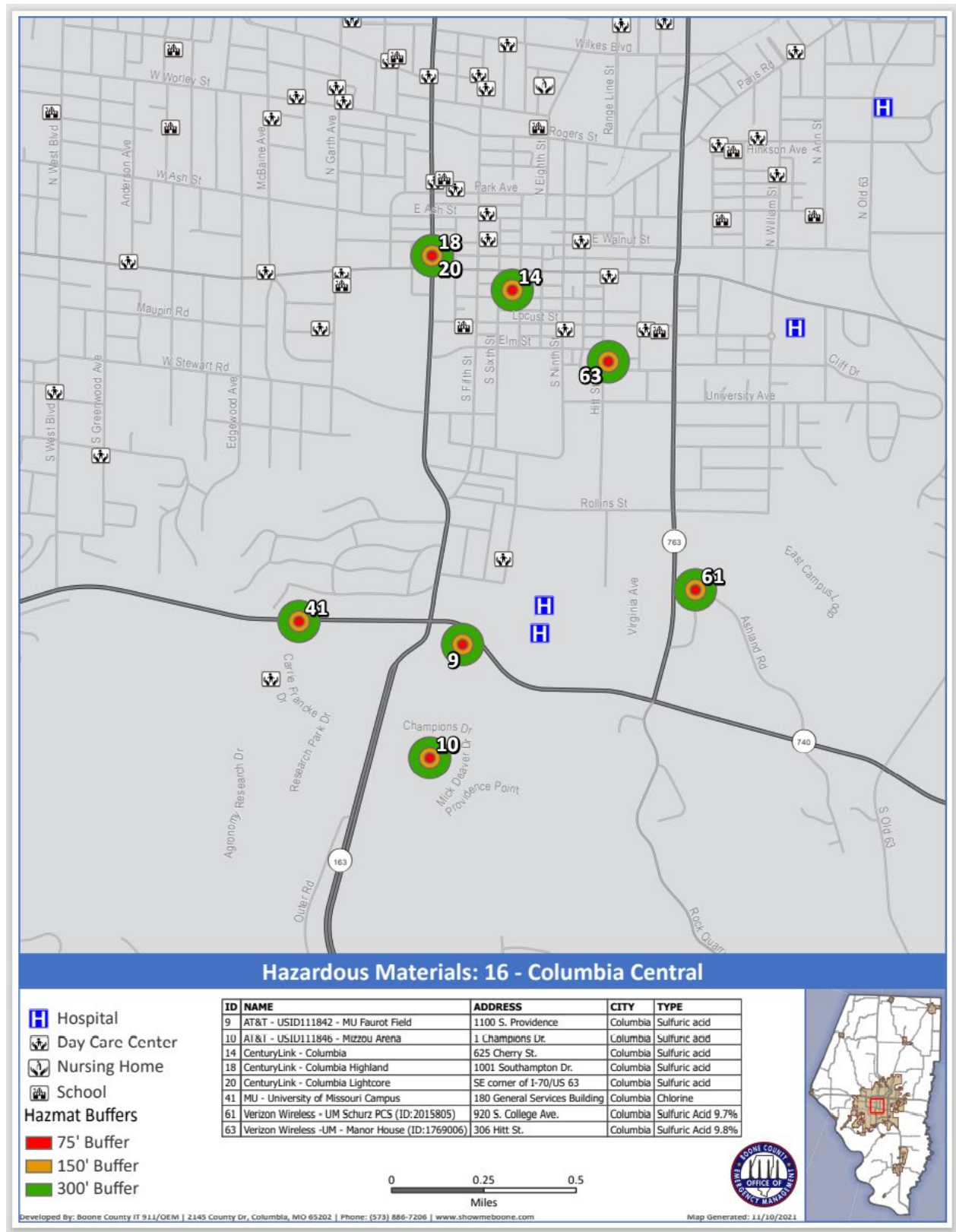
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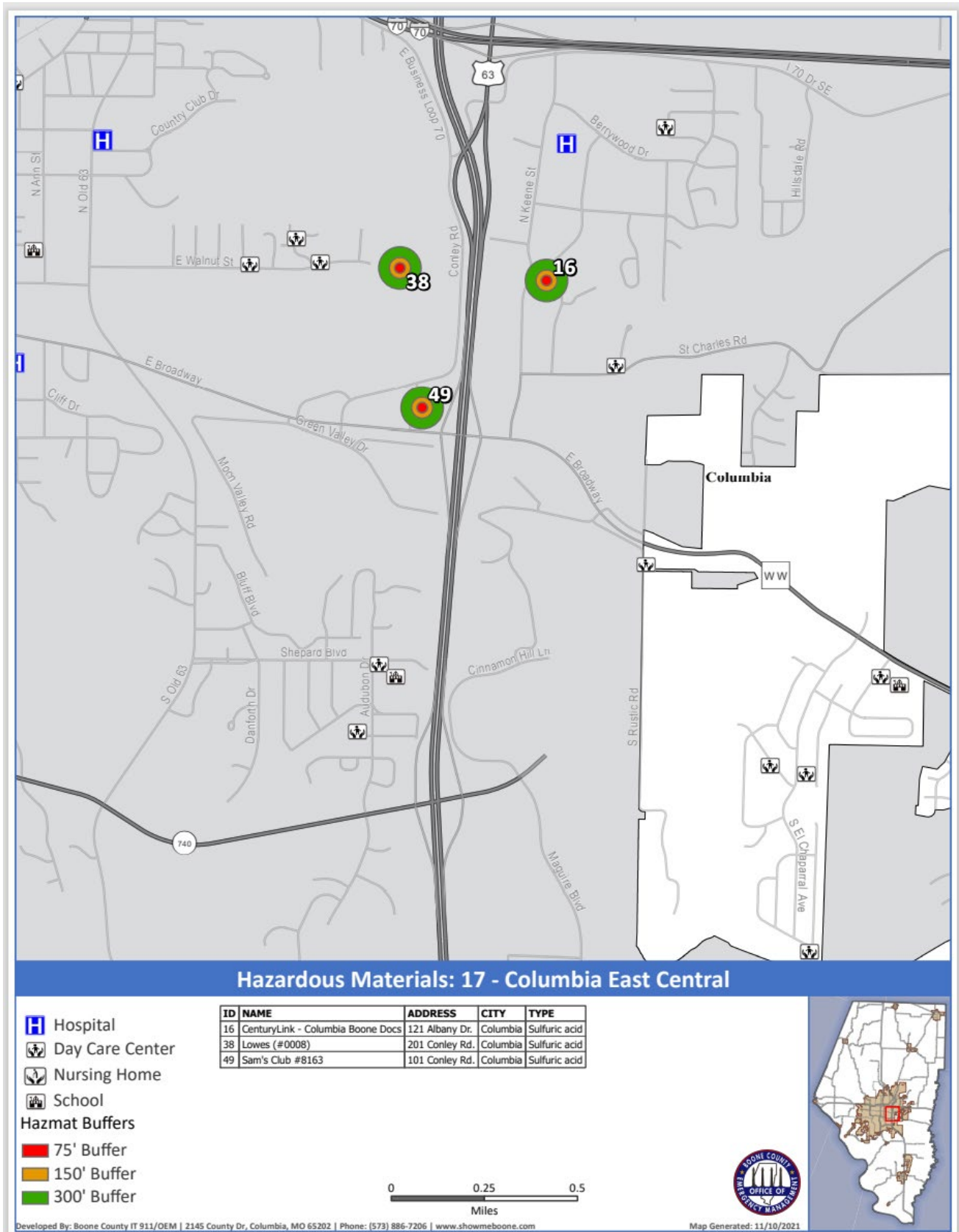
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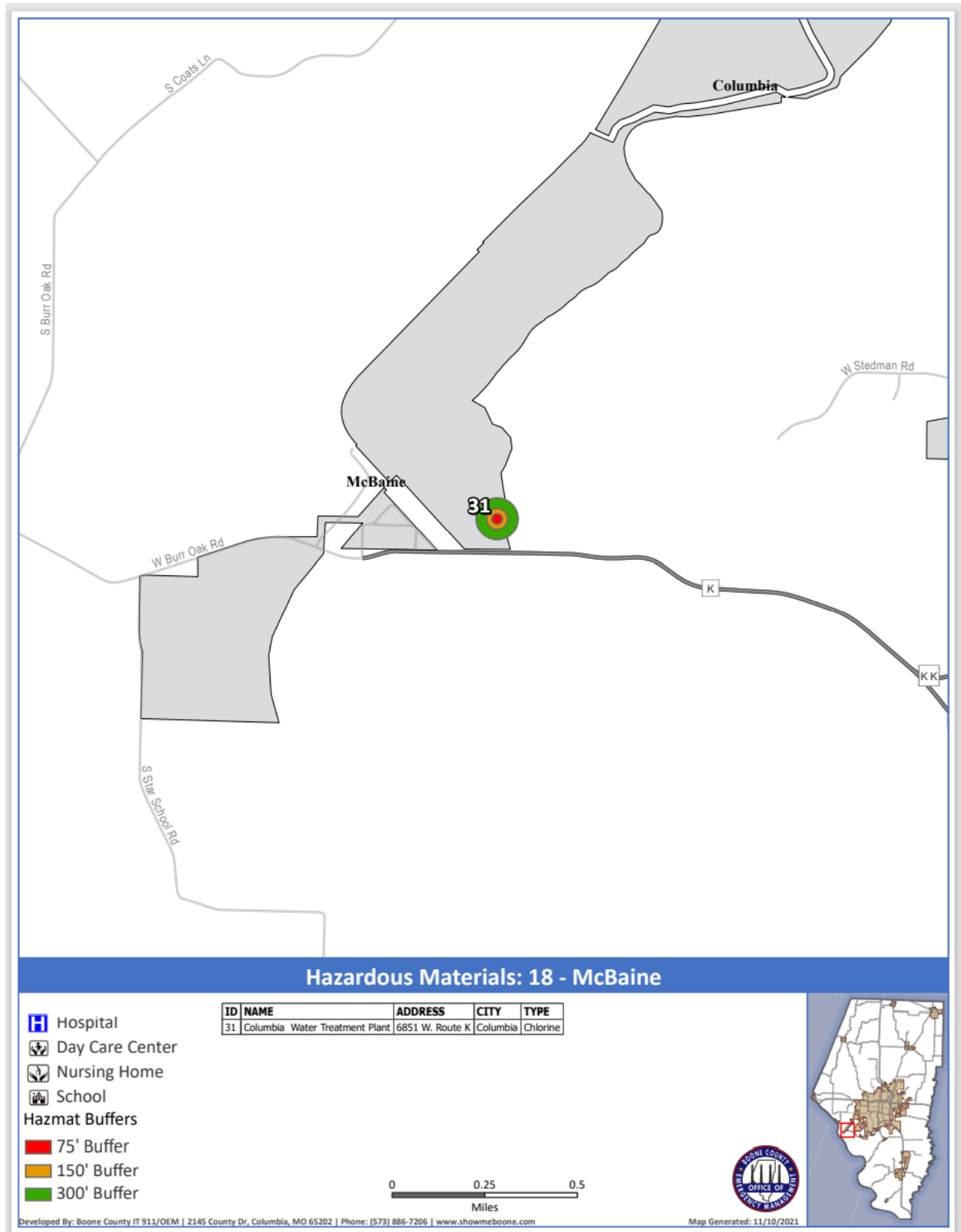
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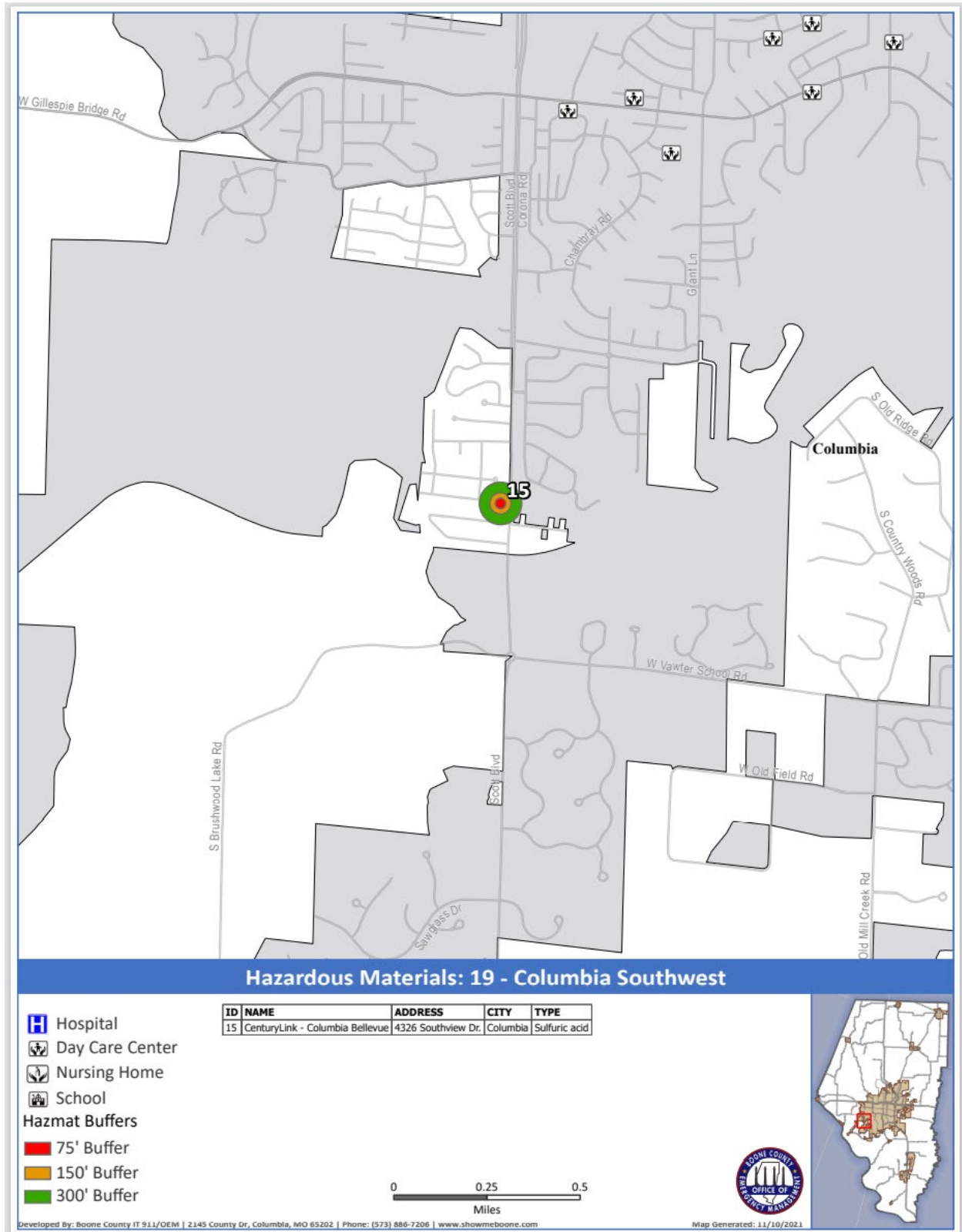
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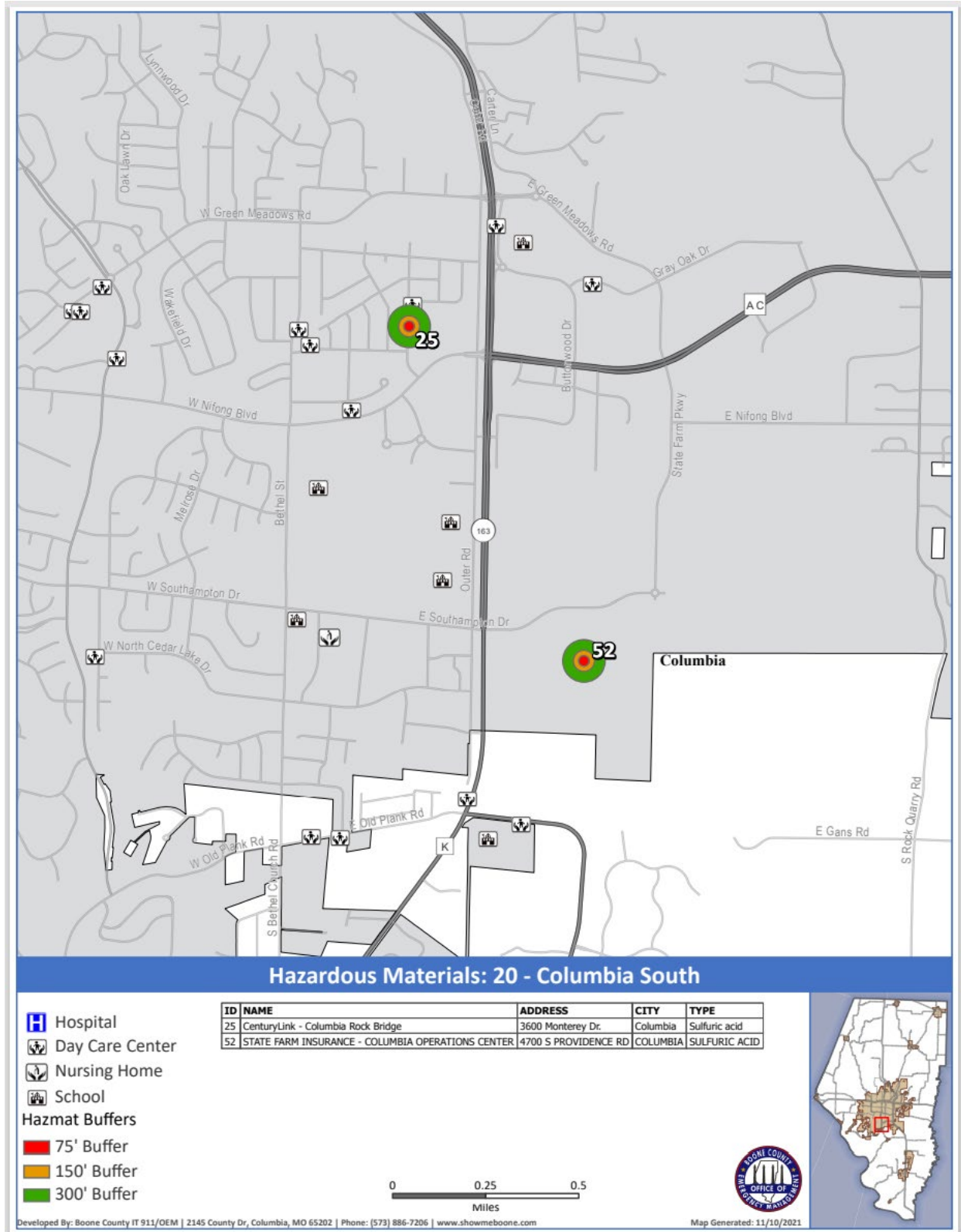
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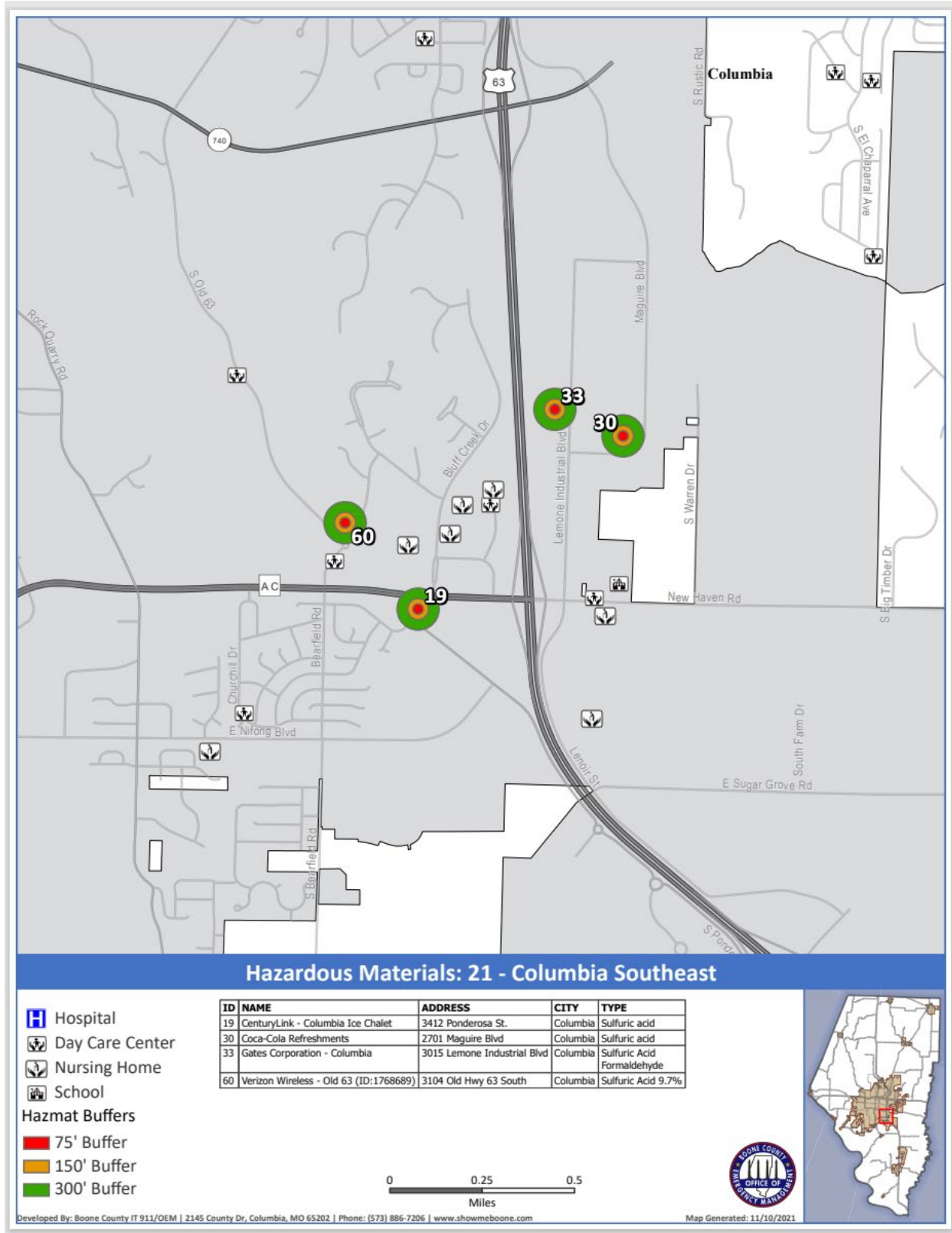
APPENDIX 12 – ATTACHMENT 20: 19 OF 21



APPENDIX 12 – ATTACHMENT 21: 20 OF 21



APPENDIX 12 – ATTACHMENT 22: 21 OF 21



ESF-10 APPENDIX 13: MEDIA STATEMENT

SUMMARY STATEMENT FOR MEDIA

HAZARDOUS MATERIALS INCIDENT

(To be adapted according to the situation)

At approximately ____am/pm today, a spill/release of a potentially hazardous substance was reported to this office by (a private citizen, city employee, etc. (Police/Fire) units were immediately dispatched to cordon off the area and direct traffic. The material was later determined to be (describe), a (hazardous/harmless) (chemical, gas, substance, material) which, upon contact, may produce symptoms of _____.

Precautionary evacuation of the (immediate/X-block) area surrounding the spill was (requested/required) by (agency).

Approximately (number) persons were evacuated.

Clean-up crews from (agency/company) were dispatched to the scene and normal traffic had resumed by (time), at which time residents were allowed to return to their homes.

There were no injuries reported -OR- _____ persons, including (fire/police) personnel, were treated at area hospitals for _____ and (all/number) were later released. Those remaining in the hospital are in _____ condition.

Response agencies involved were _____.

ESF-11: ANIMAL CARE

This ESF provides guidance for dealing with major emergency and disaster events affecting the health, safety and welfare of companion and agricultural animals in Boone County.

Agencies with identified roles and responsibilities in this annex include, but are not limited to:

Boone County Office of Emergency Management (BCOEM or OEM)
Central Missouri Humane Society (CMHS)
Columbia/Boone County Department of Public Health and Human Services (PHHS)
Columbia/Boone County Public Health and Human Services Animal Control Division (PHHS ACD)
American Red Cross of Missouri-Arkansas
Boone County Fire Protection District (BCFPD)
Centralia Fire Department (CEFD)
Columbia Fire Department (CFD)
Local veterinarians
Missouri Department of Agriculture (MDA)
Missouri Department of Natural Resources (MoDNR)
Missouri Department of Transportation (MoDOT)
Missouri Volunteer Veterinary Corps (MOVVC)
Southern Boone County Fire Protection District (SBCFPD)
University of Missouri College of Veterinary Medicine (CVM)
University of Missouri Extension

SITUATION AND ASSUMPTIONS

SITUATION

Boone County is subject to disasters that could cause displacement, evacuation and loss of primary needs for persons and their pets and/or livestock.

The Pets Evacuation and Transportation Standards Act of 2006 amends the Robert T. Stafford Disaster Relief and Emergency Assistance Act to require the Director of the Federal Emergency Management Agency (FEMA) to ensure that state and local emergency preparedness operational plans address the needs of individuals with household pets and service animals prior to, during and following a major disaster or emergency.

Boone County has an estimated population of 180,005 persons and 72,217 households (2018 US Census estimate). The estimated pet population shown below is determined by entering the population of the county into the American Veterinary Medical Association's Pet Ownership Calculator.

Estimated Pet Ownership in Boone County

Type	Number of Pet Owning Households	Pet Population
Dogs	25,270	40,432
Cats	21,047	44,170
Birds	2,146	4,916
Horses	1,038	2,839

[<https://www.avma.org/KB/Resources/Statistics/Pages/US-pet-ownership-calculator.aspx>]

Figure 11-1

There are also approximately 12,023 head of cattle, 1,196 head of swine, 1,115 head of sheep, 2,314 horses, and numerous other domestic, exotic and wild animals within Boone County.

The potential exists in Boone County for FAD/AD outbreak due to agroterrorism or natural causes.

There are numerous veterinary resources located in Boone County, including private veterinary practices and the University of MO College of Veterinary Medicine.

Columbia/Boone County Public Health and Human Services Animal Control Division implements and enforces laws, ordinances and regulations regarding animals in Boone County.

The University of MO College of Veterinary Medicine and the Boone County Fire Protection District cooperatively maintain the Boone County Large Animal Rescue Team for response to large animal technical rescue emergencies.

The Central Missouri Humane Society is located in Boone County and provides animal intake and placement, pet behavior resources, veterinary services and lost/found pet resources.

