

**FEDERAL EMERGENCY MANAGEMENT AGENCY  
FINDING OF NO SIGNIFICANT IMPACT  
EMERGENCY TEMPORARY FACILITY PROJECT  
ST. JOHN'S REGIONAL MEDICAL CENTER,  
JOPLIN, JASPER COUNTY, MISSOURI  
FEMA-1980-DR-MO**

As a result of damages from severe storms and tornadoes on May 22, 2011, the Federal Emergency Management Agency (FEMA) was authorized under a Presidential disaster declaration (FEMA-1980- DR-MO) to provide Federal assistance to designated disaster areas in Missouri. Assistance authorized by the statute is available to individuals, families, state and local governments, and certain nonprofit organizations. The purpose of this project is to assist St. John's in constructing temporary medical facilities so health professionals can continue to provide vital medical and health related services and facilities to the residents of Joplin and the surrounding region and to relieve the burden that the loss of the hospital has placed on the remaining medical facilities in the region.

In order to implement its PA Program in a timely and effective manner, FEMA proposed an expedited process to assess the potential environmental impacts of building emergency temporary facility for a hospital. An Environmental Assessment (EA), Monday July 18, 2011, was prepared pursuant to the National Environmental Policy Act (NEPA), the President's Council on Environmental Quality regulations implementing NEPA (40 CFR Parts 1500-1508), and FEMA regulations for NEPA compliance (44 CFR Part 10). The EA's purpose is to analyze and document the proposed alternative's potential environmental impacts, serve as a vehicle to document compliance with applicable state and federal laws and regulations, and to determine whether to prepare an Environmental Impact Statement (EIS) or a Finding of No Significant Impact (FONSI). The EA is hereby incorporated by reference.

This site is bordered on the north by the existing temporary facilities described above, on the south by 32<sup>nd</sup> Street, to the west by Old 32<sup>nd</sup> Street/South Picher Avenue, and to the east by Jackson Avenue. It is generally due east, across Old 32<sup>nd</sup> St/South Picher Avenue (also known as St. John's Boulevard) from the remaining St. John's infrastructure. The Proposed Action would involve the development of a maximum of 31 acres of the site. Site preparation would require grading to construct building pads, roads, parking lots, helipads, walkways, and all utilities related to the infrastructure of the complex. Utility services including water, sewer, electric, and telephone would be extended to the site from adjacent areas. In addition, stormwater management facilities would be constructed in accordance with local, state and Federal requirements. Best management practices (BMPs) would be implemented to reduce or eliminate runoff impacts during proposed construction activities and to reduce the potential for soil erosion after construction. A safety fence would be installed and maintained around the site perimeter during construction. The facilities would include the development of temporary gravel pads or concrete footings for foundations, gravel and asphalt roadways, parking, walkways waterline installation, phone and cable, electric, and modular components for the structures. The contractor will ensure that the new utility infrastructure is compatible with the capacity needed for the

## FINDING OF NO SIGNIFICANT IMPACT

remainder of the city and/or county. Access to the site from surrounding roads along with internal circulation will also be designed in coordination with applicable city and/or county staff. The estimated footprint sizes for specific features are: buildings/structures-2.81 acres, helipad-0.44 acre, parking-1.98 acre, and roads/walkways-3.21 acres. The existing 6.04 cleared/graded area would be fully utilized, thereby reducing the extent of further clearing that is necessary to construct the facilities.

The public comment period for the Draft EA was from July 13 through July 17, 2011 with notice published in the Joplin Globe, the Jasper County Citizen, copies of the draft EA were also provided at the Joplin City Hall, located at 602 S. Main St. Joplin, MO 64801, Two FEMA Disaster Recovery Center Locations, DRC#6 602 S. Main St. Joplin, MO 64801 and DRC#7 3950 Newman Road Joplin, MO 64801 and on FEMA's web site at <http://www.fema.gov/ehp/docs.shtm>. The Public Notice notified residents of the proposed project, the availability of the Draft EA, and the opportunity to comment.

## FINDINGS

FEMA has made the following determinations from the information contained in the St. John's Regional Medical Center Project EA:

The above described action will not result in any significant adverse impacts related to geology and soils; hydrology and floodplains; wetlands and jurisdictional waters of the U.S.; water quality; air quality; vegetation and wildlife; state and federally listed threatened and endangered species; cultural resources; socioeconomics (including minority and low income populations); safety and security; hazardous materials and toxic wastes; and traffic and transportation. The proposed alternative has been reviewed and, to the best of our knowledge, does not have the potential for significant cumulative effects when combined with past, present, and reasonably foreseeable future actions in accordance with 44 CFR Part 10.8 (d)(3)(x).

The following summarizes what is outlined in the EA's Mitigation Actions section and are the conditions that must be met as part of implementing this proposed action alternative:

1. Use of best management practices (e.g., installation of silt fences and straw bales) will be required to reduce soil erosion and sedimentation. If fill is stored on site, the contractor is required to appropriately cover it to prevent erosion.
2. The construction contractor would be required to apply for and obtain all applicable storm water permits or waiver from the Missouri Department of Natural Resources.
3. In order to convey storm water runoff, the contractor will be required to design drainage features so that flows will not flood site residents or surrounding properties during storm events. The drainage system will be required to meet local and county requirements, including the acquisition of easements if applicable.
4. Area soils would be covered and/or wetted during construction to minimize dust.

5. If fill is stored on site as part of unit installation or removal, the contractor will be required to appropriately cover it.
6. During the site construction and occupancy, rock cover for roads and housing pads would be periodically wetted and/or treated to minimize dust as needed.
7. In accordance with the National Historic Preservation Act, if unanticipated historic or cultural materials are discovered during construction, all construction activities shall immediately cease within 100 feet of the materials until their cultural affiliation and ultimate disposition are determined in consultation with the Missouri State Historic Preservation Office, FEMA Environmental Liaison Officer and other interested parties.
8. If necessary, the following noise reduction measures should be considered: (1) restricting the 24-hour schedule to the first two weeks of construction; (2) using a 7 A.M. to 7 P.M. construction schedule; (3) completing construction closest to adjoining residents first; and (4) completing noisier activities during the day if a 24-hour schedule is used.
9. If any hazardous materials are found between start of construction and final site closure, all hazardous materials shall be remediated, abated, or disposed of as appropriate, and otherwise handled in accordance with applicable local, state, and federal laws and regulations. Alternatively, the site could be abandoned in view of finding another site that better meets the identified project purpose and need.
10. Contractor to provide for 24-hour security services at the Park during construction, if needed.
11. Contractor will coordinate with the City traffic engineer to ensure traffic infrastructure can service the increased traffic volume. The contractor and City will implement traffic control measures, as necessary.
12. To minimize worker and public health and safety risks from project construction and closure, all construction and closure work will be done using qualified personnel trained in the proper use of construction equipment, including all appropriate safety precautions. Additionally, all activities will be conducted in a safe manner in accordance with the standards specified in Occupational Safety and Health Administration (OHSA) regulations and the USACE safety manual.
13. The contractor will post appropriate signage and fencing to minimize potential adverse public safety concerns. Appropriate signage and barriers should be in place prior to construction activities in order to alert pedestrians and motorists of project activities and traffic pattern changes.



Environmental Assessment

# **St. John's Regional Medical Center Temporary Medical Facilities**

FEMA-1980-DR-MO

Joplin, Jasper County Missouri

*July 2011*



# **FEMA**

**U.S. Department of Homeland Security  
Federal Emergency Management Agency, Region VII**  
9221 Ward Parkway,  
Suite 300  
Kansas City, Missouri 64114-3372

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## Acronyms and Abbreviations

|       |   |
|-------|---|
| AMSL  | Above Mean Sea Level                            |
| BMP   | Best Management Practices                       |
| CFR   | Code of Federal Regulations                     |
| DEA   | Draft Environmental Assessment                  |
| DHS   | U.S. Department of Homeland Security            |
| EA    | Environmental Assessment                        |
| EDR   | Environmental Data Resources, Inc.              |
| FEMA  | Federal Emergency Management Agency             |
| FINDS | Facility Index System                           |
| FIRM  | Flood Insurance Rate Map                        |
| FONSI | Finding of No Significant Impact                |
| GIS   | Geographic Information System                   |
| LUST  | Leaking Underground Storage Tank                |
| MDC   | Missouri Department of Conservation             |
| MDNR  | Missouri Department of Natural Resources        |
| NEPA  | National Environmental Policy Act of 1969       |
| NHPA  | National Historic Preservation Act              |
| NPDES | National Pollutant Discharge Elimination System |
| NRCS  | Natural Resource Conservation Service           |
| NRHP  | National Register of Historic Places            |
| NWI   | National Wetland Inventory                      |
| RCRA  | Resource Conservation and Recovery Act          |
| SHPO  | State Historic Preservation Office              |
| SQG   | Small-Quantity Generator                        |
| SWHS  | State Hazardous Waste Site                      |
| TCP   | Traditional Cultural Properties                 |
| UFAS  | Uniform Federal Accessibility Standards         |
| USFS  | U.S. Fish and Wildlife Service                  |
| USGS  | U.S. Geological Survey                          |