ASSUMPTIONS

Any disaster may potentially have adverse effects on Boone County's companion animal and livestock populations and therefore on the public health and welfare.

A disaster has the potential to cause displacement of large numbers of companion animals and livestock, and separation of owners from their animals.

Facilitating the care of household pets, service animals, and livestock enhances the care of the citizens of Boone County and potentially the county's economic infrastructure.

Citizens may refuse or be resistant to being separated from their animals, causing challenges during evacuations.

The introduction of a foreign animal disease or other animal disease (FAD/AD), either intentionally or unintentionally, would present the county with a critical situation that affects not only animal health but also a potentially debilitating economic situation.

It is likely that livestock producers will be the first to notice unusual behavior or symptoms in their animals, and private veterinary practitioners will likely be the first responders to any FAD/AD outbreak.

Many of the veterinary clinics in Boone County may have the potential to board animals during a disaster, though veterinarians and animal shelters may also need to evacuate due to an event. The Boone County Fairgrounds, the University of Missouri and private individuals may have available space for the care of large animals.

The removal of dead animals will be a problem, especially in a catastrophic disaster and may pose a health risk to the human population if not dealt with in a timely manner.

Agricultural animal owners/producers may have significant financial loss from a large-scale event.

CONCEPT OF OPERATIONS

GENERAL

In accordance with federal mandates, management of local disasters and emergencies will be initiated and conducted using the concepts and principles of the National Incident Management System (NIMS). On-scene management and coordination of responses will utilize the Incident Command System (ICS).

The animal care activities described in this annex are an extension of normal day-to-day activities and deal only with those situations that could completely exhaust all available resources.

ESF-11 will be coordinated by representation from one or all animal and agricultural stakeholder agencies involved in the incident. Entities with ESF-11 responsibilities will provide liaisons to the EOC, if activated, to form an ESF-11 coordination group. Liaisons may locate to, and operate from, the EOC, or may retain a virtual presence with the EOC. The ESF-11 liaison(s) will coordinate animal and agricultural resource management, maintain situational awareness, and provide information to the EOC regarding response and recovery efforts.

ESF-11 will prioritize, allocate and task assets in coordination with the other ESFs to support the disaster response and recovery efforts. Priorities will continually be reassessed to develop strategies and address the most critical needs.

Local resources will be used first before outside assistance is requested from mutual aid, the state and/or federal government. The first resources to be identified will be those that are under the control of, or are readily available to, the County and municipal governments.

The EOC will not interfere with the internal operations of the involved agencies but will monitor the situation and provide support as requested.

Mutual aid resources will remain under the authority of their home agencies but will be mission assigned by ESF-11 in the EOC and utilized on site by the Incident Commander.

COMPANION ANIMAL DISASTER MANAGEMENT

The PHHS Director is responsible for the coordination of animal health and sheltering in a disaster. This involves communication and coordination of pet and animal assets for the county, region and state. The PHHS Animal Control Division (ACD) of PHHS will provide staff and serve as the liaison regarding animal resource requests from Boone County.

PHHS – ACD will coordinate the following during a disaster:

- The identification of facilities for displaced pets and animals in coordination with the Red Cross, Office of Emergency Management and the Central Missouri Humane Society. Further resources can be requested through the State Emergency Management Agency.
- The removal and proper disposal of animal waste and dead animals.
- The capture and transportation of displaced animals.
- The provision of necessary animal medical care with veterinarians. Boone County OEM maintains a list of veterinary services located within the county.
- The diagnosis, prevention, and containment of zoonotic diseases and other animal related conditions of public health significance in cooperation with the Missouri Department of Agriculture, the USDA and local veterinarians.
- The provision of public information relevant to the care and safety of the animal population.

Ideally, animals will be housed with, or close to, their owners. This will benefit both owners and pets by:

- Allowing owners to continue to provide the day-to-day care for their pets.
- Providing comfort and maintaining a sense of normalcy.
- Decreasing the numbers of volunteers needed for the animal shelter

The primary human sheltering agency – American Red Cross – does not accept pets in Red Cross managed shelters, though co-sheltering pets adjacent to, or near, Red Cross shelters may be possible.

Locations for possible animal shelters are may include the Boone County Fairgrounds, the Central Missouri Humane Society, co-sheltering adjacent to Red Cross shelters, church gyms, etc. A list of animal shelter facilities, confinement facilities and/or temporary shelter areas will be maintained by Animal Control. Emergency animal shelters will be established when necessary and communicated to the public through emergency information protocol. Animal shelters will also be needed for stray and displaced animals.

The Central Missouri Humane Society is the primary animal sheltering partner with PHHS - ACD. The total capacity of the CMHS is 200 animals, with ability to expand using portable crates and acquired space. The Columbia Fire Department maintains a training area immediately adjacent to the CMM-HS and can provide space for additional animal housing. CMHS also partners with the Shelter Medicine Department at the University College of Veterinary Medicine, and other rescue organizations within Boone County and the surrounding region. CMHS does not handle agriculture animals or exotic animals, except for companion reptiles.

ESF-6 and ESF-11 will cooperatively coordinate volunteer services for animal rescue, shelter and health care, and track activities of animal shelter and confinement facilities. Animal Control and Humane Society officials will coordinate with Red Cross personnel to assure the safety and care of the animals of evacuees or displaced families.

Animals impounded will be tracked, using microchip devices, photographs, and complete descriptions, until disposition is completed. Identifying information will be used to assist individuals attempting to reunite with missing pets. Identification data will be shared with local agencies to establish a system for reuniting animals with their owners.

Animal medical service will be provided as needed for animal shelter and confinement areas.

A system for tracking deceased animals will be maintained and will include photographs, microchip scanning, detailed descriptions, location found and tags/license information.

Animal Control staff will attempt to locate owners of stray animals and determine processes for disposition of unclaimed animals and shelter overflow.

Rescue and capture of animals will be coordinated and tracked by Animal Control. Assistance may be provided by the School of Veterinary Medicine or private groups for the capture and care of exotic animals and wildlife.

Boone County Office of Emergency Management manages an emergency pet shelter trailer donated by AKC Reunite which has administrative supplies, animal leads, muzzles, bowls and crates. A full inventory list of the Boone County Disaster Relief Pet Trailer is in Appendix 11. The trailer is located at the Emergency Communications Center at 2145 County Drive.

Region F counties have two additional animal shelter caches located in Morgan County and Cooper County. The caches include animal crates (large, medium and small), leashes, litter and litter boxes. Humane Society of Missouri may also be contacted for additional assistance and supplies.

SHELTERING IN PLACE

During human evacuation, the only option to protect human life may be to leave animals in place. Animals that are left behind should be secured with appropriate food, water and shelter.

An animal water and feed recommendations table is located as an appendix to this chapter. Every practical effort should be made to leave animals with enough food and water for their survival (enough for 48 hours). After the initial impacts of the disaster, decisions can be made regarding animal rescue efforts.

AGRICULTURAL ANIMAL DISASTER MANAGEMENT

To protect human life, it may be necessary for persons to evacuate the premises and leave animals behind. Protecting human life should always take priority. Animals left behind should be secured in appropriate shelters, and food and water should be left for them. The amount of food and water necessary for survival is considerably less than for other purposes. An Animal Water and Feed Recommendations table can be found in Appendix 7 and used as guidance.

Whenever possible, large animals should always be sheltered in place. There is no statutory requirement for sheltering large animals.

If there is a necessity and means to evacuate large animals, considerations for prioritizing the animals needing to be moved may include:

- Sale value
- Breeding quality
- Stage of pregnancy
- Stage of production
- Sentimental preference

Disaster preparedness by large animal owners should include identifying these animals ahead of time and maintaining written documentation

Restraint equipment, feed and water supplies should be available to use and move with the animals. The animals should be photographed and permanently identified by metal ear tag, tattoo, brand, registration papers or microchip. Papers documenting the identification should be kept with other important papers. Ultimately, the decision to evacuate will depend on the distance to be traveled, the amount of time before the disaster will affect the farm, and whether there is any advantage to moving the animals to the place selected. Sometimes evacuation may be done after the disaster, provided the roads are passable and the equipment needed for travel is usable.

Animal evacuation routes must not interfere with human evacuation routes. Alternate routes should be found in case the planned route is not accessible. Places where animals are to be taken should be decided in advance and arrangements made with the owners of these places to accept the animals. If this is the case, the accepting location must be contacted to find out its condition.

WILD ANIMALS

Wild animals out of their natural habitat that are endangering either themselves or the human population will be the responsibility of Missouri Department of Conservation.

VETERINARY SERVICES

A list of Boone County veterinary services is available from the Boone County Office of Emergency Management.

SPECIAL CONSIDERATIONS

Some practices that may be followed in planning for disasters, especially during the winter, require special considerations. During winter weather it is common to use portable heaters, gritty substances on the floor to prevent slipping, and antifreeze. When using these heaters, be sure they are working properly and are in an area where there is adequate ventilation. Heaters not working correctly could be a source of carbon monoxide. Antifreeze used in vehicles is a deadly poison. Animals seem attracted to it and will readily consume it because of its sweet taste. Take care to properly label all containers. Do not use containers previously filled with antifreeze for other purposes, especially feed and water. Promptly clean up all leaks and spills. Water supplies should be checked for freezing. Many animals have died of thirst during the winter, even with abundant water sources, because they could not drink the water as it was frozen solid. If gritty material is spread on floors to prevent slipping, use only approved nontoxic materials.

Farms can be insured against catastrophic events. Insurance policies are available for replacement of damaged materials, repair work for recovery, boarding of evacuated occupants and animals, lost production, and relocation. These should be investigated and purchased before the disaster threatens. For a farmer to claim compensation for lost production, which in many cases is the largest economic cost during a disaster, the farmer must have substantial records that document the level of production his/her herd has achieved in previous years. This is generally only successful in herds with recognized herd monitoring programs, such as Dairy Herd Improvement or other programs that are available for various species. To verify the validity of these records a herd health program, based on a valid veterinarian-client-animal relationship, should be in place. A copy of all production records should be kept in a secure place so that the details are not lost during the disaster. Many veterinarians are willing to keep copies of their clients' production records, if they are computerized and space efficient.

The evacuation of the human population can create an animal emergency in that many pet owners will leave their animal behind or may refuse to evacuate without their pets. Red Cross shelters will not accept pets; thus, citizens may refuse to go to a shelter unless their pets can stay with them. Many disasters leave large numbers of animals as strays that must be captured and accounted for. Many illnesses that affect humans will affect the animal population first, causing a public health threat due to decomposing carcasses.

The ACD provides services for the City of Columbia, Rocheport, Harrisburg, Hartsburg, and unincorporated areas of Boone County. Ashland, Centralia, Sturgeon, and Hallsville maintain their own animal control services. ACD is also responsible for public health hazard and zoonotic illness prevention and safety. While OEM is responsible for the overall coordination of animal services in a disaster, the ACD will be the lead agency under ESF-6 for disaster pet sheltering and care within the geographic areas under their jurisdiction. PHHS provides staff to serve as the liaison to the Boone County EOC regarding animal sheltering and care needs.

PHHS ACD will coordinate the following during a disaster:

- The identification of facilities for displaced pets and animals in coordination with the Red Cross, BCOEM, and the Central Missouri Humane Society. The ACD maintains detailed SOGs for the processing of animals.
- The removal and proper disposal of animal waste and dead animals.
- The capture and transportation of displaced animals.
- The provision of necessary animal medical care with veterinarians.
- The diagnosis, prevention, and containment of zoonotic diseases and other animal related conditions of public health significance in coordination with the Missouri Department of Agriculture, the USDA and local veterinarians.
- The provision of public information relevant to the care and safety of the animal population.

The Department of Health and Senior Services, Department of Agriculture and the Humane Society of Missouri are additional resources that may be requested through SEMA if the event will require mid to long-term resources.

FOREIGN ANIMAL DISEASE/OTHER ANIMAL DISEASE OUTBREAKS

The Columbia/Boone County Department of Public Health and Human Services is responsible for the diagnosis, prevention, and containment of zoonotic diseases and other animal related conditions of public health significance in coordination with the MDA, the USDA, and local veterinarians.

The Missouri Department of Agriculture (MDA) is tasked with dealing with infectious animal diseases and has the authority to work with local officials and responders for suppression and prevention of infectious and contagious diseases among animals in the state per RSMO 267.

Animal disaster operations will be coordinated through the EOC and employ the ICS/NIMS. The incident commander should initially be the MDA District Veterinarian or a state or federal Foreign Animal Disease Diagnostician (FADD) on site. Appendix 4 represents a potential ICS organizational chart for a FAD/AD outbreak.

Due to their complexity, response functions for foreign animal disease or other infectious animal disease outbreaks (FAD/AD) will vary based on the disease in question. See Figure 11-1 for FAD/FAA Incident Typing associated with incident complexity.

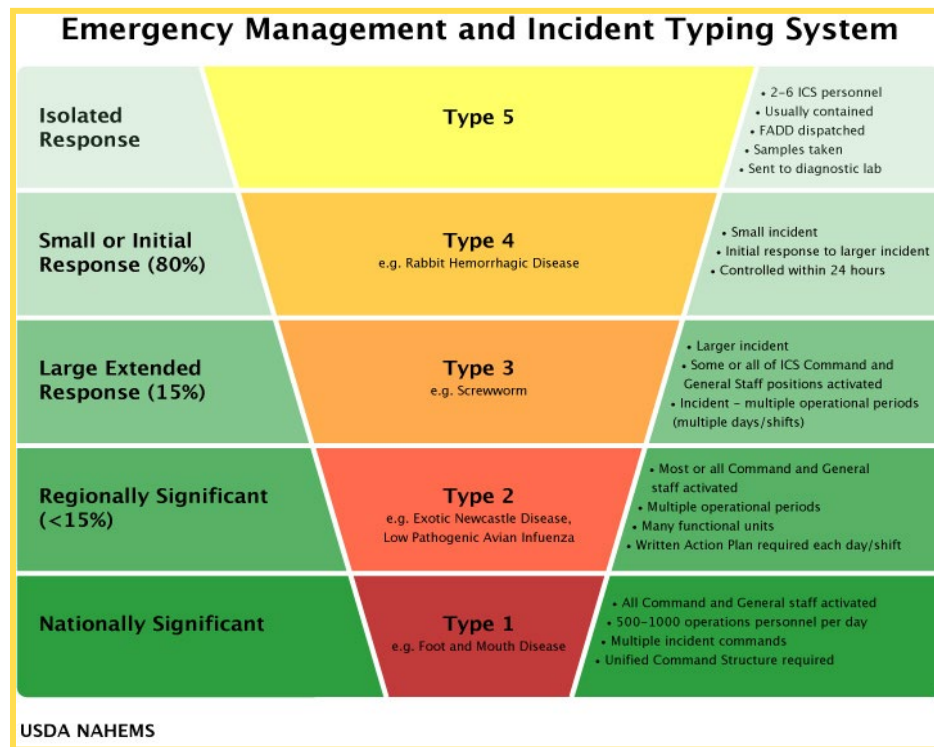


Fig. 11-1

Disease characteristics to consider when establishing a response include stability of the agent, route of transmission, incubation time, potential species affected, and transfer to humans (zoonotic) potential. Numerous local, state and federal agencies will play a role in eradicating an infectious animal disease.

A coordinated local response is necessary to effectively deal with an animal disease crisis - be it natural or deliberate - to minimize the consequences as quickly as possible. Notification up to the level of United States Department of Agriculture (USDA) will take place as soon as a positive diagnostic test result is obtained, or perhaps even on strong suspicion of a FAD by the FADD before the test results are in. This will likely happen within the first 24 hours but, depending on the size and nature of the event, state or federal assistance to deal with an FAD/AD may not be available for several hours or days. Local resources will be utilized while awaiting state or federal resources, as timely response is critical for animal tracing and control procedures.

The identification of a FAD/AD outbreak anywhere in Missouri would result in the creation and enforcement of containment and control procedures, and movement controls of people, livestock, agricultural products and other property.

Suspected or positive detection of a FAD/AD in Boone County will prompt local, state and/or federal officials to employ additional precautions to prevent or mitigate the possibility of spreading the disease. Any response to a suspected FAD/AD outbreak will be in coordination with the State Veterinarian and the Boone County Emergency Manager (EMD). The County and municipal governments will utilize their

available resources in any response effort. The EMD will coordinate with stakeholder agencies to support the needs of the response. The EMD (with the approval of the County Commission) may designate an individual to serve as a County Animal Emergency Coordinator (CAEC). This should be a licensed veterinary medicine practitioner or other animal health professional. Additional assistance may be requested through SEMA.

When an initial suspected case of an FAD/AD is observed, a local veterinarian is required to immediately notify the State Veterinarian or Area Veterinarian in Charge (AVIC), and the MDA.

Mitigation measures may include a “Stop Movement Order” by the State Veterinarian as an immediate action to prevent spreading the disease. Large numbers of domestic livestock and wildlife may need to be depopulated or placed under quarantine or movement control restrictions to prevent the spread of a confirmed disease. Depopulation of animals will be conducted in the most humane, expeditious manner to stop the spread of the disease and limit the number of animals affected.

An investigation by a Foreign Animal Disease Diagnostician (FADD) will be initiated to determine the need for quarantine orders. Based on sample analysis, the FADD will notify the State Veterinarian of the diagnosis. Immediate quarantine areas will be required where suspected or confirmed cases may have originated, inside of which increased bio-security measures will be implemented. The zone establishment may require the development of cleaning and disinfecting procedures and additional record keeping by producers and/or veterinarians. If a quarantine is required to contain the spread of disease and/or mitigate the economic impact of a FAD/AD, MDA will establish the quarantine area and protocols to be followed.

If necessary, the State Veterinarian will request State EOC activation. SEMA will coordinate state agencies to assist the local jurisdiction.

Should an incident be ruled a deliberate disease introduction, there will be a law enforcement investigation. The FBI will be the lead agency as this would be considered an act of terrorism.

Facilities and transport vehicles suspected of being contaminated will need to be cleaned and disinfected.

Expedient animal shelters may need to be established and staffed for extended periods in a disaster. This would be particularly true for transient livestock passing through the area if a stop movement order were issued.

Carcass disposal sites will need to be rapidly identified by MDA and the Department of Natural Resources. Potential disposal methods include rendering, landfill, incineration, or on-site burial and/or composting.

All information disseminated regarding a FAD/AD will be from the Public Information Office of MDA, Missouri State Emergency Management Agency (SEMA) or the (USDA). No local press releases should be made due to the extreme sensitivity of this information.

Laboratory animal research facilities, animal shelters, veterinary medical and animal science centers, livestock markets and livestock operations will be encouraged to develop emergency procedures and evacuation plans for the animals in their care and custody. Written plans may be provided to the Boone County Office of Emergency Management for comment and review.

ASSIGNMENT OF RESPONSIBILITIES

PRIMARY RESPONSIBILITIES

The agencies with primary responsibility to this plan are tasked with the following actions:

- Prioritization, allocation and/or tasking of animal care assets in support of disaster relief and recovery efforts.
- Providing liaison(s) and point of contact for ESF-11 at the EOC.
- Maintaining records of costs for supplies, resources and man-hours used in response to the disaster event.
- Maintaining standard operations guidelines (SOGs) that address animal care responsibilities and needs.
- Maintaining lists of potentially available animal care resources.
- Maintaining current mutual aid agreements, memoranda of understanding, and contractual resources to support disaster emergency animal care needs.

COLUMBIA/BOONE COUNTY PUBLIC HEALTH AND HUMAN SERVICES (PHHS)

The PHHS Director and staff of the Animal Control Division are responsible for public health hazards and zoonotic illness prevention and safety, and have the authority to implement and enforce laws, ordinances and regulations related to public health, including animals, in Boone County.

PHHS will work with local veterinarians and local conservation agents to enhance surveillance for zoonotic diseases within livestock, other domestic animal populations, and wild animal populations.

Depending on the disease characteristics, if the disease causes illness in humans, PHHS will be involved in impact assessments on local citizens and suggestions of protective actions. Following existing Emergency Public Information plans, PHHS will coordinate with dissemination of information to the community regarding the human health risks associated with the disease based on guidance from the Missouri Department of Health and Senior Services (DHSS).

Public health officials may also coordinate provision of mental health services to producers, families and others affected by the disease outbreak.

Columbia/Boone County Public Health & Human Services will establish quarantine or isolation measures, if necessary. The Department Director has the authority to require mandatory isolation of patients or animals with a category I or II communicable disease and to quarantine contacts for the protection of public health.

The PHHS Animal Disaster Coordinator (ADC) will coordinate the following during a disaster:

The identification of facilities for displaced pets and animals with the Red Cross, OEM and the Central Missouri Humane Society.

The removal and proper disposal of animal waste and dead animals.

The capture and transportation of displaced animals.

The provision of necessary animal medical care with veterinarians.

The provision of public information relevant to the care and safety of the animal population.

CENTRAL MISSOURI HUMANE SOCIETY

CMHS will partner with the PHHS ADC, the College of Veterinary Medicine, and other area and regional rescue organizations to provide shelter and care for companion animals displaced due to the disaster

SUPPORT RESPONSIBILITIES

BOONE COUNTY COMMISSION

The Commission will determine the need for, and may issue, an emergency proclamation or disaster declaration. An associated activation of the County EOC will occur, if warranted.

The Commission will also activate the County PIO who will coordinate with the MDA PIO for response to animal disease issues, and with the Columbia/Boone County Department of Public Health and Human Services and the MO Department of Health and Senior Services (DHSS) for human public health issues.

BOONE COUNTY OFFICE OF EMERGENCY MANAGEMENT

Boone County OEM will coordinate with the primary and support agencies listed in this annex to identify available resources ensure all resource needs are met.

OEM will gather situational incident information regarding resources, status of infrastructure, evacuation routes, etc., and will coordinate with the PIO(s)/JIC to disseminate pertinent information to the public. Boone County GIS will provide mapping support for these functions.

OEM will also be responsible for gathering cost information from resource providers to prepare for potential declaration of disaster.

Other responsibilities of the OEM for this ESF would include the following:

- Coordinating the activities of the CAEC.
- Maintaining a listing of organizations, resources and points of contact who would have responsibilities in an FAD/AD and other animal emergencies. Emergency contacts and resources can be found in the EOP Contact and Resource list.
- Coordinating with veterinarians, humane organizations, farm service agencies, and animal emergency volunteers on emergency preparedness issues for the county. Inclusion of these animal emergency stakeholders in emergency preparedness training and exercises.
- Providing educational materials and planning guidance to citizen pet and livestock owners.
- Assisting with review of site-specific animal emergency plans.
- Identifying livestock holding and confinement areas.
- Coordinating with PIOs regarding information release.
- Identifying storage sites and staging areas for animal food and medical supplies.
- Coordinating with law enforcement for establishment of quarantine zones and enforcement of animal movement restrictions.
- Supporting coordination of long-term maintenance, placement, or disposition of animals.
- Coordinating plans to house and care for animals and poultry in transit through Boone County for

the duration of a stop movement order.

OEM also manages an emergency pet shelter trailer donated by the American Kennel Club (AKC) which holds administrative supplies, animal leads, muzzles, bowls and crates. A full inventory list of the Boone County Disaster Relief Pet Trailer is attached as Appendix 9. The trailer is housed at the Emergency Communications Center at 2145 County Drive. There are two additional animal shelter caches in Region F – 1 in Morgan County and 1 in Cooper County – that may be requested for additional support.

COUNTY EMERGENCY ANIMAL COORDINATOR (CEAC)

The responsibilities of the CEAC include assisting veterinarians and agriculture officials in making appropriate and timely reports of possible FAD/AD cases, as well as ensuring that the county's veterinarians and other animal health professionals receive communications from the State Veterinarian.

The CEAC will also coordinating with public safety and emergency management officials during disasters or emergency operations.

PUBLIC WORKS DEPARTMENTS

County and municipal public works departments may be asked to assist with perimeter establishments through use of signage and barricades.

Public works agencies may also be able to provide equipment for, and assist with, disposal of dead animals.

LAW ENFORCEMENT AGENCIES

County, municipal and state law enforcement agencies will be required to enforce animal movement and quarantine restrictions in accordance with the State Veterinarian's specifications.

Law enforcement may be requested to assist with euthanasia operations.

In the case of an intentional disease introduction, law enforcement agencies will work cooperatively on the investigation.

FIRE AGENCIES

Fire service and hazardous materials resources may be utilized for decontamination of vehicles, property, personnel and equipment. The State Veterinarian's office will directly, or through the State Emergency Operations Center, provide decontamination protocols appropriate for the confirmed or suspected disease.

Fire agencies along with the Boone County Large Animal Technical Rescue Team will conduct animal rescues.

MO DEPARTMENT OF AGRICULTURE

MDA will establish an organizational structure, chain of command and outline duties and responsibilities for any FAD/AD response.

The MDA State Veterinarian or AVIC will be integrated into the incident command system to provide technical assistance and will provide quarantine and restricted movement protocols based on the specifics of the event. The State Veterinarian or their designee will secure supplies, equipment, personnel and technical assistance from support agencies, organizations and other resources to carry out the response

plans associated with animal health emergency management. MDA will augment veterinary medical services to expedite rapid recovery by contacting the Missouri Veterinary Medical Association (MVMA).

MDA district veterinarians are responsible for administering state and cooperative state-federal animal health programs, acting as a designated official of, and liaison to, the state veterinarian when conducting investigations, initiating quarantines, or providing veterinary resources to the local level. This position may also assist and guide euthanasia operations.

The District Veterinarian may be working on scene or in the EOC.

The State Veterinarian or the AVIC will lift quarantines and stop movement orders that were put in place during the FAD/AD outbreak when appropriate epidemiologic data is present.

MO DEPARTMENT OF HEALTH AND SENIOR SERVICES - STATE PUBLIC HEALTH VETERINARIAN

Provides advice and technical assistance regarding public health issues, particularly zoonotic diseases (diseases that can pass from animals to humans).

Coordinates with local public health agencies and/or medical facilities to ensure all animal responders have tetanus vaccinations available.

Provides public information concerning diseases via the Joint Information Center (JIC).

Provides public health technical assistance to DNR in identifying disposal sites within local jurisdictions.

Provides technical assistance to local public health agencies to ensure proper selection and availability of special medications for zoonotic diseases.

MO DEPARTMENT OF TRANSPORTATION AND MO DEPARTMENT OF NATURAL RESOURCES

Coordinate resources available to respond to an incident.

Perimeter routing and logistic support.

Advise on and support disposal site selection and disposal resources.

MO VOLUNTARY VETERINARY CORPS (MOVVC)

The mission of the Missouri Voluntary Veterinary Corps is to provide veterinarians and veterinary paraprofessionals as assets in support of government and nongovernment actions in response to the needs of animals and animal owners during disasters.

The MOVVC goals are to provide volunteers with training in NIMS, ICS, animal disaster response, emergency animal shelter training.

MOVCC members may be requested through SEMA, DHSS or the MO Department of Agriculture.

DIRECTION AND CONTROL

Boone County government, response agencies, and the municipalities within the county have adopted the National Incident Management System (NIMS) and the Incident Command System (ICS) as the standard for incident response and management.

In accordance with federal mandates, management of local disasters and emergencies will be initiated and conducted using the concepts and principles of NIMS. On-scene management and coordination of responses will utilize ICS.

Animal care activities and missions will be coordinated by the ESF-11 representative or coordination group, with the supporting and assisting agencies retaining administrative direction and control over their resources. Coordination will be established with the EOC (if activated) and/or IC to prioritize and develop strategies and missions for response and recovery.

Priorities will continually be reassessed to develop strategies and address the most critical needs.

ESF-11 liaisons from primary and support agencies may locate to, and operate from, the EOC, or may retain a virtual presence with the EOC. Resources in the field will keep the ESF informed of their activities.

CONTINUITY AND SUCCESSION

Succession planning is maintained at an agency level.

Records vital to the ESF-11 functions should be duplicated and stored at another location.

ADMINISTRATION AND LOGISTICS

Specific operating procedures and protocols are maintained by the participating organizations.

Facilities and points of contact are maintained in the EOP Contact and Resource Guide

Mutual aid agreements, memoranda of understanding and contractual resource lists regarding transportation operations are maintained within individual agencies.

Procedures for use of forms, compiling information, and providing data to the EOC are in the EOC SOG.

If possible, procurement of necessary supplies will be accomplished through normal acquisition channels. Supplies and other resources will be coordinated by ESF-7 Logistics.

Basic administrative and accountability procedures for any animal emergency will be followed as required by county government and state regulations. As with any disaster/incident response, the ICS/NIMS will be used to organize and coordinate response activity. In the event an incident is suspected, or determined, to be a terrorist event, the FBI will be the lead agency in all aspects of the incident to include all PIO functions at a JIC.

FAD/AD scenarios are included in the jurisdictions multi-year exercise cycle.

Agro-terrorism is included in the jurisdictions hazard analysis.

The EOC will provide support and resources at the request of the incident commander.

APPENDICES

Appendix 1: Boone County Livestock Locations

Attachment A – Cattle Map

Attachment B – Equine Map

Attachment C – Swine Map

Attachment C – Sheep Map

Attachment D – Exotic Animals Map

Appendix 2: Reportable Communicable Animal Diseases

Appendix 3: MDA Guidelines and Information for Response

Appendix 4: ICS Organizational Chart for a FAD/AD

Appendix 5: Boone County and Missouri Isolation and Quarantine Laws

Appendix 6: Livestock Evacuation Kits

Appendix 7: Daily Animal Water and Feed Recommendations

Appendix 8: Euthanasia Guidelines

Appendix 9: MO DNR Animal Production Mortalities Emergency Procedures

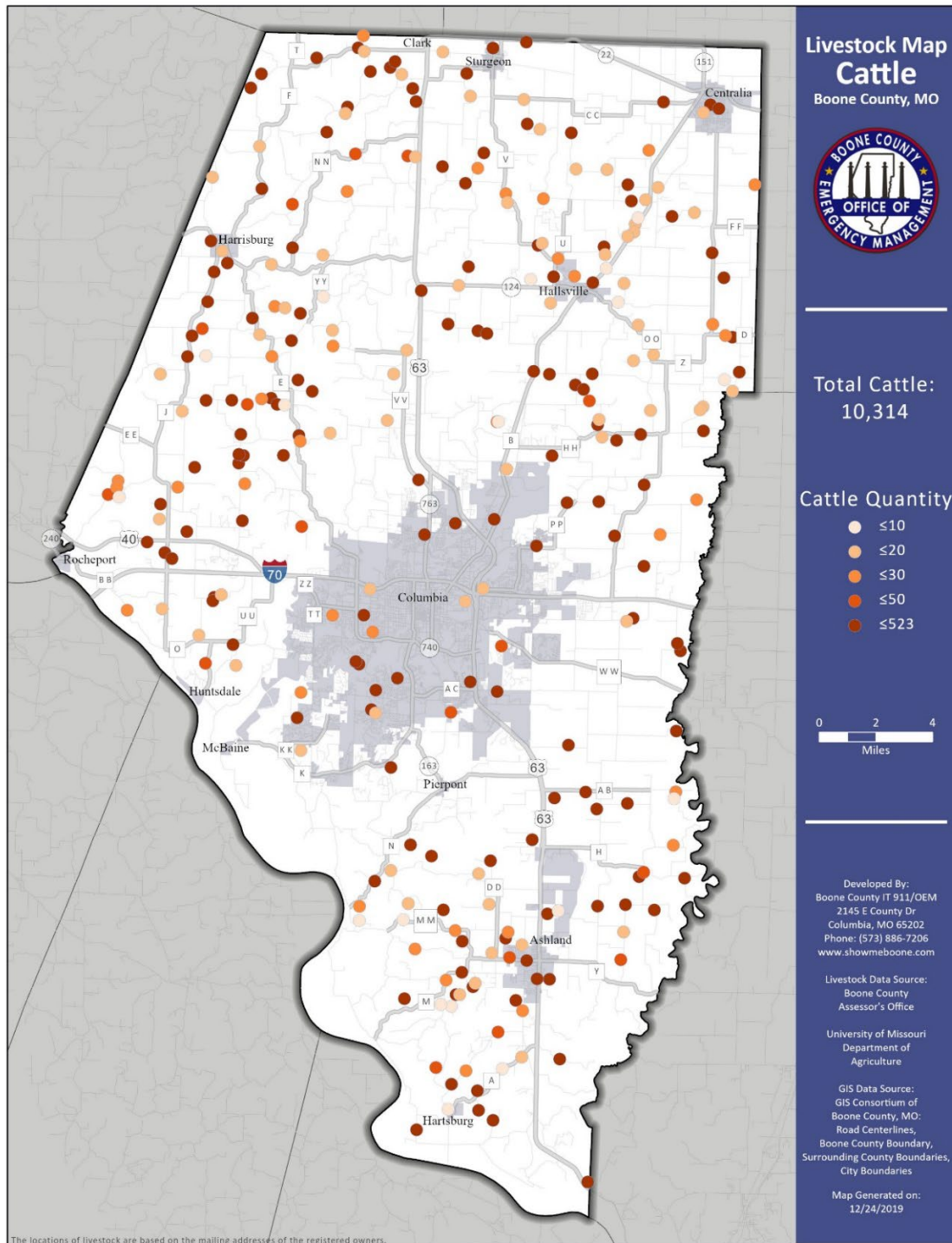
Appendix 10: RSMO 269.020 Disposal of dead animals

Appendix 11: AKC Disaster Relief Pet Trailer Inventory

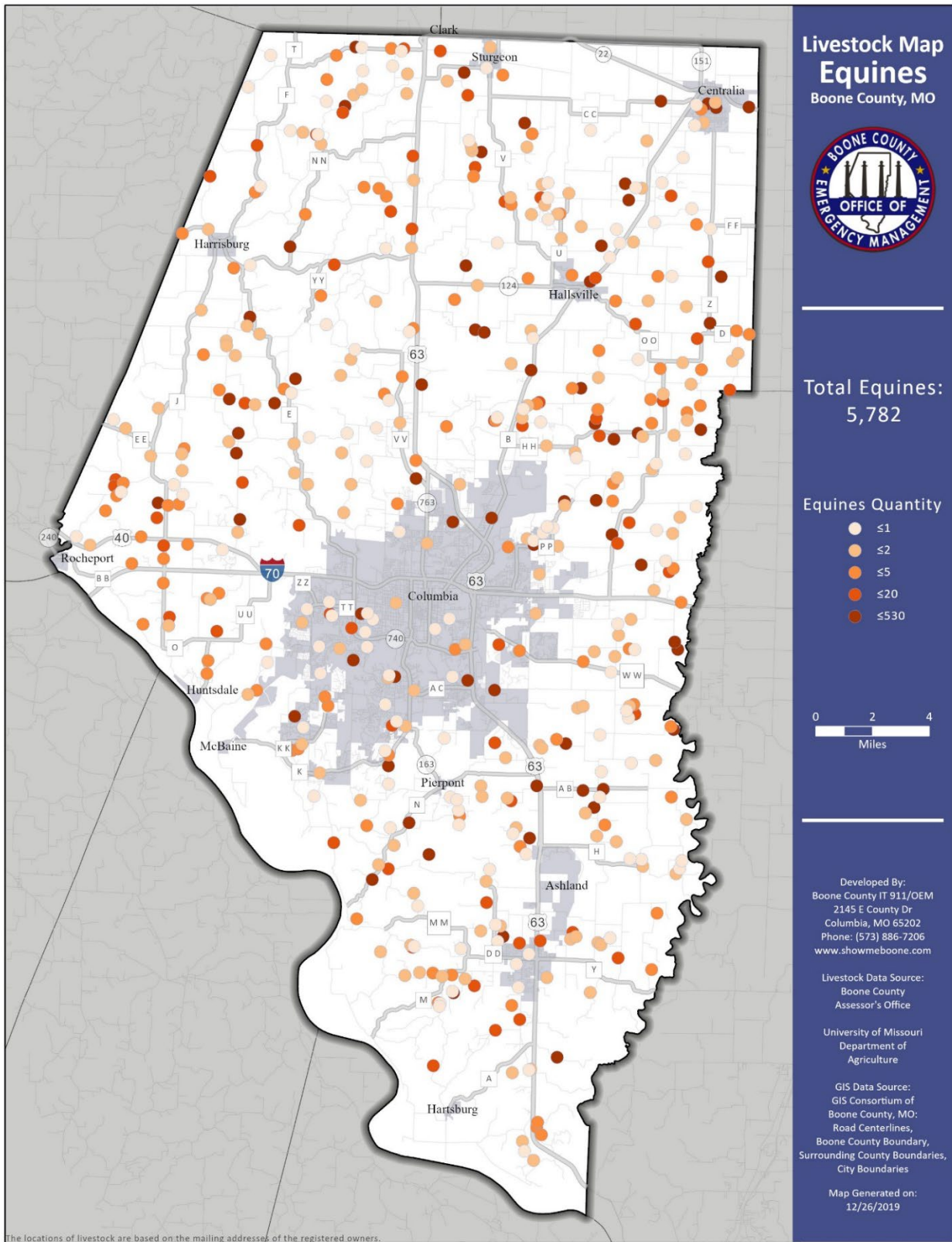
ESF-11 APPENDIX 1: BOONE COUNTY LIVESTOCK LOCATIONS

**The information portrayed in these maps is based on data from the Boone County Assessor's Office - 2019.*

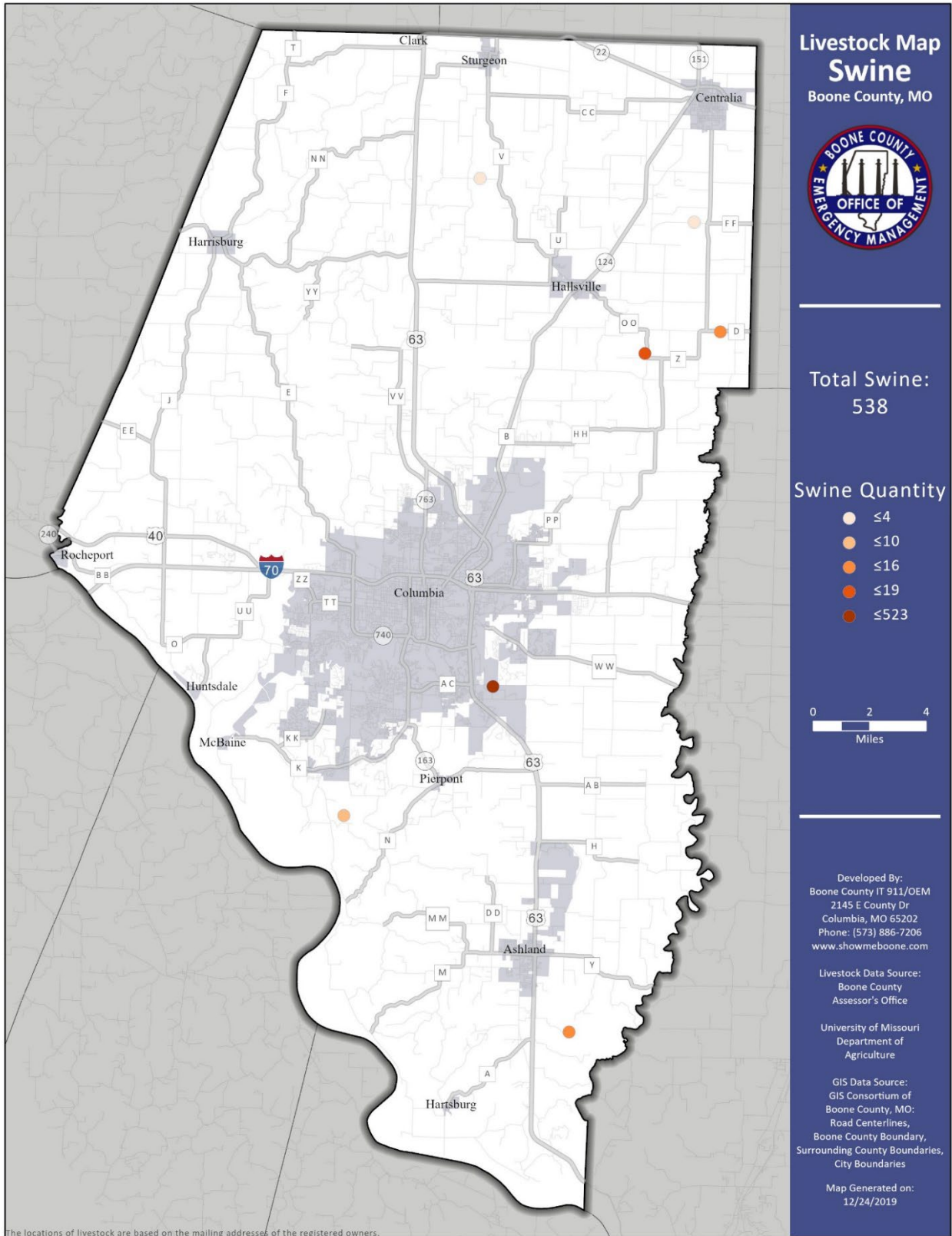
ESF-11 APPENDIX 1: ATTACHMENT A – CATTLE MAP



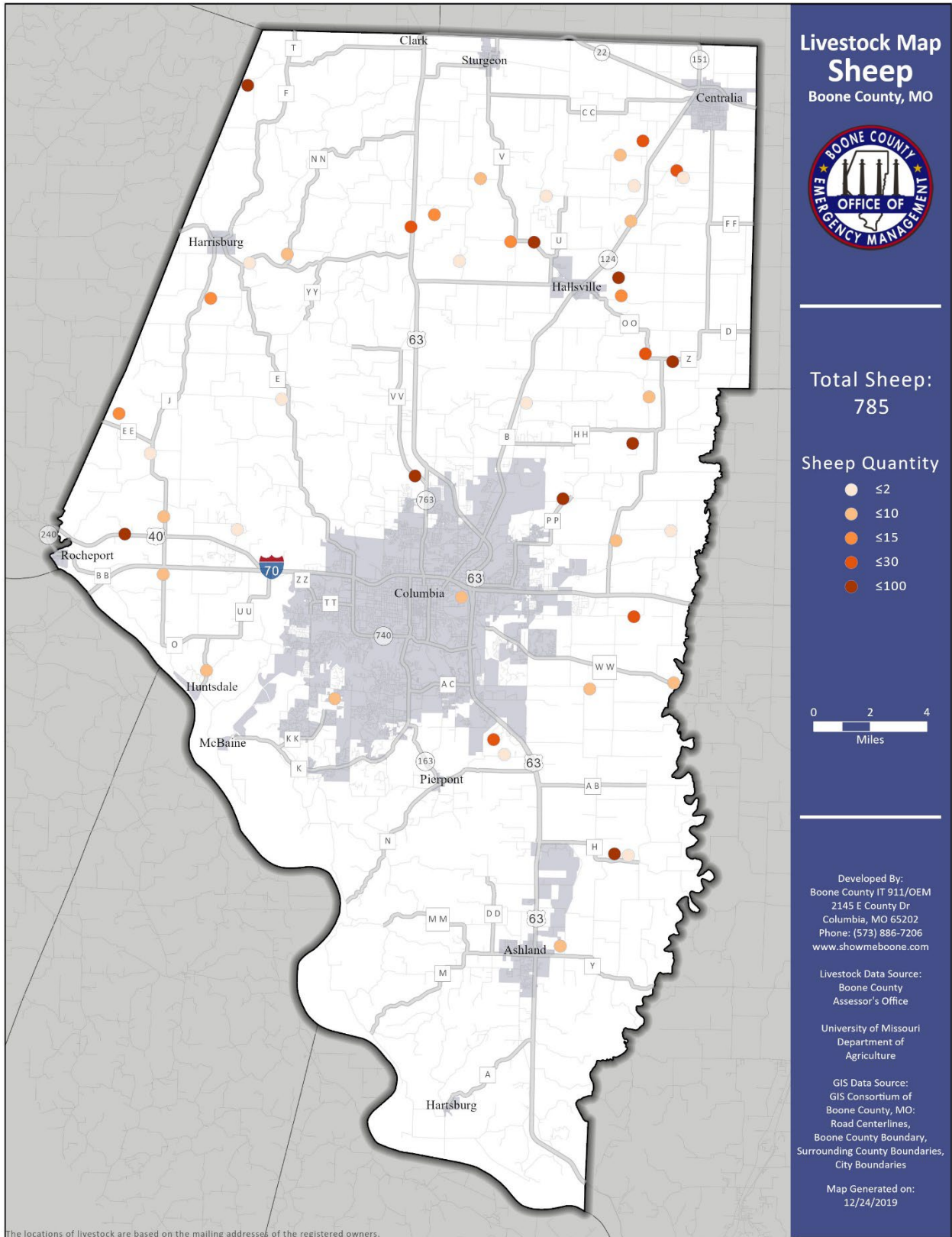
ESF-11 APPENDIX 1: ATTACHMENT B – EQUINE MAP



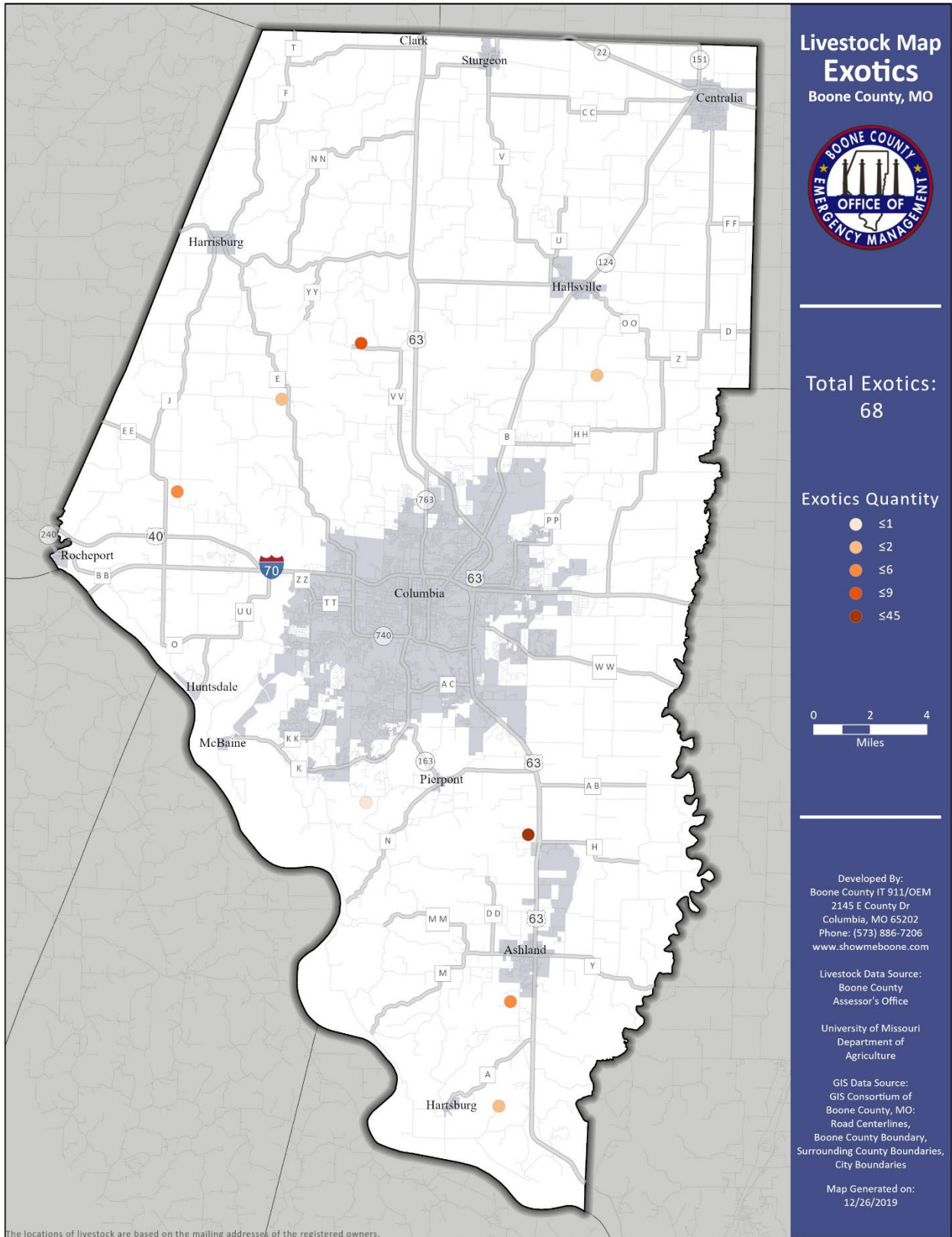
ESF-11 APPENDIX 1: ATTACHMENT C – SWINE MAP



ESF-11 APPENDIX 1: ATTACHMENT D – SHEEP MAP



ESF-11 APPENDIX 1: ATTACHMENT E – EXOTIC ANIMALS MAP



ESF-11 APPENDIX 2: REPORTABLE DISEASES

The following are reportable diseases that must be reported to the Missouri Department of Agriculture (573) 751-3377 or federal officials (573) 658-9850 within 24 hours of suspicion or diagnosis:

Avian (Poultry, chickens, turkeys & birds)

- Avian infectious encephalomyelitis
- Avian influenza (High pathogenic, H5, H7)
- Infectious laryngotracheitis
- Newcastle disease (VVND)

Bovine (Cattle & Bison)

- Anthrax
- Bluetongue
- Bovine babesiosis (Texas fever, piroplasmosis)
- Bovine spongiform encephalopathy (BSE)
- Brucellosis
- Contagious bovine pleuropneumonia
- Foot-and-mouth disease
- Heartwater
- Pseudorabies
- Rift valley fever
- Rinderpest (cattle plague)
- Screwworm
- Tuberculosis
- Trichomoniasis
- Vesicular stomatitis

Canine (Dogs) - Feline (Cats)

- Rabies

Caprine (Goat) - Ovine (Sheep)

- Brucellosis caused by *Brucella melitensis* and *B. ovis*
- Foot-and-mouth disease
- Goat and sheep pox
- Heartwater
- Peste des petits ruminants (kata)
- Rift Valley fever
- Scabies
- Scrapie
- Screwworm
- Tuberculosis
- Vesicular stomatitis

Equine (Horses)

- African Horse sickness
- Babesiosis (piroplasmosis)
- Contagious equine metritis
- Dourine (equine trypanosomiasis)
- Eastern equine encephalomyelitis
- Equine infectious anemia (EIA)
- Equine piroplasmosis
- Equine rhinopneumonitis
- Equine viral arteritis
- Glanders
- Venezuelan equine encephalomyelitis
- Vesicular Stomatitis
- Western equine encephalomyelitis

All Species

- Anthrax
- Brucellosis
- Pseudorabies
- Rabies
- Screwworm
- Tuberculosis
- Vesicular stomatitis

Porcine (Swine, pigs & feral swine)

- African swine fever
- Brucellosis
- Classical swine fever (Hog cholera)
- Foot-and-mouth disease
- Pseudorabies
- Swine vesicular disease
- Vesicular stomatitis

Cervidae (Elk & deer)

- Chronic Wasting Disease (CWD)
- Foot-and-mouth disease
- Tuberculosis

<http://agriculture.mo.gov/animals/health/disease/comdisease.php>

ESF-11 APPENDIX 3: MDA GUIDELINES AND INFORMATION FOR RESPONSE

For MDA to respond to a local request, an animal disease must meet one or more of the following criteria:

- It falls outside of the domain of the state’s routine prevention and response activities and capabilities;
- It is highly contagious, and therefore creates a significant risk of rapid transmission across a large geographical area, including non-contiguous area;
- It creates the potential to cause widespread personal hardship within the agricultural community and/or is detrimental to the state or national economy.
- It is one of the International Animal Health Code List diseases, as designated by the *Office International des Epizooties (OIE)* which includes the following diseases*:

Foot and mouth disease
Swine vesicular disease
Peste des petits ruminants
Lumpy skin disease
Bluetongue
African horse sickness
Classical swine fever
Newcastle disease
Vesicular stomatitis
Rinderpest
Contagious bovine pleuropneumonia
Rift Valley fever
Sheep pox and goat pox
African swine fever
Highly pathogenic avian influenza

*MDA will furnish all county EMD’s with a reportable disease symptoms card for livestock and poultry as requested.