## **A. Project Name: St. John's Regional Medical Center Temporary Medical Facilities**

## **B. Environmental Assessment**

This Final Environmental Assessment (EA) documents the results of a study of the proposed action's potential environmental impacts and has been prepared in compliance with the National Environmental Policy Act (NEPA) of 1969; the President's Council on Environmental Quality regulations implementing NEPA (Title 40 of the Code of Federal Regulations [CFR], Part 1500 1508 [49 CFR 1500-15008]); and the Department of Homeland Security's Federal Emergency Management Agency (FEMA) regulations implementing NEPA (44 CFR 10.9). Based on the evaluation described herein, FEMA has concluded that the Proposed Action would not have significant adverse environmental consequences on the quality of the human and natural environment.

## **C. Purpose and Need**

FEMA and the Corps are working with partners at the local and state levels and with other Federal agencies to coordinate the response to the devastating tornado that struck Joplin, Jasper County, Missouri on May 22, 2011. The tornado was a massive EF5 multiple vortex tornado with winds over 200 mph (peaking at 225 to 250 mph). According to the local branch of the American Red Cross, approximately 25% of the City of Joplin was destroyed. The Missouri Emergency Management Agency reported more than 990 injured. As of June 27, the death toll from the tornado was 157. In addition to the tornado deaths, a policeman was struck by lightning and killed while assisting with recovery and cleanup efforts the day after the storm.

On May 23, 2011, the federal disaster declaration EMA-1980-DR-MO, which was signed by President Obama on May 9, 2011, was extended to authorize FEMA to provide federal assistance to the Joplin Tornado Recovery. St. John's Regional Medical Center ("St. John's"), a 367-bed facility serving Joplin and the regional area, was severely damaged by the tornado and may require replacement. One-hundred and eighty three patients were evacuated from the hospital. Five patients were killed along with one visitor who was at the hospital when the tornado struck. Shortly after the tornado, a temporary, 60-bed field hospital was erected using temporary fabric shelters, allowing the hospital to provide some emergency and other medical services to the community. However, an urgent need exists to expedite the construction of temporary medical facilities to provide the necessary level of medical and health care services to the people of Joplin and the surrounding area.

FEMA is authorized to provide disaster assistance funds in accordance with the Robert T. Stafford Disaster Relief and Emergency Assistance Act, 42 USC 5121-5206, as amended (Stafford Act, Public Law 93-288). Assistance authorized by the statute is available to individuals, families, state and local governments, and certain nonprofit organizations. The purpose of this project is to assist St. John's in constructing temporary medical facilities so health professionals can continue to provide vital medical and health related services and facilities to the residents of Joplin and the surrounding region and to relieve the burden that the loss of the hospital has placed on the remaining medical facilities in the region.

## **D. Project Alternatives**

NEPA requires the investigation and evaluation of reasonable project alternatives as part of the project environmental review process. Two alternatives are addressed in this EA: the No Action Alternative 1, where FEMA would not fund the construction of temporary medical facilities and Alternative 2, the Proposed Action, where FEMA would fund the construction of St. John's Regional Medical Center temporary medical facilities in Joplin, Jasper County, Missouri.

### **Alternative 1 – No Action Alternative**

Under the No Action Alternative, FEMA would not fund the Proposed Action. The tornado severely damaged St. John's Regional Medical Center ("St. John's"). Although a second facility, the 193-bed Freeman Hospital, serves local and regional residents, the loss of 367 hospital beds at St. John's has stressed the remaining medical facilities and health care systems, as well as medical professionals and staff, both in Joplin and in surrounding communities such as Carthage and Springfield, Missouri. The no-action alternative would result in the continued stress on health care systems as well as medical professionals and staffing. Citizens from the Joplin and regional area would not receive an adequate level of routine, specialized, or emergency health care services. In addition there would be an economic stress on the area from the loss of employment opportunities at the facility. All of this would result in further health, economic and personal hardships for residents of the area, and would further strain the city and county's social and economic infrastructure.