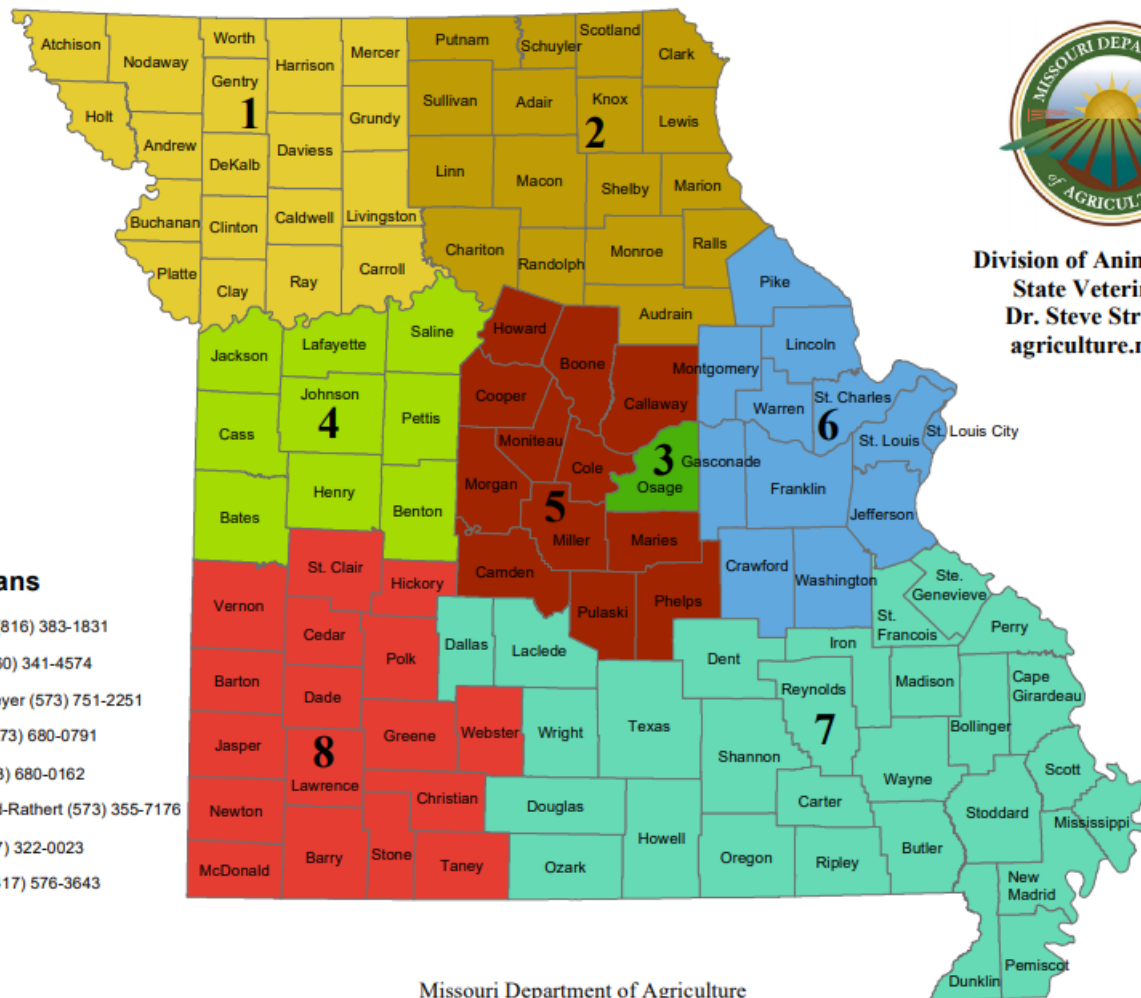
Veterinarian Districts of Missouri



Division of Animal Health
State Veterinarian
Dr. Steve Strubberg
agriculture.mo.gov

District Veterinarians

- 1 Dr. John Lawrence (816) 383-1831
- 2 Dr. Tonya Collop (660) 341-4574
- 3 Dr. Sarah Reinkemeyer (573) 751-2251
- 4 Dr. Royce Wilson (573) 680-0791
- 5 Dr. Dane Henry (573) 680-0162
- 6 Dr. Charlotte Clifford-Rathert (573) 355-7176
- 7 Dr. Jeff Jenkins (417) 322-0023
- 8 Dr. Valerie Gaeke (417) 576-3643



Missouri Department of Agriculture
P.O. Box 630
1616 Missouri Boulevard
Jefferson City, Missouri 65102

Updated: February 5, 2021

Dr. Steve Strubberg, DVM State Veterinarian
Missouri Department of Agriculture
Animal Health Division
P.O. Box 630
1616 Missouri Boulevard
Jefferson City, MO 65102
Phone: 573-751-3377
Fax: 573-751-6919
Email: Animal.Health@mda.mo.gov
Website: mda.mo.gov/

Jean Schmidt, DVM, Assistant State Veterinarian
(573) 522-8615
(573) 469-8067 - cell phone

MO Department of Agriculture District Veterinarians

District 1 - **John Lawrence, DVM**, State Field Veterinarian
(816) 383-1831 - cell phone

District 2 - **Tonya Collop, DVM**, State Field Veterinarian
(660) 341-4574 - cell phone

District 3 - **Sarah Reinkemeyer, DVM**, State Field Veterinarian
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District 4 - **Royce Wilson, DVM**, Federal Field Veterinarian
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District 5 - **Dane Henry, DVM**, Federal Field Veterinarian
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District 6 - **Charlotte Clifford-Rathert, DVM**, Federal Field Veterinarian
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District 7 - **Jeff Jenkins, DVM**, State Field Veterinarian
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District 8 - **Valerie Gaeke, DVM**, State Field Veterinarian
(417) 576-3643 - cell phone

Animal Health Officers Field Staff

Brandon Pleimann (State), (573) 421-2194

Bradley Schofield (State), (417) 414-3218

Jefferson City Lab

(573) 751-3460

Fax: (573) 751-5279

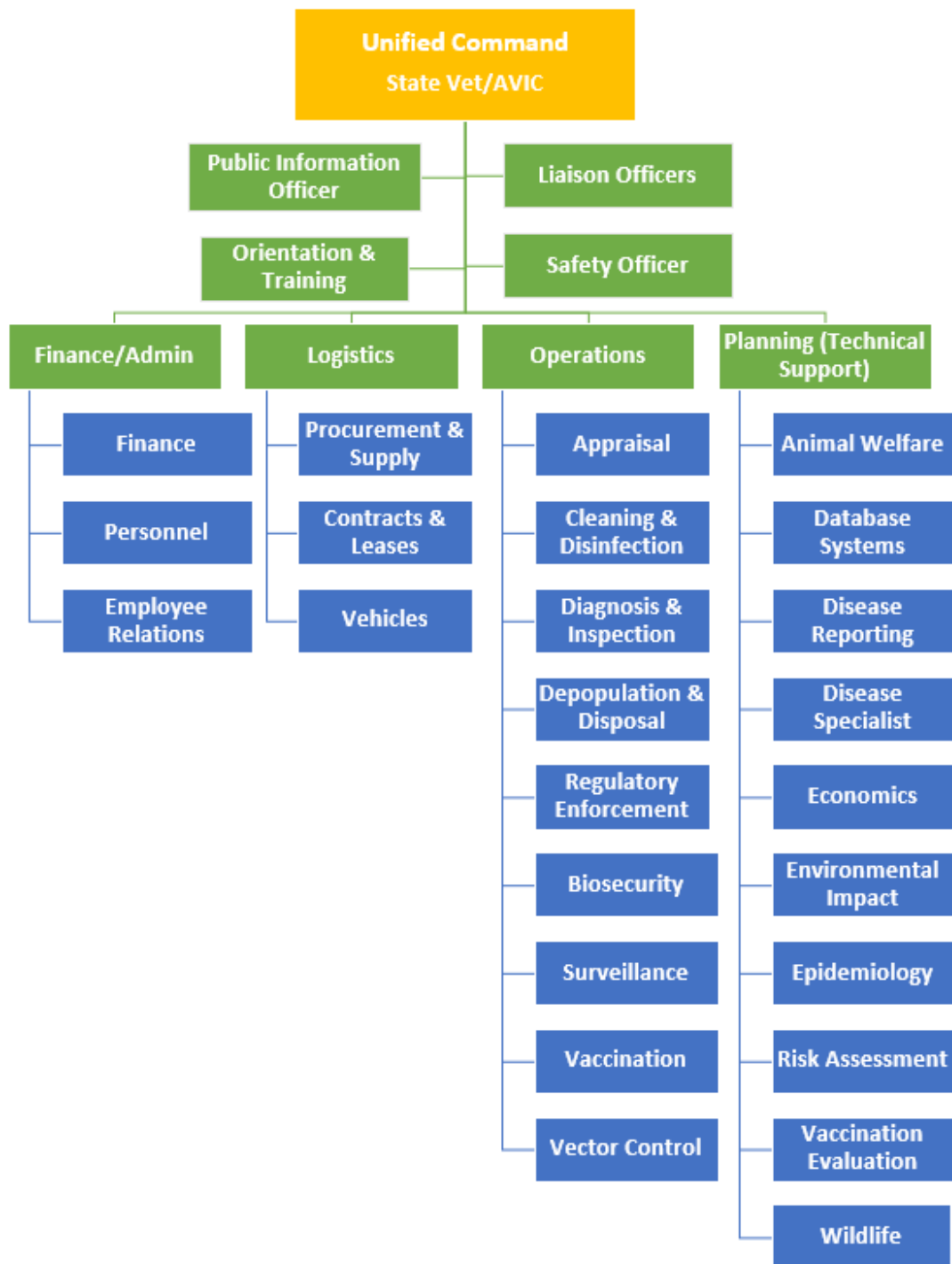
Springfield Lab

(417) 895-6861

Fax: (417) 831-4766

Latest information 03/23/2021 - <https://agriculture.mo.gov/animals/health/staff.php>

ESF-11 APPENDIX 4: ICS ORGANIZATIONAL CHART FOR A FAD/AD



ESF-11 APPENDIX 5: BOONE CO AND MO ISOLATION AND QUARANTINE LAWS

Boone County Ordinance Chapter 11- Animal Control – Isolation and Quarantine

Authority: These regulations are enacted under authority vested in the County Commission of Boone County, Missouri by section 192.300, RSMo, and sections 322.090 - .130, RSMo.

2.7.6 Isolation and Quarantine - The Health Director may order the temporary isolation or quarantine of domestic or wild animals reasonably suspected of having a contagious communicable disease which may directly or indirectly effect human health or food or water supplies until such time as the state veterinarian or other state or federal agency having jurisdiction assumes responsibility for animal disease management and determination of the need for further disease control measures.

2.8 Jurisdiction: The regulations contained in this chapter shall be applicable to all unincorporated areas within Boone County, Missouri, and by order of the Boone County Commission in incorporated municipalities which petition to be included. Any petitioning municipality shall also be defined as an urban service area under section 2.4.3 if the petition so requests.

Missouri Code of State Regulations. Title 19 - Department of Health and Senior Services. Division 20 - Division of Community and Public Health. Chapter 20 - Communicable Diseases. 19 CSR 20-20.050 Quarantine or Isolation Practices and Closing of Schools and Places of Public and Private Assembly

(1) The local health authority, the director of the Department of Health and Senior Services or the director's designated representative shall require isolation of a patient or animal with a communicable disease, quarantine of contacts, concurrent and terminal disinfection, or modified forms of these procedures necessary for the protection of the public health. The isolation of a patient, animal or contact shall be carried out according to the methods of control in 19 CSR 20-20.040(1).

(2) No person or animal infected with or suspected of having a communicable disease listed in 19 CSR 20-20.020(1)-(3) or any contact of a disease subject to quarantine or isolation shall move or be moved from one (1) health jurisdiction to another, unless necessary for medical care, without notice to and consent from the local health authority, the director of the Department of Health and Senior Services or the director's designated representative. If a person is moved for the reason of medical care, the health authority who ordered the isolation or quarantine shall be notified within seventy-two (72) hours.

(3) The local health authority, the director of the Department of Health and Senior Services or the director's designated representative is empowered to close any public or private school or other place of public or private assembly when, in the opinion of the local health authority, the director of the Department of Health and Senior Services or the director's designated representative, the closing is necessary to protect the public health. However, in a statewide pandemic, only the director of the Department of Health and Senior Services or the director's designated representative shall have the authority to close a public or private school or other place of public or private assembly. The director or designated representative shall consult with the local health authorities prior to any such closing. Any school or other place of public or private assembly that is ordered closed shall not reopen until permitted by whomever ordered the closure.

AUTHORITY: section 192.020, RSMo Supp. 2006. This rule was previously filed as 13 CSR 50-101.061. Original rule filed Dec. 11, 1981, effective May 13, 1982. Emergency amendment filed June 15, 2007, effective July 6, 2007, expired Jan. 1, 2008. Amended: Filed June 15, 2007, effective Jan. 30, 2008.

ESF-11 APPENDIX 6: LIVESTOCK EVACUATION KITS

<https://www.avma.org/public/EmergencyCare/Pages/Large-Animals-and-Livestock-in-Disasters.aspx>

Equine and other livestock for 7-10 days:

Feed, supplements, hay and water
Bandanas (to use as blindfolds)
Batteries (flashlight, radio)
Blankets
Copies of veterinary records including current vaccinations and negative Coggins test result for horses
Duct tape
Emergency contact list
First aid kit
Flashlight
Fly spray
Grooming brushes
Heavy gloves (leather)
Hoof knife, hoof nippers, hoof pick, hoof rasp
Instructions – for diet and medications of animals. Include veterinary and pharmacy information.
Knife (sharp, all-purpose)
Leg wraps and leg quilts
Maps of local area and alternate evacuation routes in addition to GPS (in case of road closures)
Non-nylon halters and leads (leather/cotton)
Nose leads
Paper towels and trash bags
Plastic trash cans with lids (can be used to store water)
Portable livestock panels
Proof of ownership
Radio (solar, hand cranked and/or battery operated)
Rope or lariat
Shovel
Tarpaulins
Twitch
Water buckets
Whip/prods
Wire cutters

Poultry for 7-10 days:

Plastic poultry transport crates/coops with enough feeders and waterers
Leg bands with an emergency telephone number and photos of birds for identification
Feed and water. Vitamin and electrolyte packs (stress packs)
Detergent, disinfectant, gloves and other cleaning supplies for cleaning cages.
Extra absorbent bedding material (newspapers can work temporarily) to line cages or temporary coops.
If evacuating chicks, consider their special needs (heat, food, equipment).

ESF-11 APPENDIX 7: DAILY ANIMAL WATER AND FEED RECOMMENDATIONS

ANIMALS	WATER/DAY	FEED/DAY
DAIRY COWS		
IN PRODUCTION	9 GALLONS SUMMER	20 POUNDS HAY
	7 GALLONS WINTER	
DRY COWS	9 GALLONS SUMMER	20 POUNDS HAY
	7 GALLONS WINTER	
WEANING COWS	6 GALLONS SUMMER	8-12 POUNDS HAY
	3 GALLONS WINTER	
PREGNANT	7 GALLONS SUMMER	10-15 POUNDS
	6 GALLONS WINTER	
COW WITH CALF	9 GALLONS SUMMER	12-18 POUNDS
	8 GALLONS WINTER	
CALF (400 POUNDS)	6 GALLONS SUMMER	8-12 POUNDS
	4 GALLONS WINTER	
SWINE		
BROOD SOW WITH LITTER	4 GALLONS SUMMER	8 POUNDS GRAIN
	3 GALLONS WINTER	
BROOD SOW (PREGNANT)	1-2 GALLONS SUMMER	2 POUNDS GRAIN
	1 GALLON WINTER	
150 POUND GILT OR BOAR	1 GALLON	3 POUNDS GRAIN
SHEEP		
EWE WITH LAMB	1 GALLON	5 POUNDS HAY
EWE, DRY	3 QUARTS	3 POUNDS HAY
WEANING LAMB	2 QUARTS	3 POUNDS HAY
POULTRY		
LAYERS	5 GALLONS/100 BIRDS	17 POUNDS/100 BIRDS
BROILERS	5 GALLONS/100 BIRDS	10 POUNDS/100 BIRDS
TURKEYS	12 GALLONS/100 BIRDS	40 POUNDS/100 BIRDS
HORSES		
ALL BREEDS	5 GALLONS/1000 POUNDS	20 POUNDS HAY/1000 POUNDS
DOGS AND CATS		
ALL BREEDS	1 QUART/DAY/ANIMAL	AD LIBITUM DRY FOOD

Adapted from the U.S. Department of Agriculture and the Florida Animal Disaster Planning Advisory Committee (ADPAC)

ESF-11 APPENDIX 8: EUTHANASIA GUIDELINES

Code	Regulations	Who may perform	Who may possess	Method	Emergency Euthanasia
V.A.M.S. 273.325 Definitions V.A.M.S. 273.335 Substantial ongoing risk to health and welfare of animals, temporary or permanent injunction-- animals in pain or diseased taken into custody for euthanasia, when, costs to licensee	2 Mo. Code of State Regulations 30- 9.010 Animal Care Facilities Definitions 20 Mo. Code of State Regulations 2270 -4.060 Minimum Standards for Supervision	Licensed veterinarians Temporary licensee under the direct supervision of a licensed veterinarian Registered veterinary technician under the immediate supervision of a licensed veterinarian Veterinary student under the immediate supervision of a licensed veterinarian	Veterinary clinics Animal shelters or licensed facilities	Lawful techniques deemed acceptable by the American Veterinary Medical Association Panel on Euthanasia	N/A

Last updated June 2018 by AVMA

Ensure euthanasia is performed under the supervision of a veterinarian and according to Euthanasia Guidelines established by the American Veterinary Medical Association;

Make every effort to contact an animal's owner before euthanasia is carried out;

If possible, obtaining the animal owner's signed consent for euthanasia—consent for euthanasia may be required by law in some states;

Ensuring owners are aware that they have the option to transport their animal to a private veterinary hospital at their expense;

Making sure that euthanasia without the owner's consent is approved by the shelter management team;

Ensuring animals with a recent history of biting a human or other animal is euthanized only under the direction of jurisdictional authorities for public and/or animal health; and

Making certain that animal deaths, including animals that are dead on arrival to the shelter, are documented, which may help bring closure to animal owners.

MO V.A.M.S. 273.325 Definitions V.A.M.S. 273.335 Substantial ongoing risk to health and welfare of animals, temporary or permanent injunction-- animals in pain or diseased taken into custody for euthanasia, when, costs to licensee 2 Mo. Code of State Regulations 30- 9.010 Animal Care Facilities Definitions 20 Mo. Code of State Regulations 2270 -4.060 Minimum Standards for Supervision Licensed veterinarians Temporary licensee under the direct supervision of a licensed veterinarian Registered veterinary technician under the immediate supervision of a licensed veterinarian Veterinary student under the immediate supervision of a licensed veterinarian Veterinary clinics Animal shelters or licensed facilities Lawful techniques deemed acceptable by the American Veterinary Medical Association Panel on Euthanasia N/A

ESF-11 APPENDIX 9: MO DNR ANIMAL PRODUCTION MORTALITIES EMERGENCY PROCEDURES

GOVERNING AGENCIES

The disposal of dead animals is regulated as a solid waste by the Missouri Department of Natural Resources' (DNR) Solid Waste Management program and by the Missouri Department of Agriculture's Division of Animal Health.

Current law requires that the body of an animal that has died be properly disposed of within 24 hours after knowledge of the death. Disposal methods acceptable to DNR are rendering facility, composting, sanitary landfill, incineration and on-site burial.

The DNR Water Pollution Control program protects the quality of the groundwater and surface water supplies of the state by regulating the disposal of wastewater pollutants.

Improper disposal of dead animals can result in surface water or groundwater contamination. Therefore, proper dead animal disposal is important. DNR requires all submitted letter of approval applications for Class I facilities contain a brief description outlining one or more acceptable methods for dead animal disposal. DNR recommends that letter of approval applications for Class II facilities also include this information.

DISPOSAL OPTIONS

The following acceptable methods of dead animal disposal are listed in order of preference by DNR.

Disposal of dead animals at a state licensed and approved rendering facility.

A DNR goal is to promote resource reuse and recycling in the state. However, the lack of rendering plants in the state prevents many producers from using this option. Efforts among several producers using stations for dead animal collection may make rendering a workable option.

Composting of dead animals in a properly designed and sized dead animal composter

This new and experimental technology allows the end product to be recycled back to the land as a fertilizer. It has proven to be a very effective means of carcass management in the poultry and swine industries. Refer to other MU Water Quality Initiative publications for information on dead animal composting.

Dead animal disposal in an approved sanitary landfill

Landfills are permitted to accept dead animals under Chapter 260, RSMo. Modern sanitary landfills are designed and operated to prevent leaching into groundwater or surface waters. The drawback of landfills is that they are only for disposing, not for recycling, and landfill space is becoming scarce. Even though a landfill is permitted to accept dead animals, it may not be the policy of the landfill operator.

Incinerating dead animals

Incineration of dead animals is feasible, but it may not be economical. It is energy intensive and has the potential for polluting the environment if the incinerator is not operated and maintained properly. Open burning of dead animals or burning in a trash barrel or similar type of container is not allowed.

Any commercial incineration of dead animals must be done in an incinerator designed, constructed and operated according to Chapter 643 RSMo. Air Conservation Law and regulation 10 CSR 10-6.160. A permit from the Air Pollution Control program is required for constructing a new incinerator. Now, existing incinerators must comply with 10 CSR-6.160.

Agricultural incinerators do not need a permit. As defined in 10 CSR 10-6.020, an agricultural incinerator is located on a farm or ranch and has a burning capacity of less than 100 pounds per hour of Type 4 waste. It is located more than 1,500 feet from the nearest inhabited dwelling not on the farm or ranch. Type 4 wastes include animal remains, carcasses, organ and solid tissue wastes from farms, laboratories and animal pounds. Incineration of plastics or other wastes containing chlorine is not permitted.

This definition limits agricultural incinerators without permits to relatively small units that may not be adequate for large-scale animal production units. In any case, even an incinerator not requiring a permit must be operated in a manner that does not cause a nuisance condition or air pollution and must comply with 10 CSR 10-6.160.

Non-commercial dead animal incinerators operated with a burning capacity of more than 100 pounds per hour must have a permit. However, these incinerators are exempt from the requirements for residence time, secondary chamber temperature and hydrogen chloride testing.

On-site burial of dead animals

This option is the least desirable, due to the potential for water pollution. It is acceptable if certain practices are followed to limit pollution.

On-site burial guidelines

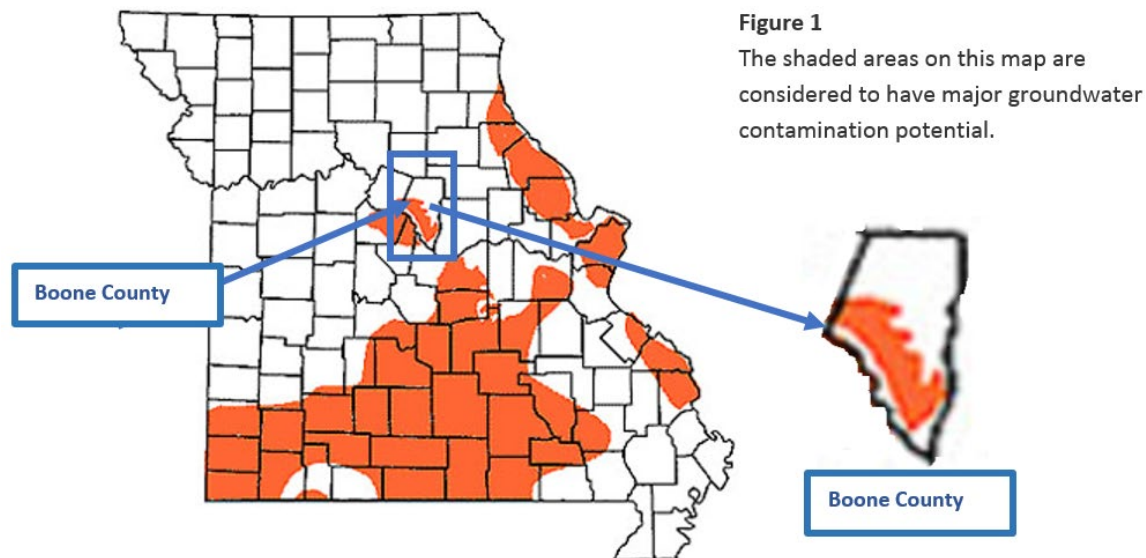
Although on-site burial is the least-preferred method of disposal, it may be the only practical option for some producers.

In order to comply with the law, the burial method must follow certain guidelines. These restrictions may be very different from traditional dead animal disposal practices. The following outlines on-site dead animal burial:

1. The maximum loading rate for areas, defined by the DNR, Division of Geology and Land Survey, as having major groundwater contamination potential is limited to:
 - One bovine; six swine; seven sheep; and after July 1, 1995, 70 turkey or 300 poultry carcasses on any given acre per year; or
 - All other animals and immature cattle and sheep; and after July 1, 1995, turkeys or poultry is limited to 1,000 pounds of animal on any given acre per year.
2. The maximum loading rate for areas excluded from major groundwater pollution potential is limited to:
 - Seven cattle; 44 swine; 47 sheep; and after July 1, 1995, 400 turkey or 2,000 poultry carcasses on any given acre per year; or
 - All other animals and immature cattle and sheep; and after July 1, 1995, turkeys or poultry is limited to 7,000 pounds of animal on any given acre per year.

3. The maximum amount of land that is used for on-site burial of animals on any person's property during a given year is limited to 10 percent of the total land owned by that person or 1 acre, whichever is greater.
4. Burial sites will not be located in low-lying areas subject to flooding.
5. The lowest elevation of the burial pit will be 6 feet or less below the surface of the ground.
6. The dead animals shall be immediately covered with a minimum of 6 inches of soil and a final cover of a minimum of 30 inches of soil.
7. Carcasses will not be placed on the ground, in a ditch, at the base of a hill or in a cavern and covered with soil.
8. Puncture the abdominal cavity of carcasses over 150 pounds to allow escape of gasses.
9. The location of a burial site must be:
 - At least 300 feet from any wells, surface water intake structures, public drinking water supply lakes, springs or sinkholes.
 - At least 50 feet from property lines.
 - At least 300 feet from any existing neighboring residence.
 - More than 100 feet from any body of surface water, such as a stream, lake, pond or intermittent stream.

The map outlines the areas of Missouri considered to have major groundwater contamination potential (Figure 1). You should contact DNR, Division of Geology and Land Survey at Rolla, Mo., for a site-specific evaluation of the groundwater pollution potential at your specific location.



OTHER PROVISIONS OF THE DEAD ANIMAL LAW

There are other regulation guidelines that may change the way dead animals are managed. In particular, the transportation and holding of dead animals in a collection station. These items may be important to producers developing a plan to collect and haul dead animals to a rendering plant or similar facility.

TRANSPORTING CARCASSES

A permit from the state veterinarian is required for commercial vehicles used in transporting dead animals. The permit must be attached to each vehicle that is used in hauling the carcasses.

Vehicles used for transporting carcasses need a metal tank or tank with a watertight metal lining to carry the carcasses. It should not drip or seep. Hide the carcasses from view when transporting.

Thoroughly clean and disinfect the vehicles after each hauling. In cleaning the vehicles, thoroughly wash with hot water or steam and disinfect with a solution prescribed by the Missouri Department of Agriculture's state veterinarian.

Do not use vehicles that have hauled carcasses to transport live animals, feeds or similar commodities.

Vehicles hauling carcasses must go to their destination directly, stopping only to load more carcasses. The vehicle's operator must get permission before entering a facility to pick up additional carcasses.

The driver of a vehicle hauling carcasses is responsible for the cleanup of any spills or leaks that may occur as a result of the hauling.

Exceptions to transporting requirements

The following are exceptions to the transportation requirements and primarily affect producers on a non-commercial basis.

- Hauling carcasses to a slaughterhouse for personal consumption.
- Hauling a finished meat product or hauling hides and skins.
- A producer hauling owned carcasses to a renderer, collection station, on-farm burial site or to a diagnostic facility.

COLLECTION STATIONS

The following requirements apply to operating a collection station that may receive carcasses from several producers for transport to a renderer or other disposal facility.

- A permit from the state veterinarian is required for operating a dead animal collection station. Storage methods and management of dead animals must be detailed in the permit application.
- Hold carcasses in a vessel with a watertight lining that does not allow leaking or dripping.
- Carcasses may be held unrefrigerated for a maximum of 48 hours.
- Locate collection stations more than 2 miles from city limits and 1 mile from public parks, schools and hospitals.

OTHER PROVISIONS

Dead animal carcasses should not be buried, burned, cooked or otherwise disposed, except as provided for in the dead animal regulations.

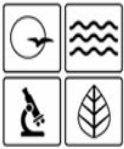
If the animal did not die of a contagious disease, the owner may remove the hide before disposing of the carcass properly, but not creating a nuisance.

If the owner or person responsible for a dead animal is absent, unwilling or unable to dispose of the animal properly, and the state veterinarian determines that the dead animal is a health risk or nuisance, the veterinarian may enter the premises, take possession and dispose of the animal. The owner or person responsible for the dead animal must reimburse the state veterinarian for reasonable expenses.

Large-scale animal deaths may occur, such as natural disasters, disease outbreaks or a disease eradication and control program. Management of such large-scale loss may be beyond the scope of methods outlined in the regulation. In such cases, the state veterinarian, with the assistance of DNR, will develop an emergency plan for proper management of the large-scale death loss.

If a death loss is anticipated or experienced, contact the state veterinarian's office at 573-751-3377.

<https://extension2.missouri.edu/wq216>



Missouri Department of Natural Resources

Animal Production Mortalities Emergency Procedures

Solid Waste Management Program / Water Protection Program fact sheet

01/2017

Division of Environmental Quality Acting Director: Steve Feeler

PUB01250

This fact sheet contains guidance about handling high mortality of animals due to unusual events such as floods, tornados, or other natural disasters as well as power outages, fires, spread of disease or other events that cause a high number of mortalities at animal production facilities.

During a disaster, the highest priority is protection of human life and safety. As soon as the immediate threat is over, animal producers must address the disaster's effects on their animals and property. Live animals should be provided humane treatment and dead animals must be disposed of in compliance with state law.

Preplanning for disasters can save time and money during an already stressful period. Contacting your local landfills and identifying composting or burial locations can lessen that burden. This guidance assists you in the preplanning process.

For the disposal law, see moga.mo.gov/mostatutes/stathtml/26900000201.HTML or call the Missouri Department of Agriculture's Division of Animal Health at 573-751-3377.

Estimating Site Damage

Begin by viewing the site and making a written self-estimate of damage. This will help in talking to agencies and organizations and making cleanup plans. Document conditions by photographing damage at the earliest opportunity and then identify the following:

- Number of animals originally on-site
- Approximate number and size of dead animals
- Uninjured animals and their needs for food, water and protection
- Animals that remain unaccounted
- Condition of confinement buildings or enclosures

Cleanup

Move to safety and find housing for uninjured animals either on your property or with the help of your integrator company. Contact your county USDA Natural Resources Conservation Service office, usually located in the county seat, to determine what assistance is available.

Dispose of dead animals within 24 hours of death by the most practical means available among the following. This list is in order of desirability with rendering being most desirable and burial least desirable:

- Processing at a rendering plant. Call 573-751-3377 to request information about licensed companies. Some integrator companies have their own rendering in conjunction with processing plants.
- Composting as recommended by University of Missouri Extension.
- Landfill disposal. Call the landfill first to determine whether it accepts large quantities of dead animals. For a complete listing of landfills, visit dnr.mo.gov/env/swmp/facilities/sanlist.htm or call the Department of Natural Resources' Solid Waste Management program at 800-361-4827 or 573-751-5401 to obtain phone numbers of landfills in the area.
- Pre-existing University of Missouri Extension service-designed agricultural incinerator or Department of Natural Resources permitted commercial incinerator.
- On-site burial following state law's standard loading limitations.

Compost and Burial Site Selection

Do not bury or compost animals in sinkholes, ravines, caves, mines, low-lying areas subject to flooding, ditches or at the base of a hill. Follow the state law setback distances, using the greatest applicable distance:

- 100 feet from surface water such as ponds, streams and lakes
- 300 feet from springs, losing streams, wells (including unused and abandoned wells, neighboring residences, surface drinking water intakes and public water supply lakes
- 50 feet from property lines.

Drawing a diagram of the property showing all applicable setbacks will help define areas acceptable for composting or burial.

Add neighboring property features requiring setbacks and ask questions of the landowners, if needed. Draw a line or radius showing the setback distance from these features on the neighbors' properties on the property diagram and eliminate these areas from consideration.

Identify the highest elevations and flatter areas of the property. A topographic map may be helpful. A ridge area is preferred for a burial or compost site because it is farthest from surface water features. Flat to gently sloping upland areas are most desirable.

The local USDA Natural Resources Conservation Service office has information about soil types and thickness. The offices should be able to provide soil map unit data and interpretation reports including ratings for animal burial suitability.

Clay-textured soils are desirable, including heavier silty clay loam, clay loam, sandy clay, silty clay and clay. Soils with sandy textures or large amounts of gravel are not desirable.

Burial sites should have at least 2-feet of clay-textured soil material beneath the trench. Look for the areas of the property that have the deepest soil but avoid flood-prone areas. A 6-foot deep trench requires 8-feet of soil depth and a 4-foot-deep trench requires 6-feet of soil depth. If a 6-foot-deep trench would expose bedrock everywhere on the property, a shallower trench of 3- to 4-feet depth may be necessary. In this case, a single layer of large animals could be deposited in the trench.

Emergency Composting Structures

If an empty litter stacking shed is available, it makes a good temporary composter. In general, if no shed is available, emergency carcass composting units should be constructed with the following in mind:

- Composting can be done in long windrow piles or in bins constructed of hay bales according to the convenience of available materials and site considerations. A convenient width of bins or windrows for ease of equipment use is 10- to 12-feet. But other widths may be used. Typical heights of piles or bins is 6- to 10-feet.
- Compost piles or bins should be started with a 2-foot thick base layer of bulking material such as sawdust, wood chips, leaves, straw, hay or silage to absorb odors and liquids.
- Carcasses should be placed in layers separated by 6-inch layers of bulking material. Dry poultry litter may be used in inner layers as a bulking material, if available. Large animal carcasses should be splayed when placed to help with bloating and eruption that can damage the pile. In dry conditions, wetting the layers during placement is advised to provide proper moisture conditions for composting.
- Cap the pile or bin with a 2-foot layer of bulking material.

A properly constructed compost pile will not attract vectors or scavengers, will be odor free, will not ooze decomposition liquids and will kill pathogens. The composting process takes eight to 12 weeks. The process will convert the animal carcasses and bulking material into a beneficial soil amendment.

Further guidance for building composting units according to University of Missouri Extension service designs is available at: <http://extension.missouri.edu/explore/envqual/wq0351.htm>
<http://extension.missouri.edu/xplor/envqual/wq0211.htm>

Burial Guidelines

- Trenches should be dug no deeper than 6-feet to comply with the state statute. Stockpile the topsoil separately for final cover.

- If soil thickness is inadequate for a 6-foot deep trench, leave at least 2-feet of clay soil in the floor of the trench and limit the total depth of the trench.
- Keep the bottom of trenches as flat as possible. Slope one end of the trench, if necessary, to allow vehicular access for placing carcasses.
- If the site is sloping, run the trench across the slope to minimize the probability of erosion.
- Make the uphill side of the trench no more than 6-feet deep and the downhill side less than 6-feet.
- If an underground void such as a sinkhole, rock crevice, cave or manmade chamber such as a cistern is encountered while digging, do not use that area.
- To prevent trench sides from collapsing, slope or bench any excavation face more than 4-feet high and take any other necessary safety precautions.
- Place carcasses to within about 1-foot of the surface. Pierce body cavities of animals that are more than 150 pounds as they are placed to minimize bloating and comply with the state statute.
- Cover the carcasses with excavated soil to mound at least 30 inches thick to comply with the state statute. Pack the cover material by running heavy equipment over it several times.
- Place the stockpiled topsoil over the mounded trench area and seed it with a perennial grass as soon as possible. This will prevent erosion and will help promote runoff from infiltrating.

Contact the Missouri Department of Agriculture's Division of Animal Health or a Missouri Department of Natural Resources' regional office for further assistance.

For assistance locating an appropriate burial site on your farm, contact the Department of Natural Resources' Geological Survey Program at 573-368-2100 or, after business hours, the department's Environmental Emergency Response hotline at 573-634-2436.

Helpful Contacts

- Your integrator company. If applicable, these companies may be helpful in capturing live • animals and finding locations where these animals may be relocated.
- The Department of Agriculture's State Veterinarian's Office. Visit the webpage mda.mo.gov/animals/health/staff.php or call 573-751-3377, particularly if buildings are unsafe to enter, which might make it difficult to comply with the state statute regarding disposal in a timely manner, or for situations that require disposal of large numbers of animals.
- Your region's Department of Natural Resources regional office for help with disposal questions. Visit dnr.mo.gov/regions/regions.htm or call 800-361-4827 to find out which regional office serves your area. After business hours, call the department's Environmental Emergency Response hotline at 573-634-2436.
- Your county sheriff or other law authorities. They can assist in protecting animals and belongings.

Nothing in this document may be used to implement any enforcement action or levy any penalty unless promulgated by rule under chapter 536 or authorized by statute.

For more information: Missouri Department of Natural Resources - Water Protection Program
P.O. Box 176
Jefferson City, MO 65102-0176
800-361-4827 or 573-751-1300
<http://dnr.mo.gov/env/wpp>

ESF-11 APPENDIX 10: RSMO 269.020 – DISPOSAL OF DEAD ANIMALS

2005 Missouri Revised Statutes - § 269.020. — Disposal of dead animals, manner--on-site burials permitted, when --removal of hide authorized--composting, incineration--state veterinarian may enter premises in emergency situations or when nuisance exists, costs--court order requiring disposal--limitation on veto power of decisions.

269.020. 1. Every person owning or caring for any animal that has died from any cause shall dispose of the animal carcass within twenty-four hours after knowledge of such death, either by arranging for a person permitted under this chapter to dispose of or transport it, or by the owner or person entitled to such body causing the same to be deposited in a permitted sanitary landfill notwithstanding any other provision of the law or rule to the contrary, allowing it to be buried in a sanitary landfill or buried, incinerated, composted, or disposed of in a manner approved by the state veterinarian within the twenty-four-hour period upon his own or any other available premises, provided that such disposition is in accordance with the provisions of subsection 2 of this section.

2. On-site burial of dead animals shall be in accordance with the following loading limitations, geographic restrictions and other conditions as specified:

(1) For areas defined by the department of natural resources, division of geology and land survey, as having major groundwater contamination potential, the maximum loading rate shall be limited to:

(a) One bovine, six swine, seven sheep, and beginning July 1, 1995, seventy turkey carcasses or three hundred poultry carcasses on any given acre per year; or

(b) All other species and immature cattle, swine, and sheep, and beginning July 1, 1995, turkeys or poultry shall be limited to one thousand pounds of animals on any given acre per year;

(2) A maximum loading for areas excluded from subdivision (1) of this subsection shall be limited to:

(a) Seven cattle, forty-four swine, forty-seven sheep, and beginning July 1, 1995, four hundred turkey carcasses, or two thousand poultry carcasses on any given acre per year; or

(b) All other species and immature cattle, swine, sheep, and beginning July 1, 1995, turkeys or poultry shall be limited to seven thousand pounds of animals on any given acre per year;

(3) The maximum amount of land that shall be used for on-site burial of animals on any person's property during a given year shall be limited to ten percent of the total land owned by that person or one acre, whichever is greater; and

(4) Burial sites shall not be located in low-lying areas subject to flooding; and

(5) The lowest elevation of the burial pits shall be six feet or less below the surface of the ground; and

(6) The dead animals shall be immediately covered with a minimum of six inches of soil and a final cover of a minimum of thirty inches of soil; and

(7) Carcasses shall not be placed on the ground, in a ditch, at the base of a hill, or in a cavern and covered with soil; and

(8) The abdominal cavity of carcasses over one hundred fifty pounds shall be punctured to allow escape of putrefactive gasses; and

- (9) The location of dead animal burial sites must be in accordance with the following separation distances:
- (a) At least three hundred feet from any wells, surface water intake structures, public water supply lakes, springs or sinkholes; and
 - (b) At least fifty feet from adjacent property line; and
 - (c) At least three hundred feet from any existing neighboring residence; and
 - (d) More than one hundred feet from any body of surface water such as a stream, lake, pond, or intermittent stream.
3. Any person so owning or controlling any dead animal, that has not died of a contagious disease, shall have the right to remove the hide or skin thereof, at the site of the animal's death, before disposing of such body as prescribed in this chapter, but such skinning must be done and the disposition of such hide, or skin and body must be made in a manner that will avoid the creation of any nuisance.
4. No body of any animal shall be buried, burned, cooked, or otherwise disposed of, except as provided for in this section.
5. Composting of dead animals shall be done in a dead animal composter designed and constructed in an efficient design as recommended by the University of Missouri extension service.
6. Noncommercial incineration of dead animals shall be done in an incinerator designed, constructed and operated in an efficient manner as recommended by the University of Missouri extension service.
7. Commercial incineration of dead animals shall be done in an incinerator designed, constructed and operated in accordance with the provisions of chapter 643, RSMo, and any rule or regulation promulgated thereunder.
8. Disposal of dead animals is allowable in a sanitary landfill that has a current permit under the provisions of chapter 260, RSMo, and any rule or regulation promulgated thereunder.
9. In emergency situations involving a risk to the health and welfare of any species of animal or man caused by the death of an animal, the state veterinarian may enter any premises, take possession of any dead animal, and dispose of such animal by any method authorized by this chapter, but only if the person who owned, cared for, or most recently possessed the animal is unable or unwilling to properly dispose of the animal. The owner, custodian, or person who most recently possessed the animal shall reimburse the state veterinarian for the reasonable expense of disposing of the animal pursuant to this section.
10. If an animal's death causes a nuisance, the state veterinarian may enter any premises, take possession of any dead animal and dispose of such animal by any method authorized by this chapter but only if the person who owned, cared for, or who most recently possessed the animal has not been located within twenty-four hours after a reasonable effort, the person is absent from the state and refuses to cooperate, or the person is unable to properly dispose of the animal due to that person's physical or mental condition. The owner, custodian, or person who most recently possessed the animal shall reimburse the state veterinarian for the reasonable expense of disposing of the animal pursuant to this section.
11. In emergency situations involving a risk to the health and welfare of any species of animal or man, or where the death of an animal has caused a nuisance, the state veterinarian may apply, in the county where the dead animal was found, for a court order requiring the person who owned, cared for, or most recently possessed the dead animal, to dispose of it.

12. The department of agriculture and the department of natural resources shall not have veto power on the decisions of the University of Missouri extension services, or any decisions made under this section.

(L. 1941 p. 290 ◆ 14493n, A.L. 1992 H.B. 878, A.L. 1993 H.B. 399)

ESF-11 APPENDIX 11: BOONE COUNTY PET SHELTERING TRAILER INVENTORY

AKC Pet Disaster Relief trailer equipment and supplies

ADMINISTRATIVE SUPPLIES	QTY
10" Colored wrist bands for owner ID	1500
Collar bands - 20" for animal ID	1500
Animal intake registration forms	C-M furnishes
Camera, SD cards	2
First Aid Kit for volunteers and pets	3
Index cards	1pk
Envelopes for cages - letter size poly	100
Markers Hi-liters	1
Markers assorted	1
Markers black permanent	2
Micro chips	50
Microchip scanner	1
Paper, copier	1 ream
Pens, assorted pkg. 10	1
Post-It notes	1 pkg.
Registration logbook	5
Safety vests	10
Scissors	2 pairs
Hole punch, single	2
Stapler, small	1
Tape, transparent	3
Ties, 8" zip for envelopes on cages	200
Volunteer registration forms	C-M furnishes
ANIMAL CARE SUPPLIES	QTY
Animal control pole	1
Bowls, stainless 1 qt	100
Can opener, hand	2
Carriers, corrugated pet	2
Crates, lg.	40
Crates, med	15

Gloves, handling	2 pair
Measuring cup sets	2
Measuring spoon sets	2
Muzzles, feline	3
Muzzles, canine	7
Slips leads	24
Spoons, lg. (to scoop food)	6
Trays, red plaid for food #300	500
Trays, red food SEPG 1 lb. paper	1000

EQUIPMENT	QTY
------------------	------------

Ball hitch 2 5/16'	1
Ball hitch pin 5/8"	1
Ball mount	1
Ball security lock for hitch	1
Boards 2X4	4
Camera, digital with case	1
E-track board holder 2x4	8
E-track ratchet 2/16	3
Fans, box	2
Fire extinguisher	1
Generator, Powerhorse 5.5K Ser. # 08132832	1
Jack trolley	1
Jack stands	1 pr.
Keys, trailer front door	2
Locks, bar door w/keys (keyed the same, 4/pkg.)	1
Pressure washer	1
Printer, computer	1
Safety strip grip	2
Shop vacuum	1
Tent, pop-up	1
Trolley platform, 1/2 ton	1
Work light, telescoping	5

MAINTENANCE SUPPLIES	QTY
-----------------------------	------------

Batteries, D 12 pkg.	2 boxes
Bulbs, spare for flashlight	2

Bulbs, spare for work light	6
Chocks for wheels	2
Cone, orange 18" (inside walking area for male dogs)	2
Cords, bungee assorted	1 pkg.
Extension Cord, 50 ft. 20-amp, 12-gauge	3
Flashlight and batteries	2
Funnels, plastic	2
Gas can for generator	1
Hammer	1
Hose, 50' heavy duty water	2
Rags "Tool Box"	1 box
CLEANING SUPPLIES	QTY
Bags, garbage for trash containers	125
Bags, On the Go t-sack	1000
Bags, sandwich (for poop pick up)	1000
Bleach	6 gals
Broom	2
Brush, scrub lg..	1
Brush, scrub med	1
Brush, scrub small	3
Bucket, plastic mop 2 1/2 gal	1
Bucket, plastic 5 gal. w/lid	5
Bucket, stainless steel	2
Cat litter (shredded paper also ok)	100 lbs.
Cleaning rags	1 case
Disinfectant, hand	3
Disinfectant, lemon	4 gals
Dustpan, med	2
Dustpan, w/broom	2
Gloves, latex assorted sizes and colors	10 pr.
Gloves, nitrile lg..	1000
Hand cleaner	1

Litter boxes 9/12	250
Mop	2
Pooper Scoopers	2
Sanitizer, Quaternary all purpose	4 gals
Scoops, litter	6
Scouring pads	1 pkg.
Shovel, short round point	1
Shovel, short square point	1
Shovel, mini round point	1
Shovel, mini square point	1
Soap, liquid hand	w
Sponges	1 pkg.
Spray bottles, 24 oz. for cleaning cages	4
Towels, roll paper	1 case
Towels, terry	24
Trash container, 44 gal.	2
Wipes, wet	1

ESF-11 APPENDIX 12: FEMA DISASTER ASSISTANCE POLICY 9523.19



FEMA DISASTER ASSISTANCE POLICY

DAP9523.19

include reptiles (except turtles), amphibians, fish, insects/arachnids, farm animals (including horses), and animals kept for racing purposes.

2. Service Animal¹. Any guide dog, signal dog, or other animal individually trained to provide assistance to an individual with a disability including, but not limited to, guiding individuals with impaired vision, alerting individuals with impaired hearing to intruders or sounds, providing minimal protection or rescue work, pulling a wheelchair, or fetching dropped items.

3. Congregate Household Pet Shelters. Any private or public facility that provides refuge to rescued household pets and the household pets of shelterees in response to a declared major disaster or emergency.

B. Eligibility. State and local governments that receive evacuees from areas declared a major disaster or an emergency may seek reimbursement for eligible pet rescue, sheltering, and evacuation-support costs.

1. State and local governments outside the designated disaster area may seek reimbursement under mutual aid protocols through the affected and supported state(s). (44 CFR § 206.223(a)(2)).

2. State and local governments are the only eligible applicants for sheltering and rescuing household pets and service animals. Contractors or private nonprofit (PNP) organizations that shelter or rescue household pets and service animals cannot be reimbursed directly as an applicant. However, contractors and PNPs can be reimbursed for sheltering and rescuing household pets and service animals through a state or local government, provided a written statement from an eligible applicant is presented in which the applicant verifies that the contractor or PNP is performing or has performed sheltering or rescuing operations on the applicant's behalf and the expenses are documented.

C. Household Pet Rescue. State and local governments may conduct rescue operations for household pets directly or they may contract with other providers for such services. Eligible costs include, but are not limited to, the following:

1. Overtime for regular full-time employees.

¹ Department of Justice, Americans with Disabilities Act (ADA), 42 USC 1201 et seq, implementing regulations at 28 CFR § 36.104.



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2. Regular-time and overtime for contract labor (including mutual aid agreements) specifically hired to provide additional support required as a result of the disaster.

3. The use of applicant-owned or leased equipment (such as buses or other vehicles) to provide eligible pet transportation to congregate pet shelters may be reimbursed according to 44 CFR § 206.228(1)(a) (does not include operator labor). The cost of leasing equipment for this purpose may also be eligible for reimbursement.

D. Congregate Household Pet Sheltering. State and local governments may conduct sheltering operations for pets directly, or may contract with other sheltering providers for such services. Eligible Category B congregate pet sheltering costs may include, but are not limited to, the *reasonable* costs for:

1. Facilities.

- Minor modifications to buildings used for congregate household pet sheltering, if necessary to provide increased capacity for the accommodation of shelterers' household pets.
- Facility lease or rent.
- Increase in utility costs, such as power, water, and telephone.
- Generator lease and operation (but not purchase).
- Shelter safety and security.
- Shelter management.
- Shelter and crate/cage cleaning.

2. Supplies and Commodities. Eligible items are those needed for, and used directly on, the declared disaster, and are reasonable in both cost and need. Examples include:

- Food, water, and bowls.
- Crates/Cages.
- Pet transport carriers.
- Animal cleaning tables and supplies.
- Medication for animal decontamination and parasite control to ensure that the animal is not a health threat to humans or other animals.

3. Eligible Labor. If the regular employees of an eligible applicant perform duties in direct support of congregate pet sheltering operations, any overtime pay related to such duties is eligible for reimbursement. However, the straight-time pay of these employees is not eligible. Regular-time and overtime for contract labor, including mutual aid agreements,



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specifically hired to provide additional support required as a result of the disaster or emergency is also eligible for reimbursement.

4. Equipment. The use of applicant-owned or leased equipment (such as buses, trucks, or other vehicles) to provide eligible pet evacuation or sheltering support may be reimbursed according to 44 CFR §206.228(1)(a) (does not include operator labor). The cost of leasing equipment may also be an eligible expense for reimbursement.

5. Emergency Veterinary Services. For the purposes of screening the health of household pets and service animals, and assessing and treating minor illnesses and injuries, congregate pet shelters may be staffed with emergency veterinary teams. The following costs related to the provision of emergency veterinary services in a congregate pet sheltering environment are eligible for reimbursement:

- Veterinary diagnosis, triage, treatment, and stabilization.
- Provision of first aid, including materials (bandages, etc.).
- Medicine.
- Supervision of paid and volunteer veterinary staff.
- Vaccinations administered to protect the health and safety of congregate shelter and supporting emergency workers including but not limited to tetanus and hepatitis.
- Vaccinations administered to protect the health and safety of congregate shelter pets for transmissible or contagious diseases including but not limited to bordetella/kennel cough.

6. Transportation. Transportation of evacuees' household pets and service animals to congregate shelters from pre-established pickup locations is an eligible expense when the means of transportation used is the most cost-effective available.

7. Shelter Safety and Security. Additional reimbursable safety and security services may be provided at congregate pet shelters, based upon need.

8. Cleaning and Restoration. The costs (to the Applicant) to clean, maintain, and restore a facility to pre-congregate pet shelter condition are eligible.

9. Removal and Disposal of Animal Carcasses. The costs (to the Applicant) to remove and dispose of animal carcasses in a safe and timely manner and in compliance with applicable laws and regulations are eligible.



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10. Cataloging/Tracking System for Pets. The reasonable costs (to the Applicant) for tracking animals at congregate pet shelters for the purposes of reuniting them with their owners are eligible.

E. **Service animals.** Service animals will be sheltered with their owners in congregate shelters.

F. **Length of Operation.** Costs of sheltering/caring for household pets will no longer be eligible for FEMA reimbursement when the pet owner transitions out of Section 403 emergency sheltering.

VIII. **ORIGINATING OFFICE:** Disaster Assistance Directorate (Public Assistance Division).

IX. **SUPERSESSION:** This policy supersedes all previous guidance on this subject.

X. **REVIEW DATE:** Three years from date of publication.

Carlos J. Castillo
Assistant Administrator
Disaster Assistance Directorate

ESF-12: ENERGY

This annex describes the processes by which the energy providers of Boone County and its municipalities coordinate the restoration and response activities of energy systems and the provisions of emergency power during times of emergency and disaster.

Agencies with identified roles and responsibilities in this annex include, but are not limited to:

Ameren UE
Boone Electric Cooperative
Centralia Electric Department
Columbia Water and Light
Boone County Office of Emergency Management (BCOEM)
Boone County Information Technology and GIS Support (IT, GIS)
Missouri Public Service Commission
Missouri Public Utility Alliance (MPUA)

SITUATION AND ASSUMPTIONS

SITUATION

The citizens of Boone County and its municipalities depend on both public and private providers of energy and utilities services.

The City of Ashland residents receive power from Boone Electric Cooperative and Ameren UE.

The citizens of the City of Columbia receive services from Columbia Water & Light and Ameren UE.

The City of Centralia Electric Department maintains 2 substations that are fed by Ameren UE. Centralia owns the substation transformer and switchgear at the sites. The City distributes power through overhead and underground lines to the residential and commercial areas located in and around Centralia. The Electric Department is also responsible for maintaining approximately 1000 streetlights throughout Centralia.

The citizens in the smaller municipalities and unincorporated areas of Boone County receive electricity from Boone Electric Cooperative and gas from Ameren UE.

Detailed information on resources and points of contact can be found in the EOC Contact and Resource Guide.

ASSUMPTIONS

In times of disaster, critical energy infrastructure is likely to be damaged and/or inoperable. Both public and private entities must maintain partnerships to maintain and provide vital services to the citizens of Boone County.

The critical systems supply energy are potential targets for terrorists. These facilities have emergency plans and procedures in place to monitor, protect and maintain essential operations to protect life and property, as well as to bring about a prompt recovery.

The requirement for energy capacity during the immediate lifesaving response phase will exceed the availability of jurisdictionally controlled or readily obtainable assets.

Private utilities will cooperate as required, and maintain mutual aid agreements with other utility companies.

State, federal, mutual aid and private resources are available to assist in energy provision activities should all local resources become committed.

When a major disaster occurs, the local energy department(s) may not have adequate resources to deal with all potential problems immediately, and will need to assign tasks on a priority basis.

CONCEPT OF OPERATIONS

GENERAL

In accordance with federal mandates, management of local disasters and emergencies will be initiated and conducted using the concepts and principles of the National Incident Management System (NIMS). On-scene management and coordination of responses will utilize the Incident Command System (ICS).

The energy provision activities described in this annex are an extension of normal day-to-day activities and deal only with those situations that could completely exhaust all available resources.

ESF-12 will be coordinated by representation from one or all energy providers involved in the incident. Entities with ESF-12 responsibilities will provide liaisons to the EOC, if activated, to form an ESF-12 coordination group. Liaisons may locate to, and operate from, the EOC, or may retain a virtual presence with the EOC. The ESF-12 liaison(s) will coordinate energy resource management, maintain situational awareness, and provide information to the EOC regarding response and recovery efforts.

ESF-12 will prioritize, allocate and task assets in coordination with the other ESFs to support the disaster response and recovery efforts. Priorities will continually be reassessed to develop strategies and address the most critical needs.

Local resources will be used first before outside assistance is requested from mutual aid, the state and/or federal government. The first resources to be identified will be those that are under the control of, or are readily available to, the County and municipal governments.

The EOC will not interfere with the internal operations of the involved agencies but will monitor the situation and provide support as requested.

Mutual aid resources will remain under the authority of their home agencies but will be mission assigned by ESF-12 in the EOC and utilized on site by the Incident Commander.

PRIORITY OF SERVICES

Municipal, county and private energy providing services will assist with emergency response and recovery activities to repair damaged energy infrastructure and restore power. Each organization will have priorities for emergency repairs. Below are general guidelines for repairs following a disaster, though each disaster will have a different set of circumstances requiring prioritization at the time of the event:

- Restore services to critical facilities and special needs facilities (hospitals, nursing homes, temporary shelters, etc.).
- Restore services to schools and businesses.
- Make any necessary repairs to expedite recovery.

GENERATORS

Generators may be loaned from OEM to local jurisdictions, or as mutual aid to neighboring jurisdictions.

Regional assets from neighboring counties or SEMA may also be available.

OEM encourages critical facilities to maintain pre-existing generator hook-ups.

ASSIGNMENT OF RESPONSIBILITIES

PRIMARY RESPONSIBILITIES

The agencies with primary responsibility to this plan are tasked with the following actions:

- Prioritization, allocation and/or tasking of energy assets in support of disaster relief and recovery efforts.
- Providing liaison(s) and point of contact for ESF-12 at the EOC.
- Maintaining records of costs for supplies, resources and man-hours used in response to the disaster event.
- Maintaining standard operations guidelines (SOGs) that address energy responsibilities and needs.
- Maintaining lists of potentially available energy resources.
- Maintaining current mutual aid agreements, memoranda of understanding, and contractual resources to support disaster emergency energy needs.

Specific responsibilities include:

- Damage and capability assessment of facilities and equipment.
- Coordinating restoration of utility services, especially for critical and essential facilities.

SUPPORT RESPONSIBILITIES

BOONE COUNTY OEM

OEM will activate the EOC if indicated by the extent of the incident.

OEM will coordinate with the primary and support agencies listed in this annex to identify available resources to ensure all incident requirements are met. OEM will facilitate requests for mutual aid, and for state and federal resources, and will make provisions for logistical support for incident assets.

OEM will collect and disseminate information about, and in support of, the incident; OEM will gather situational information regarding hazards, resources, status of infrastructure, evacuation routes, etc., and will coordinate with the PIO(s)/JIC to disseminate pertinent information to the public.

The EOC will be the focal point for triage and prioritization decisions regarding the restoration of critical services and infrastructure, and providing response and recovery support to residents and businesses.

OEM will also be responsible for gathering cost information from resource providers to prepare for potential declaration of disaster.

OEM maintains a limited inventory of generators available for loan to local or mutual aid jurisdictions.

BOONE COUNTY IT/GIS

Boone County IT and GIS will provide mapping and technological capabilities in support of the EOC and the incident in general.

PRIVATE AGENCIES

The private utility companies are responsible for the direction and control of the services they provide to their customers. These companies are not under the day-to-day control of the county and municipal governments. Specific tasks assigned to private entities will include coordinating response activities with ESF-12, restoration of services, and mutual aid support to public providers.

DIRECTION AND CONTROL

Energy activities and missions will be coordinated by the ESF-12 representative or coordination group, with the supporting and assisting agencies retaining administrative direction and control over their resources. Coordination will be established with the EOC (if activated) and/or IC to prioritize and develop strategies and missions for response and recovery. Priorities will continually be reassessed to develop strategies and address the most critical needs.

Mutual aid resources will be managed by the EOC and local incident commanders, but will retain the administrative oversight of their home agencies.

CONTINUITY OF GOVERNMENT

Lines of succession and continuity of operations plans are maintained at the agency or department level.

Records vital to the continuity of the ESF are duplicated and stored at alternate locations.

ADMINISTRATION AND LOGISTICS

Specific operating procedures and protocols are maintained by the participating organizations.

Resources and points of contact are maintained in the EOP Contact and Resource Guide

Mutual aid agreements, memoranda of understanding and contractual resource lists regarding transportation operations are maintained within individual agencies.

Procedures for use of forms, compiling information, and providing data to the EOC are located in the EOC SOG.

The EOC will provide support and resources at the request of the incident commander.

Supply requisitions/resource requests will be made through normal channels to the extent possible, but will be made through the EOC when necessary and coordinated by ESF-7 Logistics. Unusual expenditures will be directed to the Emergency Management Director and coordinated with the jurisdictional purchasing agents as per documented purchasing procedures

Each agency will track costs and personnel hours associated with the disaster to provide to OEM for disaster declaration activities. Accurate records of hours worked, and supplies used must be reported to the EOC for use in determining the total cost of the disaster. All actions taken must be recorded as they are essential for future planning and mitigation, response and recovery, and training and exercise.

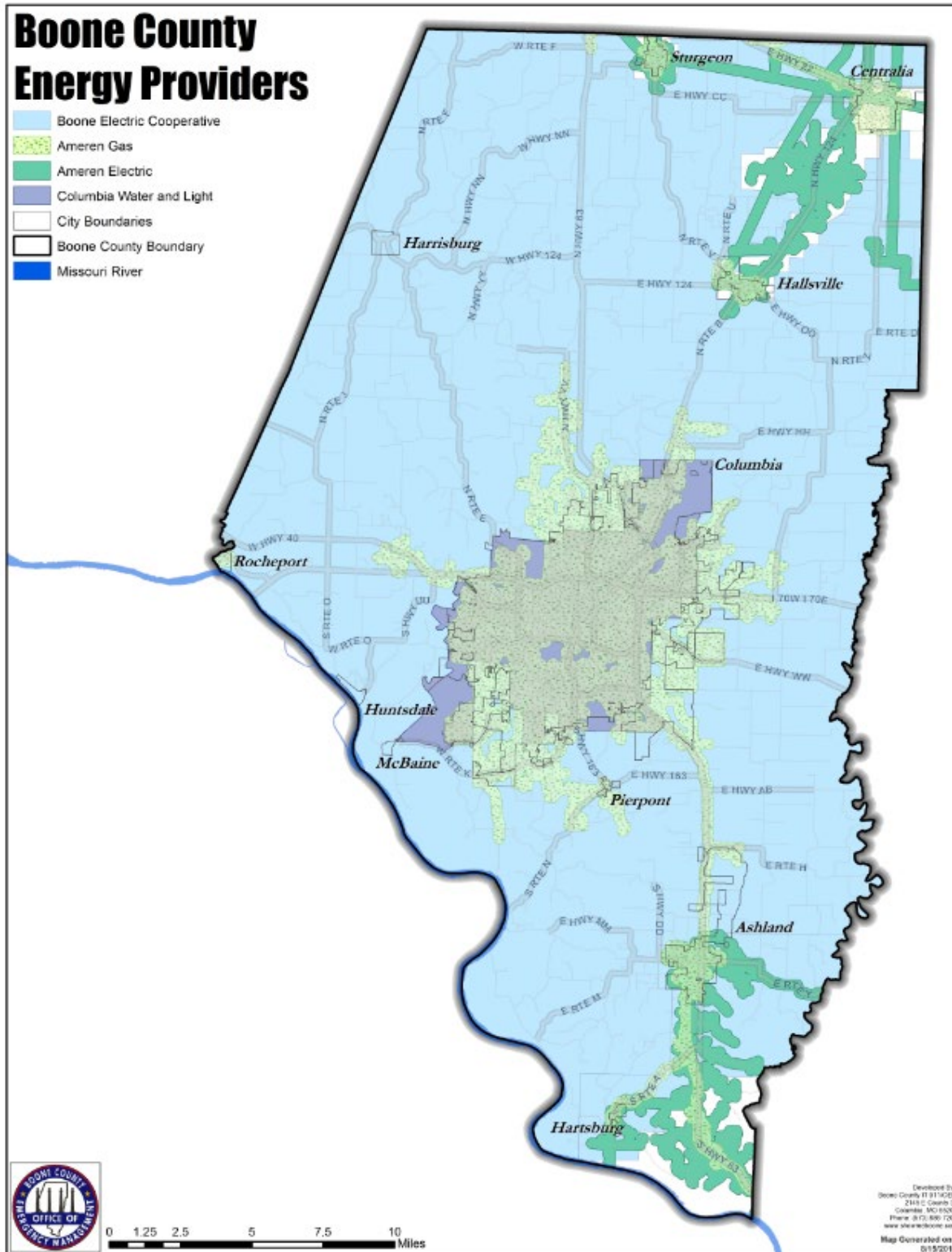
Communications for this function will be provided as outlined in the ESF-2 annex of this plan.

APPENDICES

Appendix 1: Map of Utilities' Boundaries

Appendix 2: Missouri Public Utility Alliance Mutual Aid Program

ESF-12 APPENDIX 1: MAP OF UTILITIES' BOUNDARIES



Mutual Aid Program



MPUA

Missouri Public Utility Alliance

1808 I-70 Drive SW

Columbia, MO 65203

573-445-3279 ~ 573-445-0680 (fax)

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Revision: December 2, 2014

Missouri Public Utility Alliance Utility Mutual Aid Program

The Missouri Public Utility Alliance (MPUA) and its representative organizations (Missouri Association of Municipal Utilities (MAMU), Missouri Joint Municipal Electric Utility Commission (MJMEUC), and the Municipal Gas Commission of Missouri (MGCM) and their respective individual members (referred to collectively as “MPUA”)) determined a need exists for Arkansas and Missouri cities to offer assistance to each other in the event of an emergency that affects the operation of their respective utilities. This program is only open to Missouri municipal utility members of MAMU, MGCM, MJMEUC, Arkansas municipal utility advisory members of MJMEUC, and Arkansas associate members of MAMU.

You Are Part of a Team

As a member of MPUA, you are part of a team. Along with your neighboring municipal utilities, you may either request or provide emergency assistance when a natural disaster or emergency threatens service to the customers. It is this spirit of cooperation, neighbor helping neighbor that has given strength and reliability to our Arkansas and Missouri municipal utilities systems for many years.

The following information will serve as standard procedure whenever emergency assistance is needed. Please read it carefully so you will be able to place a call for help or respond to one in the event of an emergency. Should your utility require emergency assistance and if you need help making calls for aid, the MPUA Mutual Aid Coordinator will provide communication support. Depending on the extent of the emergency or your city location within the mutual aid region, utilities from outside your region may also be called upon to assist you.

The Time to Prepare is Now

Your own degree of preparedness will have a direct effect on the success of your recovery effort in the event of an emergency. The time for planning is before the emergency occurs. Take the time to read the suggested steps in this manual and implement the advanced planning necessary to secure your utility against a natural disaster, accident or other emergency. Some important preparedness steps you should take are:

1. Designate a Utility Emergency Response Facilitator.
2. Familiarize yourself with all elements of the Utility Mutual Aid Program.
3. Train employees in their emergency roles during an emergency and rehearsal mock disasters.
4. Maintain an inventory of essential equipment. Keep an open purchase order with various vendors for use in emergency situations to avoid delays caused by the need for purchase authorization.

5. Assess your utility's vulnerable areas and make regular improvements to minimize these weaknesses.
6. Organize off-site backup systems for important utility functions, including computer programs and record keeping.

Protection Through Mutual Aid

Planning for an emergency before it happens will not prevent the emergency from occurring. It will, however, enable you to respond more effectively to minimize property damage and even save lives. Cooperation with other municipal utilities through MPUA will ensure that your utility has the resources it needs to protect your system, your customers and your community.

When You Plan

Put Your Plan in Writing

Develop a written plan for your utility to be used in the event of a natural disaster, accident or other community emergency. Put it in writing; don't leave it as an undocumented idea. Once a strategy has been mapped out, it can be shared with employees and others in the community such as your local fire and police departments. This will allow them to prepare for their roles in an emergency recovery effort and provide a more rapid and effective response.

Determine Your System's Most Vulnerable Areas

Identify and describe the parts of your system that are the most susceptible to damage. Influences such as extreme weather, including high winds and flooding, highway traffic, construction areas and fire hazards from gasoline can threaten your utility's security.

Don't neglect protection and recovery for utility business records, legal and financial documents and personnel records.

Establish Priorities for Service in the Community

In the event of a widespread outage, a priority system will be needed for reestablishing service to customers in your community. Who will have the primary responsibility for identifying those customers to receive service first, particularly in winter weather? Analyze the most critical needs among customers and develop a priority system to clarify choices on service assignments during an outage.

Make an Inventory of Available Materials and Services

Evaluate the type of equipment and supplies your utility will need in an emergency. Maintain an inventory of essential equipment. Keep an open purchase order with various local merchants and other industry vendors for use in emergency situations to avoid delays caused by the need for purchase authorization.

Develop a list of resources available in the community, such as generators, welders and trucks. Update the list regularly.

Review and Rehearse Your Recovery Plan With Employees

Discuss with employees the details of your utility's emergency recovery plan. Repairs will begin faster and downtime will be minimized if employees have been trained in emergency response procedures.

Plan in Detail

The following list includes important elements in any emergency recovery program. Before the appropriate planning can begin, a Utility Emergency Response (UER) Facilitator must be designated.

This individual should have the authority to declare when an emergency exists, to direct the service restoration activities during that emergency and to terminate the emergency. The UER facilitator may have to initiate action at any time. Utility management should formally delegate sufficient authority to this person to allow the effective exercise of emergency response duties. This is an important condition, since the UER facilitator may have to contact other city departments, contractors, other electric utilities, suppliers, etc.

Advanced planning should include:

1. **Utility Command Center:** An operations center for dispatching work will need to be staffed throughout any emergency recovery operation. The center will:
 - a. Take calls and complete outage sheets
 - b. Establish priorities for service
 - c. Communicate with workers and dispatch crews
 - d. Track work in progress
 - e. Coordinate clean-up activities for scattered outages after utility services have been restored
 - f. Track costs associated with recovery procedures
 - g. Provide public information. Personnel should be designated for releasing information to the public. Statements concerning the emergency recovery in progress should be issued only by those individuals authorized to represent the utility. At this point it may be advantageous to involve the city's governing body members in this process.
2. **Communication System:** Radio communication is a valuable timesaver in directing work within your city. As necessary, make arrangements with the local radio supplier to provide handheld, low band radios tuned to a common frequency for use by crews. Today, cellular phones are also a valuable tool in the communication system. Establish a line of command. This will ensure all crews know who is in charge and whom they can go to for direction/assistance.

3. **Fuel and Vehicle Maintenance:** Without power, fuel for utility vehicles, including those arriving from other utilities, may not be available from local gas service stations. Arrangements for fuel deliveries via tank truck from a petroleum dealer should be planned.

If fuel is stored at the utility in above-ground storage tanks, theft protection may need to be added. Also, in the event of mechanical breakdown, a truck mechanic should be on call.

4. **Traffic Control and Auxiliary Lighting:** Advanced arrangements should be made with local police and fire departments to provide traffic control and auxiliary lighting to crews working in high traffic areas of darkness.

5. **Maps:** System and substation maps, laminated for use outside, will be helpful to crews in understanding:

- a. Where work is to be done
- b. Extent of damage
- c. Source of supply, direction of feed and location of sectionalizing equipment

6. **Food, Lodging and Support Services for Crews:** The damaged utility shall have the responsibility of providing food and housing for the personnel of the assisting utility from the time of their arrival at the designated location to the time of their departure.

There is a limit to the length of time crews can work effectively and safely without sleeping. Supervisors need to watch workers for symptoms of severe fatigue and provide an opportunity for rest. Other support services that may be necessary for outside work crews are:

- a. Cash for workers expenses
- b. Check cashing arrangements
- c. Telephone service
- d. Laundry service
- e. Local transportation

Before You Call

Survey the Damage

Survey the location and severity of damage to your system before calling to request help.

Make a Quick Inventory of Needs; be Specific

Put together a short list of specific personnel, equipment and material you will need before you place a call. Identify areas of need (i.e. substations, transformer banks, distribution, service

connections and pressure regulating stations) and the jobs for which you need assistance.

Call the MPUA Mutual Aid Coordinator

If the situation is such that you cannot make calls for assistance yourself, call the MPUA mutual aid coordinator. If telephone or normal radio contacts cannot be made, utilize the State Highway Patrol or County Sheriff in requesting help.

- Describe:** The nature of the emergency in your community.
Type of help, equipment and number of crews your utility needs.
Other sources of help already contacted, such as neighboring utilities or private contractors.
- Indicate:** Where crews should report when they arrive in your city.
Estimated time (hours, days) they will be needed.
- Establish:** Person and phone number to receive calls from the MPUA Mutual Aid Coordinator.
Time when you will re-contact the MPUA Mutual Aid Coordinator if incoming calls to your utility are not possible.

When You Respond With Help

Receiving a Call From a City Requesting Assistance or the MPUA Mutual Aid Coordinator

A utility representative should be designated to receive calls as part of the MPUA mutual aid program. Both a primary and a backup representative should be identified in the event help is needed on weekends or after regular working hours.

Identify Personnel and Equipment Available

Take an inventory of the personnel and equipment your utility could send for emergency assistance without jeopardizing your own operation.

Determine Which Personnel and Equipment will be Sent

Give the MPUA Mutual Aid Coordinator the names of utility personnel who will be sent to assist a neighboring community. Be specific. Explain in detail what equipment will be taken, e.g. aerial devices, digger derricks, poles, transformers, backhoes, welders, etc.

Confirm Directions for Travel and Where Crews are to Report

In the event main roads into a community are closed, determine what route is available for travel. Also find out specifically where and to whom crews are to report for service assignments.

Estimate Time Involved for Your Utility Personnel

Your utility crews will need to know the approximate time they will need to be away from home. If an overnight stay is anticipated, workers should plan appropriately and include personal items for an extended work schedule.

Share Information with Your Utility Personnel Before They Depart

Don't assume your workers understand the nature of their roles in the mutual aid program. Explain your utility's involvement in the MPUA Mutual Aid Program and specifically what duties your workers will be expected to perform. Provide them with information on where to report once they arrive in the neighboring community.

Document Time and Cost

Mutual aid assistance is provided according to the principles specified under "Mutual Aid Charges/Reimbursable Expenses". Document time and materials used by your utility personnel so reimbursement can be made by the assisted utility.

When The Emergency Is Over

Terminate Emergency Operations

At some time, the greater portion of the system will have been restored to service. Meanwhile, the normal business of the utility has been on hold. At that time, the UER facilitator should formally terminate the emergency operation and return work forces and resources to normal operation. However, some restoration work may still be required as crew time is available.

Accounting Reconciliation

During the challenge of restoring the integrity of the utility's systems, inventory may shrink unnoticed. Proper accounting of material, labor, food, fuel and a host of other items may be neglected because the personnel who normally monitor these facets of operation are assisting in the all-out effort to restore essential utility services.

However, a day of reckoning will come especially for the public body. The UER facilitator must be a ready resource person to whom the accounting section can look for correct answers to their concerns about the disposition of city property and funds. Although the emergency is formally over, it is not over for the UER facilitator until all accounting work is completed.

Evaluate the Effectiveness of the Response to this Emergency

Major emergency restoration work seldom is perfect. Superior performance should be praised, but ignoring things that did not go well or mistakes that could have easily caused injury or death is not wise. Mistakes must be addressed.

The UER facilitator is obligated to work with management in completing a review of the response to this emergency. That review should be factual and dispassionate. Lessons-learned should be identified and submitted to MPUA for the benefit of all members.

Mutual Aid Charges/Reimbursable Expenses

The terms and conditions governing reimbursement for any assistance provided under the Mutual Aid Program shall be in accordance with the following provisions:

1. **Personnel:** During the period of assistance, the assisting utility shall continue to pay its employees according to its then prevailing rules and regulations. The damaged utility shall reimburse the assisting utility for all direct or indirect payroll costs and expenses incurred during the period of assistance, including but not limited to, employee pensions and benefits as defined in Account No. 926 of the Uniform System of Accounts as prescribed by the Federal Energy Regulatory Commission.
2. **Equipment:** The assisting utility shall be reimbursed for the use of its equipment during the period of assistance according to either a pre-established hourly rate or according to the actual operation and maintenance expenses incurred.
3. **Material and Supplies:** The assisting utility shall be reimbursed for all materials and supplies furnished by it and used or damaged during the period of assistance, unless such damage is caused by negligence of the assisting utility's personnel. The measure of reimbursement shall be the replacement cost of the materials and supplies used or damaged, plus ten (10) percent of such cost. In the alternative, the parties may agree that the damaged utility will replace, with a like kind and quality as determined by the assisting utility, the materials and supplies used or damaged.
4. **Payment:** The assisting utility shall bill the damaged utility for all reimbursable expenses not later than the 15th day of the month following the period of assistance. The damaged utility shall pay the bill in full not later than the 15th day following the billing date and once delinquent, shall accrue interest at the rate of twelve (12) percent per annum.

Arbitration

All disputes between two or more participating utilities arising from participation in this Agreement, which cannot be settled through negotiation, shall be submitted to binding arbitration before a panel of three persons chosen from the members or associate utility members of the Missouri Association of Municipal Utilities which are participating utilities under this Agreement, excluding those members that are parties to the dispute.

If there are two parties to the dispute, each one shall choose one panel member and those two panel members shall agree on a third. If the two panel members cannot agree, the third panel member shall be appointed by the Chair of MAMU.

If there are more than two parties to the dispute, the Chair of MAMU shall divide the parties into two adverse sides and each side shall choose one panel member. The two panel members shall then choose a third. If the two panel members cannot agree, the third panel member shall be appointed by the Chair of MAMU.

If the parties cannot be equitably divided into two adverse sides or if for any other reason the above procedures for choosing panel members are inadequate, the three members of the panel shall be designated by the Chair of MAMU.

The panel shall adopt rules of procedures and evidence, shall determine all issues in dispute by majority vote and shall assess damages. The decision of the panel shall be final and binding upon the parties to the dispute.

Insurance Coverage

For cities participating in the MPUA Mutual Aid Program, insurance coverage continues for employees working outside their home city as long as that individual is working as an agent of his/her city and not in a freelance capacity. The assisting city shall provide proof of insurance for automobile, workers compensation and liability insurance. Each city should have in its file a letter from their own insurance carrier authorizing them to work under the guidelines of this process, and that there will be no lapse in their insurance coverage either on employees, vehicles, or liability.

In the event of an accident, insurance deductibles on vehicles are paid, up to maximum of \$1,000, by the utility receiving services. These deductibles vary by policy.

Under no circumstances shall the assisting city or its employees, be liable to the requesting city, its inhabitants, or others, for any damages arising in any way as a result of the rendering of such aid or the failure to respond to a call for such aid. Also, under no circumstances shall the city requesting aid be liable to the assisting city, its inhabitants or others for any damage arising in any way from the response to such a request for aid or the rendering thereof.

Participating City Assistance

It is a participating municipality's individual responsibility to determine whether, in its sole discretion, responding to a mutual aid request for support is practicable and advisable. If a municipality is called upon and determines that it is not practicable or advisable to respond to the request, the request and lack of response shall not constitute or establish a basis for any claim against the municipality that fails or declines to respond.

MPUA Assistance

MPUA's sole responsibility is to facilitate the participation of cities in emergency assistance for their mutual benefit. MPUA is not responsible for any of the assistance performed or the failure to perform assistance under this process. The assisted city shall indemnify and hold harmless MPUA for and against, and pay or reimburse MPUA for any and all costs, expenses and losses which are actually sustained or incurred by MPUA as a result of any assistance rendered or not rendered to the assisted city.

ESF-13: LAW ENFORCEMENT

ESF-13 defines the organization, resources and procedures for law enforcement operations to meet the demands of a disaster situation that may threaten the health and safety of the citizens of Boone County.

Agencies with identified roles and responsibilities in this annex include, but are not limited to:

Ashland Police Department (APD)
Boone County Sheriff's Office (BCSO)
Centralia Police Department (CEPD)
Columbia Police Department (CPD)
Columbia Regional Airport Public Safety (COU APS)
Hallsville Police Department (HPD)
Sturgeon Police Department (SPD)
University of Missouri Police Department (MUPD)
Boone County Joint Communications (BCJC)
Boone County Office of Emergency Management (BCOEM)
Missouri Department of Conservation (MDC)
Missouri Department of Natural Resources (DNR)
Missouri State Highway Patrol (MSHP)
US Coast Guard (USCG)

SITUATION AND ASSUMPTIONS

SITUATION

The Boone County Sheriff is the chief law enforcement officer in the county, and as such, can enforce state statutes on all property in the county.

The Boone County Sheriff's Office (BCSO) provides law enforcement in the unincorporated areas of Boone County, as well as the municipalities which do not have their own law enforcement agencies. BCSO officers are dispatched by Boone County Joint Communications (BCJC).

The municipalities with police departments provide law enforcement within their respective city limits and enforce both city ordinances and state laws; these include the communities of Ashland, Centralia, Columbia, Hallsville and Sturgeon. These departments - except for Centralia - are also dispatched by BCJC. BCSO assists these municipal departments as necessary. The University of Missouri Police Department provides law enforcement services to the University campus and other University owned properties. MUPD maintains its own dispatch center.

The MSHP Water Patrol Division and the U.S. Coast Guard provide law enforcement on the waters of the state that are located within Boone County.

DNR Park Rangers provide law enforcement in State Parks property located within the county.

MDC conservation agents enforce wildlife/hunting laws and provide law enforcement on MDC property within Boone County.

The Boone County Sheriff's Office maintains the adult Correctional Facility, located at 2121 County Drive, Columbia, which houses detainees for the county. This facility has a maximum capacity for 210 inmates and operational capacity of 185. Back-up generators and fuel supplies are available for the jail and other buildings located on their property. Emergency procedures for the evacuation of inmates are in place and in accordance with the set policies of the Boone County Sheriff's Office.

Some employees of the law enforcement agencies of Boone County are trained in weather spotting, hazardous materials awareness, and other emergency support roles.

Detailed information on resources and points of contact can be found in the EOC Contact and Resource Guide.

ASSUMPTIONS

During a disaster, local law enforcement personnel will respond as directed in this plan.

Situations will arise that will tax or exceed local law enforcement capabilities.

Outside law enforcement resources (federal, state, and other local agencies) are available to support law enforcement operations in Boone County and will respond when needed.

CONCEPT OF OPERATIONS

GENERAL

In accordance with federal mandates, management of local disasters and emergencies will be initiated and conducted using the concepts and principles of the National Incident Management System (NIMS). On-scene management and coordination of responses will utilize the Incident Command System (ICS).

The law enforcement activities described in this annex are an extension of normal day-to-day activities and deal only with those situations that could completely exhaust all available resources.

ESF-13 will be coordinated by representation from one or all law enforcement agencies involved in the incident. Entities with ESF-13 responsibilities will provide liaisons to the EOC, if activated, to form an ESF-13 coordination group. Liaisons may locate to, and operate from, the EOC, or may retain a virtual presence with the EOC. The ESF-13 liaison(s) will coordinate law enforcement resource management, maintain situational awareness, and provide information to the EOC regarding law enforcement response efforts.

ESF-13 will prioritize, allocate and task assets in coordination with the other ESFs to support the disaster response and recovery efforts. Priorities will continually be reassessed to develop strategies and address the most critical needs.

Local resources will be used first before outside assistance is requested from mutual aid, the state and/or federal government. The first resources to be identified will be those that are under the control of, or are readily available to, the County and municipal governments.

The EOC will not interfere with the internal operations of the involved agencies but will monitor the situation and provide support as requested.

Mutual aid resources will remain under the authority of their home agencies but will be mission assigned by ESF-13 in the EOC and utilized on site by the Incident Commander.

Local law enforcement agencies will enforce appropriate state laws and local ordinances to maintain peace and order during an emergency/disaster situation. If additional law enforcement personnel, equipment, or special expertise is needed, mutual aid resources can be requested utilizing existing mutual aid agreements and/or statewide law enforcement mutual aid. The local law enforcement agency will remain its jurisdiction's primary law enforcement, while outside agencies will be tasked in support roles to the primary authority.

In the event a disaster is believed to be terrorist-related, the crime scene will be preserved to the extent possible, while still allowing rescue operations to be performed. See Appendix 4 for further information regarding terrorism response.

ASSIGNMENT OF RESPONSIBILITIES

PRIMARY AGENCIES

The agencies with primary responsibility to this plan are tasked with the following actions:

- Prioritization, allocation and/or tasking of public safety assets in support of disaster relief and recovery efforts.
- Providing liaison(s) and point of contact for ESF-13 at the EOC.
- Maintaining records of costs for supplies, resources and man-hours used in response to the disaster event.
- Maintaining standard operations guidelines (SOGs) that address public safety responsibilities and needs.
- Maintaining lists of potentially available public safety resources.
- Maintaining current mutual aid agreements, memoranda of understanding, and contractual resources to support disaster emergency public safety needs.

The chief of police or designee is the ESF-13 coordinator for each municipality within the county, as is the Sheriff or designee for Boone County. These coordinators are also specifically responsible for the following:

- Overall integration and management of law enforcement activities within their jurisdictions, including any outside resources responding to the disaster.
- Developing and maintaining agreements of understanding with neighboring law enforcement agencies.
- Training law enforcement personnel in their emergency management assignments.
- Establishing procedures to protect essential law enforcement records.
- Supporting recovery operations.

- Maintaining personnel call-up lists and developing procedures for notification.
- Protecting detainees and relocating them as necessary.
- Developing plans for providing and maintaining security for critical facilities, including the EOC, shelters, feeding facilities, etc.
- Providing traffic control.
- Protecting damaged/affected areas and property, by providing security and limiting access
- Assisting with evacuations.

DIRECTION AND CONTROL

In accordance with federal mandates, Boone County government, response agencies, and the municipalities within the county have adopted the National Incident Management System (NIMS) and the Incident Command System (ICS) as the standard for incident response and management.

In an emergency or disaster in which the EOC has been activated, an ESF-13 representative will operate from the EOC and coordinate support of law enforcement activities including information processing and resource management.

ESF-13 activities and missions will be coordinated by the ESF-13 representative or coordination group, with the supporting and assisting agencies retaining administrative direction and control over their resources. Coordination will be established with the EOC (if activated) and/or IC to prioritize and develop strategies and missions for response and recovery. Priorities will continually be reassessed to develop strategies and address the most critical needs.

Initial control at the disaster/emergency site will be established by the local law enforcement agency who will maintain contact with, and provide information to, the ESF-13 coordinator at the EOC.

Mutual aid law enforcement resource requests will go through the ESF-13 coordinator. Responding assets will be mission tasked by the EOC to the local jurisdiction to be utilized as needed. Mutual aid resources will be managed by the EOC and local incident commanders, but will retain the administrative oversight of their home agencies.

CONTINUITY AND SUCCESSION

Lines of succession and continuity of operations plans will be maintained by each department or agency.

The lines of succession for each law enforcement agency is defined within those agencies' protocols as below:

Ashland PD:

- Police Chief
- Deputy Chief
- Sergeant of Patrol

Boone County Sheriff's Office:

- Sheriff
- Chief Deputy

- Division Captains

Centralia PD:

- Police Chief

Columbia PD:

- Police Chief
- Deputy Chief of Police
- Patrol District Commander

Hallsville PD:

- Police Chief

MUPD:

- Chief of Police
- Assistant Chief of Police of Operations
- Assistant Chief of Police of Support Services

Sturgeon PD:

Records vital to the continuity of the ESF-13 functions are duplicated and stored at alternate locations.

ADMINISTRATION AND LOGISTICS

Specific operating procedures and protocols are maintained by the participating organizations.

Facilities and points of contact are maintained in the EOP Contact and Resource Guide.

The ESF-7 (Logistics) personnel operating from the EOC will provide logistical support for law enforcement personnel in support of the operation.

Communications for this function will be provided as outlined in the ESF-2 annex of this plan.

APPENDICES

Appendix 1: Law Enforcement Agency Contact Information

Appendix 2: Radio frequencies

Appendix 3: Special capabilities – K9s, SWAT, STAR, EOC, Crisis Negotiators, etc.

Appendix 4: Terrorism Incidents

Appendix 5: Terrorism Attachment A – National terrorism advisory system

ESF-13 APPENDIX 1: LAW ENFORCEMENT AGENCY CONTACT INFORMATION

**See EOC Contact and Resource Guide for further contact information*

Ashland Police Department

109 E Broadway

Ashland, MO 65010

Phone: (573) 657-9062 http://www.ashlandmo.us/departments/police_department/index.php

Boone County Sheriff's Office

2121 County Drive

Columbia, MO 65202

Phone: (573) 875-1111 <https://www.boonecountymo.org/sheriff/>

Centralia Police Department

114 S Rollins St.

Centralia, MO 65240

Phone: (573) 682-5182 <https://www.centraliamo.org/>

Columbia Police Department

600 W. Walnut St.

Columbia, MO 65201

Phone: (573) 874-7404 <https://www.como.gov/police/>

Hallsville Police Department

202 E Highway 124

Hallsville, MO 65255

Phone: (573) 696-3838 <https://hallsvillemissouri.wordpress.com/police/>

Sturgeon Police Department

303 E Station Dr.

Sturgeon, MO 65284

Phone: (573) 687-3321 <http://spd.sturgeon-mo.org/>

University of Missouri Police Department

901 Virginia Avenue

Columbia, MO 65211

Phone: (573) 882-7201 <https://www.mupolice.com/mupd/>

ESF-13 APPENDIX 2: RADIO FREQUENCIES FOR LAW ENFORCEMENT AGENCY USE

Main Law Network

Columbia Police Tactical Channel 2

Columbia Police Tactical Channel 3

Boone County Sheriff Tactical

Boone County Corrections Center

University of MO Police

State Highway Patrol

State Highway Patrol

State Highway Patrol

State Highway Patrol

State Highway Patrol

Law Mutual Aid

Point to Point

State Sheriff

ESF-13 APPENDIX 3: SPECIAL CAPABILITIES – K9S, SWAT, STAR, CRISIS NEGOTIATORS

[Information regarding special capabilities is maintained within the agencies and in the Boone County OEM EOC Contact and Resource Guide.]

ESF-13 APPENDIX 4: TERRORISM

PURPOSE

The purpose of this appendix is to establish a unified approach for emergency response agencies in the county to respond to and recover from a threat or act of terrorism. The response to a terrorist incident involves a coordinated effort between local, state and federal law enforcement agencies to resolve the immediate crisis, while at the same time working with federal, state and local emergency management officials to manage the consequences.

Federal authorities for terrorism include Presidential Decision Directive 39 (PDD-39), and Homeland Security Presidential Directive 5 (HSPD-5).

Boone County recognizes the responsibility for public health and safety, the need to plan for response to potential incidents of terrorism, and the need to exercise the procedures, policies, and guidelines set forth in this plan.

SITUATION

The county has assets that could be targets for terrorist activities. These include, but are not limited to:

- Federal, state, county and municipal government facilities and structures
- Chemical Facilities
- Medical facilities
- Religious facilities
- Businesses and manufacturing centers
- Airports, railroads, highways and navigable rivers
- Pipelines; power plants; public utilities; landmarks; and large public gatherings
- Agriculture
- Areas of mass congregation, i.e. sporting events, fairs, etc.

There exist resources statewide that are capable of response to incidents resulting from terrorist activity. These resources include hazardous materials response teams with enhanced capabilities for response to incidents involving nuclear or radiological materials, and biological and chemical agents. Some of these resources reside in Columbia and Boone County. Additional such resources are mobilized and deployed by the State Emergency Management Agency at the request of the affected local jurisdiction in support of response and recovery operations.

ASSUMPTIONS

Incidents related to terrorism may occur with little or no warning.

An act of terrorism involving weapons of mass destruction (WMD) in the county could immediately overwhelm the local response capabilities.

Should a terrorist incident occur, the county could be acting alone pending mobilization and deployment of other local, state and federal assets.

If appropriate personal protective equipment (PPE) is not readily available, entry into the contaminated area (hot zone) may be delayed until the arrival of trained and equipped emergency response personnel.

There is always potential of secondary devices targeting first responders.

No single agency at the local, state or federal level possesses the authority and/or expertise to act unilaterally on the issues associated with a threat or act of terrorism, particularly if WMD is involved.

Counter terrorism efforts including intelligence gathering and appropriate response training may reduce some incident potential.

Proper implementation of this annex can reduce the effects a terrorist attack and limit related exposure to the public.

CONCEPT OF OPERATIONS

Initial response operations are the responsibility of the local jurisdiction. The FBI is the Lead Federal Agency for all terrorist attacks and will establish a JOC for Direction and Control is one if needed. The MSHP has primary responsibility for coordinating the state level response.

Local public information operations will be coordinated from the EOC. Note: FEMA/FBI may establish a Joint Information Center (JIC).

Primary Objectives in Response to a Terrorist Act:

- Protect the lives and safety of the citizens and first responders.
- Isolate, contain, and/or limit the spread of any cyber-attack, nuclear, biological, chemical, incendiary or explosive device.
- Advise key personnel of the potential risk and situation.
- Notify emergency personnel, including medical facilities, of the hazards and anticipated casualties.
- Identify and establish control zones for suspected agent used.
- Identify the type of agent or devices used.
- Identify appropriate decontamination procedure and/or treatment.
- Make recommendations as to a possible course of action.
- Ensure that responders have appropriate equipment and personal protective equipment (PPE).
- Notify appropriate state and federal agencies.
- Provide accurate and timely public information.
- Preserve as much evidence as possible to aid investigations.
- Protect critical infrastructure.
- Maintain increased readiness status until the situation escalates or the decision to discontinue operations is given.

Response

Once terrorism is suspected, local law enforcement will notify and request assistance from state and federal agencies per existing operating guidelines and/or procedures (SOGs).

Local government departments and emergency response agencies will report to the EOC as dictated by the situation.

Designated public information officers (PIO) will coordinate all public information releases per ESF-15.

Organization

Response to a terrorism incident will be under the direction and control of the presiding commissioner. The coordinated response will be conducted from the EOC. The primary responders for terrorism are normally local law enforcement, fire, and county health and medical personnel. All other departments are considered support. Each jurisdiction should prepare an SOG and functional check list for response to a terrorism incident. In addition, an up-to-date list of emergency response personnel will be maintained and available.

Establishing Alert Level

The federal government is responsible to determine the nation's threat level (ESF-2 Appendix 6). However, it is up to the local jurisdiction to determine their appropriate threat level based upon the local current situation.

Notifications

Upon notification of a terrorist incident, the EMD will immediately contact the chief elected official and primary and support agencies.

OEM is responsible for contacting SEMA to inform them of the current situation and threat. Other local departments will follow their respective SOGs for notifications.

EOC Activation

The EOC will be activated at either the primary or alternate location. The EOC will maintain contact with appropriate local, state and federal agencies throughout the incident period.

If necessary, a Joint Operations Center (JOC) will be established by the Lead Federal Agency (LFA) and will be under the operational control of the Federal On-Scene Commander (OSC). The JOC is responsible for coordinating requests from the State. The OSC may request that a representative from the impacted jurisdiction be assigned to the JOC.

Law enforcement

Law enforcement will be actively engaged in the primary and ongoing response to a terrorist incident.

Before an event, there shall be development of, and maintenance and training on, SOGs of duties, roles and responsibilities for any terrorism incidents involving chemical, biological, radiological, nuclear and explosive (CBRNE) threats.

Upon occurrence and after the event, the law enforcement role will include the following:

- Provide an ESF-13 liaison to the EOC.

- Manage the incident using ICS and coordinate with other departments and agencies under a Unified Command.

Respond to requests for support/assistance from other local, state and federal agencies.

Maintain order, provide security, create and hold the perimeter, and control access to the incident scene(s), command post and other incident facilities.

Assist in evacuation/in-place protection notification of the affected area as needed.

Ensure scene security and evidence preservation pending arrival of the FBI and assist other investigative authorities.

Fire departments

Local fire agencies will also be involved in immediate and ongoing response to a terrorist incident. Initial response will include determining the nature and scope of the incident in coordination with law enforcement. Initial and continuing response activities will include fire suppression, search and rescue, medical care and hazardous materials control. On-site fire resources will establish site security areas and hazard exclusion zones in accordance with established procedures and guidelines.

A fire agency liaison will represent ESF-4 in the EOC and coordinate with law enforcement and other agencies regarding support and resource requirements, and situation status information.

Fire agency preparedness for potential terrorist events includes developing and maintaining internal guidelines to identify specific roles and responsibilities of personnel in response to terrorism incidents involving CBRNE.

Health Department

The Columbia Boone County Public Health Department (PHHS) will also provide a liaison to the EOC to represent ESF-6 in the event of a terrorist event. The PHHS will provide an environmental analysis and provide personnel safety information with guidance from the Missouri Department of Health and Senior Services and the Centers for Disease Control and Prevention. The County Health Director is responsible to determine the health risk, monitor response personnel and public exposure to chemical, biological, and radiological agents, and recommend epidemiological and toxicological solutions to deal with public health issues involved in a terrorist incident. (See ESF-8)

The County Health and Medical Director or a designated representative will assist the PIO on health and medical issues and in broadcasts concerning public and individual health issues.

Public Works

County and municipal public works agencies will respond to emergency requests from the EOC by providing resources, i.e. trucks, earth moving equipment and other needed assets/materials along with operators to reduce hazards and minimize secondary damage. Barricades can also be made available to assist in evacuation and/or scene security.

Emergency Medical Services

The emergency medical services (EMS) are responsible for directing the medical response and on-scene operations, for identifying anticipated resource requirements, and allocating resources accordingly. EMS coordinates mutual aid in conjunction with the ESF-8 coordination group.

CONTINUITY AND SUCCESSION

Line of Succession for Terrorism

The line of succession for the Presiding Commissioner is through the District Commissioners in order of seniority.

All local departments listed above are required to maintain a line of succession of at least three persons.

ADMINISTRATION AND LOGISTICS

Administration

To implement this appendix, an incident must be designated a suspected or actual terrorist threat or incident by the chief elected official.

Procedure for dealing with expenses incurred and liability for actions and injuries are outlined in local ordinances, mutual aid agreements and this plan.

A post-incident report and critique shall be the responsibility of the lead agencies with input from all involved agencies. This will be used for plan modifications and training exercises.

Logistics

On-hand and stockpiles of critical materials and supplies should be inventoried and updated annually to ensure operational readiness.

Emergency purchasing authority may be authorized by the chief elected official if a terrorist incident has occurred.

The cleanup, removal and disposal of contaminated materials will be handled with the same care that was used during the incident. The MO Department of Natural Resources and the US Environmental Protection Agency may provide assistance in removal, disposal oversight, technical considerations and funding.

ESF-13 APPENDIX 4: ATTACHMENT A – NATIONAL TERRORISM ADVISORY SYSTEM

National Terrorism Advisory System (NTAS) alerts communicate information about terrorist threats by providing timely, detailed information to the public, government agencies, first responders, public sector organizations, airports and other transportation hubs.

NTAS Alerts

The National Terrorism Advisory System (NTAS) website is the authoritative source for information about the current NTAS level. It will always contain the most up-to-date information on the Advisory System status. <https://www.dhs.gov/national-terrorism-advisory-system>

NTAS Alerts will only be issued when credible information is available. After reviewing the available information, the Secretary of Homeland Security will decide, in coordination with other Federal entities, whether an NTAS Alert should be issued.

The NTAS Alerts will be based on the nature of the threat: in some cases, alerts will be sent directly to law enforcement or affected areas of the private sector, while in others, alerts will be issued more broadly to the American people through both official and media channels.

These alerts will include a clear statement that there is an imminent threat or elevated threat.

- An imminent threat warns of a credible, specific, and impending terrorist threat against the United States.
- An elevated threat warns of a credible terrorist threat against the United States.

NTAS Alerts contain a sunset provision indicating a specific date when the alert expires - there will not be a constant NTAS Alert or blanket warning that there is an overarching threat. If threat information changes for an alert, the Secretary of Homeland Security may announce an updated NTAS Alert. All changes, including the announcement that cancels an NTAS Alert, will be distributed the same way as the original alert.

ESF-14: RECOVERY/LONG-TERM RECOVERY

[Note: ESF-14 will be augmented by the Boone County Recovery Plan – which will contain 6 Recovery Support Functions (RSFs) - due for release in 2022.]

This ESF provides guidance for Boone County and its municipalities in concert with other jurisdictions, citizens, non-governmental organizations and businesses to expedite recovery of the community after a disaster. It is intended to guide the county's recovery by addressing the physical, emotional and financial well-being of the impacted community. Recovery includes restoration and strengthening of key systems, critical functions, services, vital resources, facilities, programs and infrastructure that are crucial to the economic stability, vitality and long-term sustainability of the communities within Boone County. This ESF also establishes a working strategy to fulfill unmet needs for Boone County citizens who are survivors of disaster situations.

Agencies with identified roles and responsibilities in this annex include, but are not limited to:

Boone County Office of Emergency Management (BCOEM)
Columbia/Boone County Public Health and Human Services (PHHS)
Boone County Community Services
Columbia Chamber of Commerce
Columbia Housing Authority (CHA)
Faith-based organizations
Human services providers
Heart of Missouri United Way
Mid-Mo Regional Planning Commission
Missouri Department of Social Services (MDSS)
Missouri Interfaith Disaster Response Organization (MIDRO)
Missouri State Emergency Management Agency Human Services Branch (SEMA)
Missouri Voluntary Organizations Active in Disasters (MOVOAD)
Private businesses
Regional Economic Development, Inc. (REDI)
United Way 2-1-1 of Greater St. Louis

SITUATION AND ASSUMPTIONS

SITUATION

Boone County has an estimated population of 178,271 persons and 67,833 households (2016 US Census estimate).

Boone County is subject to disasters that could result in a variety of unmet needs which may include housing and construction assistance, feeding, clothes and furniture, physical and mental health, energy, funeral assistance and job placement. Disaster unmet needs do not include the challenges that existed for the individual or family before the disaster.

ASSUMPTIONS

Recovery could span weeks, months or years.

Recovery will not recreate the same community that was in existence prior to the disaster.

Outside assistance from both private and governmental sources will be available if required and/or requested.

Government agencies cannot handle the burden of human service needs without the assistance of volunteer, private, public and faith based community organizations.

Community organizations have an important role in strengthening the capacity of local communities to resist and recover from the effects of a disaster. Coordinated planning and response by social service agencies, faith based organizations, and other community organizations will result in efficient, effective and expedient service delivery in a disaster.

Cooperative agreements between agencies can result in more efficient recovery from disaster.

Many organizations and businesses, such as utility companies, have their own recovery plans that will assist them in their recovery and that of the community.

CONCEPT OF OPERATIONS

GENERAL

In accordance with federal mandates, management of local disasters and emergencies will be initiated and conducted using the concepts and principles of the National Incident Management System (NIMS). On-scene management and coordination of responses will utilize the Incident Command System (ICS).

The recovery activities described in this annex are an extension of normal day-to-day activities and deal only with those situations that could completely exhaust all available resources.

ESF-14 will be coordinated by representation from one or all recovery agencies involved in the incident. Entities with ESF-14 responsibilities will provide liaisons to the EOC, if activated, to form an ESF-14 coordination group. Liaisons may locate to, and operate from, the EOC, or may retain a virtual presence with the EOC. The ESF-14 liaison(s) will coordinate recovery resource management, maintain situational awareness, and provide information to the EOC regarding response and recovery efforts.

ESF-14 will prioritize, allocate and task assets in coordination with the other ESFs to support the disaster response and recovery efforts. Priorities will continually be reassessed to develop strategies and address the most critical needs.

Local resources will be used first before outside assistance is requested from mutual aid, the state and/or federal government. The first resources to be identified will be those that are under the control of, or are readily available to, the County and municipal governments.

The EOC will not interfere with the internal operations of the involved agencies but will monitor the situation and provide support as requested.

Mutual aid resources will remain under the authority of their home agencies but will be mission assigned by ESF-14 in the EOC and utilized on site by the Incident Commander.

Actions to promote short-term and long-term recovery will commence concurrently with response operations, if possible. EOC leadership will set priorities for recovery of critical functions, services, vital resources, facilities, programs and infrastructure. Evaluation of the incident's impact on the public will

occur throughout the response phase and will influence the direction of recovery operations related to individuals and businesses. Damage assessment activities will begin in the response phase to expedite application for federal disaster assistance funds.

Short-term recovery will begin early in the response phase focusing on restoring critical services and infrastructure such as utilities, government operations, medical services, transportation routes, debris removal, abatement of dangerous buildings and providing support to residents and businesses. Continuity of Operations Plans (COOP) will be activated, if necessary, to ensure continuity of critical functions, programs and services.

Long-term recovery will focus on establishing a “new normal” for an economically sustainable Boone County. Long-term recovery components include rebuilding public infrastructure, ensuring adequate housing stock, coordinating delivery of social and health care services, refining land-use planning to impact mitigation goals, supporting businesses to help the economy rebound, and maximal utilization of federal and state aid to recover disaster costs.

Processes included in short-term recovery may continue during long-term recovery, albeit with different priorities and emphasis. For example, emergency road repairs made during or immediately after the response phase might suffice for a time but will ultimately need to be brought up to normal road standards during the long-term recovery phase.

When extensive recovery activities are required because of a disaster, PHHS with the support of BCOEM may coordinate the creation of a long-term recovery committee comprised of lead recovery partner agencies to manage disaster case management. The committee will exist until all the case recovery plans have been completed.

ASSIGNMENT OF RESPONSIBILITIES

PRIMARY AGENCIES

The agencies with primary responsibility to this plan are tasked with the following actions:

- Prioritization, allocation and/or tasking of long-term recovery assets in support of disaster relief and recovery efforts.
- Providing liaison(s) and point of contact for ESF-14 at the EOC.
- Maintaining records of costs for supplies, resources and man-hours used in response to the disaster event.
- Maintaining standard operations guidelines (SOGs) that address long-term recovery responsibilities and needs.
- Maintaining lists of potentially available long-term recovery resources.
- Maintaining current mutual aid agreements, memoranda of understanding, and contractual resources to support disaster long-term recovery needs.

Overall responsibility for recovery rests with local government. Boone County and its municipalities have responsibility for recovery operations within their jurisdictions, utilizing the assistance of governmental, volunteer and non-governmental (NGO) recovery partners.

COLUMBIA/BOONE COUNTY PUBLIC HEALTH AND HUMAN SERVICES (PHHS)

PHHS is responsible for convening and coordinating the activities of a long term recovery committee with the objective of meeting unmet family and individual needs resulting from a disaster or emergency.

BOONE COUNTY OFFICE OF EMERGENCY MANAGEMENT (BCOEM)

Boone County OEM will coordinate recovery efforts through the collection and dissemination of information, coordination of resource logistics and the facilitation of inter-governmental/departmental communication. The EOC will be the focal point for triage and prioritization decisions regarding the restoration of critical services and infrastructure and providing emergent support to residents and businesses.

Specific OEM tasks associated with recovery include:

- Coordination with other entities for housing, feeding and support needs for individuals and families affected by the incident.
- Coordinating damage assessments and the collection of information from public, private and business sectors to support the state’s effort to obtain a Presidential Disaster Declaration.
- Coordinating meetings among local public jurisdictions, SEMA and FEMA to fulfill the documentation requirements for obtaining federal recovery program assistance.
- Setting up disaster recovery centers (DRCs) in conjunction with the State Emergency Management Division (SEMA) and the Federal Emergency Management Agency (FEMA).
- Supporting mitigation measures to diminish effects of future disasters.
- Supporting the long-term recovery committee to provide disaster case management to impacted residents.
- Activating and coordinating a Boone County Community Disaster Recovery Task Force after major events that require a broad vision of how the County will recover from those events over the long-term.

SUPPORT AGENCIES

HUMAN SERVICES PROVIDERS

Human services play a large role in recovery by providing individuals, families and the community with a wide range of assistance, including employment, food, housing, shelter, clothing, legal, medical and financial aid, and funeral assistance. Columbia/Boone County Public Health and Human Services maintains relationships with human service providers in and around Boone County and the state, and is a primary agency for coordinating services from these agencies.

PUBLIC INFORMATION OFFICERS

News and social media will be utilized to share information with the public regarding opportunities for filling unmet needs. The media can be engaged in communicating to the public the need for volunteers, and share details on how donations of cash, goods and services can be made. The media should be fully utilized for promoting the maximum utilization of social services by those in need.

DIRECTION AND CONTROL

Boone County government, response agencies, and the municipalities within the county have adopted the National Incident Management System (NIMS) and the Incident Command System (ICS) as the standard for incident response and management.

In accordance with federal mandates, management of local disasters and emergencies will be initiated and conducted using the concepts and principles of NIMS. On-scene management and coordination of responses will utilize ICS.

Long-term recovery activities and missions will be coordinated by the ESF-14 representative or coordination group, with the supporting and assisting agencies retaining administrative direction and control over their resources. Coordination will be established with the EOC (if activated) and/or IC to prioritize and develop strategies and missions for response and recovery.

Priorities will continually be reassessed to develop strategies and address the most critical needs.

ESF-14 liaisons from primary and support agencies may locate to, and operate from, the EOC, or may retain a virtual presence with the EOC. Resources in the field will keep the ESF informed of their activities.

CONTINUITY AND SUCCESSION

Lines of succession and continuity of operations plans are maintained at the agency or department level.

Records vital to the continuity of the ESF-14 functions are duplicated and stored at alternate locations.

ADMINISTRATION AND LOGISTICS

Specific operating procedures and protocols are maintained by the participating organizations.

Facilities and points of contact are maintained in the EOP Contact and Resource Guide.

Several agencies provide disaster case management, which includes coordination, maintenance and protection of all documentation.

Mutual aid agreements, memoranda of understanding and contractual resource lists regarding transportation operations are maintained within individual agencies.

Procedures for use of forms, compiling information, and providing data to the EOC are located in the EOC SOG.

If possible, procurement of necessary supplies will be accomplished through normal acquisition channels. Supplies and other resources will be coordinated by ESF-7 Logistics.

ESF-15: EMERGENCY PUBLIC INFORMATION/ EXTERNAL AFFAIRS

ESF-15 addresses the timely release of accurate information to the residents and visitors of Boone County and its municipalities in the event of an emergency or disaster.

Agencies with identified roles and responsibilities in this annex include, but are not limited to:

- Boone County and municipal public information officers
- Boone County Joint Communications (BCJC)
- Boone County Office of Emergency Management (BCOEM)
- Media outlets
- Private stakeholder agency public information officers

SITUATION AND ASSUMPTIONS

SITUATION

Boone County could be affected by several types of disasters that would require warning and the dissemination of information and instructions to the public.

Disaster/emergency response operations tend to draw wide media attention that may involve national exposure, especially through online commercial and citizen reporting, and social media.

Boone County is served by various news media which would be among the first resources utilized to disseminate public information in an emergency or disaster situation. A listing of media outlets can be found in Appendix 1 of this annex.

When more than one jurisdiction or non-local government department PIO is involved during emergency operations, this may require coordination of public information through a Joint Information System (JIS).

Sample news releases have been developed and can be found in Appendix 7 to this annex.

ASSUMPTIONS

Citizens and visitors to Boone County rely on the delivery of emergency information during emergencies and disasters.

During an actual or impending emergency or crisis, the public will expect local government to provide specific information relating to safety, survival and protection of property.

A disaster in Boone County would place a heavy demand on local public information capabilities. Widespread or major disasters may result in state and national media coverage.

The news media will cooperate with local officials in the dissemination of information to the public.

Media personnel from outside Boone County will not be familiar with local news release procedures.

News media personnel may attempt to obtain information from other than "official sources."

An effective public information program can potentially minimize further casualties and damages, keep rumors to a minimum and provide education to the public.

For non-English speaking residents, translation of emergency information may be provided by foreign language staff from the area's universities and colleges. Hearing and sight-disabled persons may also need the assistance of interpreters and readers.

CONCEPT OF OPERATIONS

GENERAL

In accordance with federal mandates, management of local disasters and emergencies will be initiated and conducted using the concepts and principles of the National Incident Management System (NIMS). On-scene management and coordination of responses will utilize the Incident Command System (ICS).

The ESF-15 activities described in this annex are an extension of normal day-to-day activities and deal only with those situations that require public information communications coordination beyond normal processes.

ESF-15 will be coordinated by representation from one or all agencies and/or jurisdictions involved in the incident. Agency PIOs will provide liaisons to the EOC, if activated, to form an ESF-15 coordination group, or to a Joint Information Center (JIC) to form a Joint Information System (JIS). Liaisons may locate to, and operate from, the EOC or JIC, or may retain a virtual presence with the EOC. The ESF-15 liaison(s) will coordinate public information resource management, maintain situational awareness, and provide information to the EOC regarding response and recovery efforts.

ESF-15 will prioritize, allocate and task assets in coordination with the other ESFs to support the disaster response and recovery efforts. Priorities will continually be reassessed to develop strategies and address the most critical needs.

Local resources will be used first before outside assistance is requested from mutual aid, the state and/or federal government. The first resources to be identified will be those that are under the control of, or are readily available to, the County and municipal governments.

The EOC will not interfere with the internal operations of the involved agencies but will monitor the situation and provide support as requested.

Mutual aid resources will remain under the authority of their home agencies but will be mission assigned by ESF-15 and utilized on site by the Incident Commander.

The jurisdiction having authority over the incident will provide the primary incident PIO or will delegate that position. The Presiding Commissioner, or designee, will be the PIO for Boone County.

If the emergency/disaster warrants activation of a state and/or federal response, state and/or federal PIOs will be included in the JIS.

The Incident Commander may appoint an on-scene PIO for direct media relations. The on-scene PIO will coordinate activities with the designated PIO in the EOC and/or JIC.

RELEASE OF INFORMATION

Dissemination of public information will utilize all available local print and broadcast news media including telecommunications or electronic social media, newspapers, radio stations, broadcast television stations, cable and video service providers, social media sites and government and partner websites.

Release of official public information will occur in a timely manner and will be coordinated with, and approved by, the chief administrative official or designee and the Incident Commander. Only information released by the chief elected official, chief administrative official or others designated for this purpose will be considered official. Response organizations are responsible for coordinating with the designated PIO and for clearing press releases with the chief administrative official before releasing information to the media or the public. Any person, department, or agency releasing information to the public of their own volition will bear the responsibility for legal or moral ramifications and repercussions resulting from that release.

PUBLIC INFORMATION BRIEFINGS

Briefings for news media personnel will be conducted by the designated PIO at the media room located within the Emergency Communications Center at 2145 County Drive in Columbia, or other locations as directed by the chief administrative official.

RUMOR CONTROL AND SENSITIVE INFORMATION

A rumor control section will be established to answer inquiries, and to monitor news and social media reporting to insure the public is receiving accurate information. The JIS PIOs will also coordinate with state, federal and private sector agencies to obtain accurate technical information (i.e. health risks, weather, etc.) when preparing releases and responding to inquiries.

The designated PIO along with the administrative officials will establish procedures to inform families on the status of relatives who are injured, missing or deceased.

ASSIGNMENT OF RESPONSIBILITIES

PRIMARY RESPONSIBILITIES

The agencies with primary responsibilities to this plan are tasked with the following actions:

- Prioritization, allocation and/or tasking of external affairs assets in support of disaster relief and recovery efforts.
- Providing liaison(s) and point of contact for ESF-15 at the EOC.
- Maintaining records of costs for supplies, resources and man-hours used in response to the disaster event.
- Maintaining standard operations guidelines (SOGs) that address external affairs responsibilities and needs.
- Maintaining lists of potentially available external affairs resources.
- Maintaining current mutual aid agreements, memoranda of understanding, and contractual resources to support disaster emergency external affairs needs.

AGENCY SPECIFIC PUBLIC INFORMATION OFFICERS

The PIOs are responsible for the following:

- Preparing and disseminating public information and warnings in coordination with the other ESFs and with approval from the IC and/or authority having jurisdiction over the event.
- Represent and advise the IC on all public information matters relating to the management of the incident.
- Ensure the IC approves the release of all incident-related information.
- Coordinate and integrate public information functions across jurisdictions and functional agencies as required.
- Develop accurate and complete information on the incident for both internal and external consumption.
- Coordinate the overall emergency public information efforts of local government.
- Developing emergency public information (EPI) materials for visually and hearing-impaired persons, as well as for any non-English speaking groups.
- Establishing a rumor control section.
- Preparing and disseminating evacuation instructions which include the following types of information:
 - Threat specific information
 - Definition of the population at risk
 - Evacuation routes
 - Suggested types and quantities of items that evacuees should take with them
 - Locations of reception sites, shelters, feeding facilities and medical clinics in the reception area(s)
 - Staging areas/pick-up point locations for evacuees needing transportation

ESF-8 will assist the designated PIO in the development of materials that describe the health risks associated with each hazard, the appropriate self-help or first-aid actions, and other survival measures.

ESF-2 will coordinate communications for emergency public information, including EAS monitoring.

DIRECTION AND CONTROL

In accordance with federal mandates, Boone County government, response agencies, and the municipalities within the county have adopted the National Incident Management System (NIMS) and the Incident Command System (ICS) as the standard for incident response and management.

In an emergency or disaster in which the EOC has been activated, an ESF-15 representative will operate from the EOC or JIC and coordinate ESF-15 activities including information processing and resource management.

ESF-15 activities will be coordinated by an ESF-15 representative or through the JIS, with the supporting and assisting agencies retaining administrative direction and control over their PIOs. Coordination will be established with the EOC (if activated) and/or IC to prioritize and develop strategies for information

dissemination. Priorities will continually be reassessed to develop strategies and address the most critical information needs.

CONTINUITY AND SUCCESSION

Lines of succession and continuity of operations plans are maintained at the agency or department level. Records vital to the continuity of the ESF are duplicated and stored at alternate locations.

ADMINISTRATION AND LOGISTICS

Specific operating procedures and protocols are maintained by the participating organizations.

Resources and points of contact are maintained in the EOP Contact and Resource Guide

A chronological file and log of all news releases during the disaster will be maintained in the EOC. See Appendix 4 for the Emergency News Release Log.

Procedures for use of forms, compiling information, and providing data to the EOC are located in the EOC SOG.

The EOC will provide support and resources at the request of the incident commander.

Supply requisitions/resource requests will be made through normal channels to the extent possible, but will be made through the EOC when necessary and coordinated by ESF-7 Logistics. Unusual expenditures will be directed to the Emergency Management Director and coordinated with the jurisdictional purchasing agents as per documented purchasing procedures

Each agency will track costs and personnel hours associated with the disaster to provide to OEM for disaster declaration activities. Accurate records of hours worked, and supplies used must be reported to the EOC for use in determining the total cost of the disaster. All actions taken must be recorded as they are essential for future planning and mitigation, response and recovery, and training and exercise.

Communications for this function will be provided as outlined in the ESF-2 annex of this plan.

APPENDICES

Appendix 1 - News Media Outlets

Appendix 2: Joint Information Center (JIC) Resources

Appendix 3: Format and Procedures for News Releases

Appendix 4: Emergency News Release Log

Appendix 5: News Media Queries

Attachment A – News Media Query Form

Appendix 6: Sample News Releases

Attachment A - News Release sample format

Attachment B - Flood Evacuation Ordered

Attachment C - Hazardous Materials Incident

Attachment D - Earthquake (No Information Available)

Attachment E - Earthquake (Update)

Appendix 7: National Homeland Security Advisory System (Terrorism Threat Levels)

Appendix 8: Public Information Guidelines for Terrorist Incidents

ESF-15 APPENDIX 1: NEWS MEDIA OUTLETS

KOMU TV8

5550 Old 63 S
Columbia, MO 65201
573-882-8888
Fax (573) 884-5353

KMIZ-TV Channel 17 (ABC)

501 Business Loop 70 E
Columbia, MO 65201
573-449-0917
(573) 449-1700
Fax (573) 449-6271

KFRU

503 Old 63 N
Columbia, MO 65201
573-441-4141

KRCG-TV Channel 13 (CBS)

Jefferson City
(573) 896-5144
Fax (573) 896-5193

KNLJ-TV Channel 25, New Bloomfield

(573) 896-5105
Fax (573) 896-4376

KMOS-TV (PBS), CMSU, Warrensburg

(660) 543-4155
Fax (660) 543-8863

ESF-15 APPENDIX 2: JOINT INFORMATION CENTER (JIC) RESOURCES

Staff

Chief Public Information Officer (1)
Assistant (or deputy) Chief Public Information Officer (1)
News Section (2)
Newsletter/Literature Section (2)
Rumor Control Section (1 +)
Documentation Section (still photographer and video photographer (2 +)
Internet Section (1)
Translation Section (1 +)

Resources

Public Communications Officer Director (1)
Public Communications Assistant officer (1)
Water and Light (1)
Public Works Department (1)
Fire Department (1)
Police Department (1)
Parks and Recreation (1)
E-Government Coordinator
City Channel Coordinator
Health & Human Services

County Resources

As assigned

Logistics

Computers - desk-top (3), Notebook (1+)
Desks with chairs (4)
Fax machine (1)
Easel & Flip Charts (2)
Telephones (4)
Administrative supplies
Access to a conference room for press briefings
Copier/Scanner/Printer (1) with sufficient toner

Communications

Two-way radio (2 sets)
Cellular phone (2)
Computer Notebook (1 +)
Phone Directory

ESF-15 APPENDIX 3: FORMAT AND PROCEDURES FOR NEWS RELEASES

Format

Name, address, email address, and telephone number of the news release initiator.

Text of the news release.

Substantiating records for the release.

Date and time released.

How and to whom the news release was issued.

Release Procedures

Verify the authenticity of the information contained in the release.

Verify that a duplicate release has not already been made.

Prepare the release in the format listed above.

Determine if the information contained in the release is in the public interest and will not create unwarranted or unnecessary fear, anguish, or other adverse reactions among the public. However, news releases will not be withheld simply to avoid political or public official embarrassment should the situation so warrant.

News releases will be distributed fairly and impartially to the news media.

Copies of all news releases will be filed chronologically, and logged in the release log (Appendix 3).

Copies of all news releases will be furnished to the rumor control section.

ESF-15 APPENDIX 5: EMERGENCY NEWS RELEASE LOG

EMERGENCY NEWS RELEASE LOG					
No.	DATE	TIME	SUBJECT OR TITLE	WRITER	AUTHORIZED BY:

ESF-15 APPENDIX 5: NEWS MEDIA QUERIES

Queries from the media and public must be tracked and responded to in a timely fashion. In an emergency environment, it is difficult to keep track of all activities that are occurring. News releases provide a historical record of activities undertaken during an emergency. All queries will be documented in chronological order on a Media Query Form (Attachment A to this Appendix).

ESF-15 APPENDIX 5: ATTACHMENT A - NEWS MEDIA QUERY FORM

News Media Query Form

Taken by _____ Time _____ Date _____

From _____ of _____

Phone Number _____ Deadline _____

Question(s)

Response:

Source of Information/Coordination: _____

Approved by: _____

Given to: _____ Time _____ Date _____

Method of Release: Phone _____ Verbally _____ Printed _____ FAX _____ E-Mail _____ Other _____

Given by: _____

ESF-15 APPENDIX 6: SAMPLE NEWS RELEASES

ESF-15 APPENDIX 6: ATTACHMENT A - NEWS RELEASE SAMPLE FORMAT

(LETTERHEAD)

FOR IMMEDIATE RELEASE

(date)

Release No. _____

CONTACT: (Name of person for immediate contact)

(Phone Number w/area code - - must be accessible 24/7)

(News release title)

(Columbia, MO) - (News release should begin with the most important information regarding the situation. Should have information about the “5 w’s and H” - WHO? WHAT?, WHERE?, WHEN?, WHY?, and HOW? Release must be factual throughout. Do not speculate!

Indicate whether any action is required of those affected.

Add any additional information that is germane to the situation. This is where you can do a “tie-back” to the event or do a brief recap if there has been previous information released. Again, do not speculate.

Include contact information for public use, if available. Examples are phone numbers, e-mail addresses, physical locations, contact names, etc. Every effort should be made to ensure that contact information includes contacts that can be accessed, i.e., a phone number that is staffed during business hours is of no use after hours and might result in frustrated callers.

(If known, indicate when the next update will be given.)

ESF-15 APPENDIX 6: ATTACHMENT B – FLOOD EVACUATION ORDER

FLOOD EVACUATION ORDERED

This is _____. The flooding situation continues in parts of _____ (county/city) and may worsen.

For your safety, I am asking that you leave the _____ area as soon as possible (give boundaries of local area, evacuation routes).

Be sure to take essential items -- medicine, special foods, personal items, baby supplies, clothing, money, and valuable papers -- but do not overload your car. Secure your home before you leave. Be sure to check on any neighbors who may need assistance.

If you cannot stay with relatives or friends outside of the evacuation area, go to (one of) the Red Cross shelter(s) at _____.

Pets may be allowed near some American Red Cross shelters. If you cannot make arrangements for someone outside the evacuation area to take care of your pet, (give instructions) _____. Do not allow your pet to run loose. If you cannot make arrangements for your large animals, (give instructions) _____.

ESF-15 APPENDIX 6: ATTACHMENT C – SAMPLE HAZARDOUS MATERIALS INCIDENT MESSAGE

HAZARDOUS MATERIALS INCIDENT

At approximately ____am/pm today, a spill/release of a potentially hazardous substance was reported to this office by (a private citizen, city employee, etc.) . (Police/Fire) units were immediately dispatched to cordon off the area and direct traffic. The material was later determined to be (describe) , a (hazardous/harmless) (chemical, gas, substance, material) which, upon contact, may produce symptoms of _____.

Precautionary evacuation of the (immediate/X-block) area surrounding the spill was (requested/required) by (agency) .

Approximately (number) persons were evacuated.

Clean-up crews from (agency/company) were dispatched to the scene and normal traffic had resumed by (time) , at which time residents were allowed to return to their homes.

There were no injuries reported -OR- _____ persons, including (fire/police) personnel, were treated at area hospitals for _____ and (all/number) were later released. Those remaining in the hospital are in _____ condition.

Response agencies involved were _____.

ESF-15 APPENDIX 6: ATTACHMENT D – SAMPLE EARTHQUAKE MESSAGE (NO INFORMATION AVAILABLE)

EARTHQUAKE (NO INFORMATION AVAILABLE)

This is _____ at the _____. An earthquake of undetermined magnitude has just been felt in the _____ area.

At this time, we have no confirmed reports of injuries or damage. Police and fire units are responding to the area. We will keep you informed as reports come in. Meanwhile, be prepared for aftershocks.

If shaking begins again, quickly seek shelter under a sturdy piece of furniture or in a supporting doorway. If your house has been damaged and you smell gas, shut off the main gas valve. Switch off electrical power if you suspect damage to the wiring. Do not use your telephone unless you need emergency help.

ESF-15 APPENDIX 6: ATTACHMENT E – SAMPLE EARTHQUAKE MESSAGE (UPDATE)

UPDATE ON EARTHQUAKE

This is _____ at the _____. The magnitude of the earthquake which struck the _____ area at (time) today, has been determined to be _____ on the Richter scale. The epicenter has been fixed at _____ by (scientific authority).

This office has received reports of _____ deaths, _____ injuries, and _____ homes damaged. No dollar figure is yet available. Police and fire units are on the scene to assist residents. (Continue with summary of the situation.)

After shocks continue to be felt in the area. If you feel shaking, quickly seek shelter under a sturdy piece of furniture or in a supporting doorway. Do not use your telephone unless you need emergency help.

ESF-15 APPENDIX 7: NATIONAL HOMELAND SECURITY ADVISORY SYSTEM (TERRORISM THREAT LEVELS)

In response to the September 11th, 2001 attacks, the U.S. Department of Homeland Security developed a National Homeland Security Advisory System to warn law enforcement officials, government, businesses, and the public about the current likelihood of a terrorist attack against the United States. The system is designed to keep the nation appraised of changes in the threat level via announcements disseminated by the National Warning System and the news media.



ESF-15 APPENDIX 8: PUBLIC INFORMATION GUIDELINES FOR TERRORIST INCIDENTS

Effective public information capabilities and coordination of information represents a crucial function for federal, state and local law enforcement officials during a terrorist incident response. Development and dissemination of timely, accurate and appropriate information during a suspected or actual terrorist incident - utilizing all forms of available media - will substantially help to ensure public safety, maintain order, and minimize rumors and misinformation.

ASSUMPTIONS

A terrorist incident impacting lives and property will draw statewide, national and eventually worldwide media attention in a rapid period of time.

No single agency at the local, state, federal or private level possesses the authority and expertise to act unilaterally in response to threats or acts of terrorism, particularly if weapons of mass destruction (WMD) are involved.

The unique roles, responsibilities, and jurisdictions of the various local, state, and federal agencies involved in terrorist response operations require a coordinated and integrated approach in the dissemination of public information through a Joint Information Center (JIC).

The media provides an invaluable service to government and the public in alerting the public of potential or actual hazardous situations, and providing the means to quickly disseminate protective action guidance.

The operational objectives of maintaining public safety and security during terrorist incidents may conflict with the public's right to know during the response to these events.

The type of information gathered by the media and the manner in which it is disseminated could possibly precipitate additional actions by the terrorist group, or compromise the effectiveness, safety and security of emergency operations, or jeopardize the lives of emergency workers, hostages or the general population.

Some media outlets have already established guidelines in handling terrorist events.

EXTERNAL AFFAIRS/PIO FUNCTIONS - LAW ENFORCEMENT PHASE

Initially, the public information function for any emerging disaster/emergency event will be handled by local officials, possibly in conjunction with incoming state and federal responders, depending on the scope of the incident. The fact that an emergency/disaster situation is a result of a terrorist act may not be known immediately during the initial emergency response. Therefore, standard public information procedures described elsewhere in this annex and in ESF-2 Communications would be carried out in the initial phase. However, the following information/procedures serve as general guidelines applicable at the point when a terrorist threat/incident impacting Boone County has been determined.

In accordance with Presidential Decision Directive (PDD) 39, the FBI would be the lead federal agency for response to a terrorist incident in Boone County. The FBI coordinates closely with local law enforcement authorities to provide a successful law enforcement resolution to the incident. At the same time, state and local governments assist as required, including disaster recovery needs.

In such an event, a Federal Joint Operations Center (JOC) will be activated for coordinated response. A Joint Information Center (JIC) is included as part of the JOC operations. Prior to a JIC being established, all public information releases will be coordinated, to the best extent possible, with incoming state and federal authorities. After being established, the JIC and information released to the public will be under operational control of the FBI in coordination with all local, state and federal agencies involved in the event.

The JIC will serve as the single source of information to the public and the press. Once a JIC is established, all press releases and press requests will be developed, coordinated, reviewed and disseminated through this group.

Throughout the response, agencies will continue to coordinate incident-related information, including public protective actions guidance, if needed, through the JIC. Protective actions and other essential information may be disseminated via Emergency Alert System (EAS) messages to the local EAS radio station, and through RAVE alert.

In dealing with a serious terrorist incident, local, state and federal officials may elect to form a public information policy group in conjunction with JIC operations. The group would consist of senior public affairs and management representatives from the primary response agencies to establish policy/guidance ground rules. Such parameters for media coverage will ensure that information released during the course of the event will not create additional danger or harm to human life or property, or interfere in any way with resolution of the incident.

Rumor control/public inquiry functions may be handled at the JIC, or may be established at satellite locations depending on the demands generated by the event, as well as the facilities and resources available.

Media must be sensitive to the requests of incident managers and show restraint and discretion in reporting the evolving event.

EXTERNAL AFFAIRS/PIO FUNCTIONS - DISASTER RECOVERY PHASE

As the operation phases down and transitions to recovery, FEMA becomes the lead federal agency. The JIC will then come under FEMA's direction. Federal, state and local public information officers will coordinate releases through the FEMA JIC.

This phase includes measures to protect public health and safety, restore essential government services, and provide emergency relief to governments, businesses and individuals affected by the consequences of the terrorist act.

The public information function for disaster recovery would cover a broad range of federal, state, and local response activities, including guidance on protective action measures for the public. Dissemination of information during the Disaster Recovery phase would be conducted by appropriate federal, state and local officials from a Joint Information Center in the impacted area.