### **Alternative 2 - Temporary Medical Facilities on the 31-Acre Site (Proposed Action)**

In considering the "range of reasonable alternatives," the hospital considered their immediate options, including use of the existing, damaged, facilities. In the aftermath of the destruction, it was necessary the hospital set up a field hospital on an outlying portion of the facility, opposite S. Pitcher Avenue. Consideration was given to using more of the facility, however, due to the potential for biohazards, the widespread damage, and the need for demolition access to the existing hospital site and associated infrastructure, and the need to use the existing parking lots for vehicles, this alternative was dismissed. The region lost a 367-bed facility with a full range of services and timing became a crucial factor. The Proposed Action provides a more complete temporary medical facility for people within the local and regional communities. Under this alternative the temporary medical facilities would be located in the same general area as the existing field hospital and the damaged St. John's. The temporary medical facilities proposed site ("site") is 31 acres in size and would provide ample room for the facilities necessary to provide an increased level of medical services and health care to people and families within the local and regional communities, until a permanent hospital replacement is completed.

## **E. Project Location**

This site is bordered on the north by the existing temporary facilities described above, on the south by 32nd Street, to the west by Old 32nd Street/South Picher Avenue, and to the east by Jackson Avenue. It is generally due east, across Old 32nd St/South Picher Avenue (also known as St. John's Boulevard) from the remaining St. John's infrastructure (Attachment 1, Figure 1, Vicinity Map).

The proposed site is located in Section 26, Township 27 north, Range 33 west, Jasper County, Missouri, Joplin West Quad. (Latitude 37.032276 N and Longitude 94.313722W).

## **F. Site Description**

The site lies at elevations from approximately 970 feet to 1,030 feet AMSL and consists of an existing cleared and graded area of approximately 6.04 acres and approximately 24.96 acres of forested area. Approximately 25% of the cleared area is topped with gravel. The site is owned by Mercy Health Ministries, which oversees the St. John's network of healthcare facilities. The forested area consists of a variety of hardwood species and is dominated by oak trees which generally range in sizes up to 3-foot in diameter. Approximately 10 to 20% of the larger trees were damaged by the tornado and were either snapped along the trunk or toppled with the roots intact. A power line traverses the property at the south end of the review area. A stream and mapped flood plain exist outside of the southeast portion of the site (Attachment 2, Figure 2, Joplin Missouri-Proposed Temporary Hospital Site).

## **G. Project Description**

The Proposed Action would involve the development of a maximum of 31 acres of the site. Site preparation would require grading to construct building pads, roads, parking lots, helipads, walkways, and all utilities related to the infrastructure of the complex. Utility services including water, sewer, electric, and telephone would be extended to the site from adjacent areas. In addition, stormwater management facilities would be constructed in accordance with local, state and Federal requirements. Best management practices (BMPs) would be implemented to reduce or eliminate runoff impacts during proposed construction activities and to reduce the potential for soil erosion after construction. A safety fence would be installed and maintained around the site perimeter during construction. The facilities would include the development of temporary gravel pads or concrete footings for foundations, gravel and asphalt roadways, parking, walkways waterline installation, phone and cable, electric, and modular components for the structures. The contractor will ensure that the new utility infrastructure is compatible with the capacity needed for the remainder of the city and/or county. Access to the site from surrounding roads along with internal circulation will also be designed in coordination with applicable city and/or county staff. The estimated footprint sizes for specific features are: buildings/structures-2.81 acres, helipad-0.44 acre, parking-1.98 acre, and roads/walkways-3.21 acres. The existing 6.04 cleared/graded area would be fully utilized, thereby reducing the extent of further clearing that is necessary to construct the facilities. The attached Figure 2 depicts the estimated footprint of the project.

## **H. Sites Considered and Dismissed**

Factors considered in choosing a site include: site topography; ownership of the property; past land use, prior development planning; access to existing utilities; and engineering feasibility. In the aftermath of the destruction, it was necessary the hospital set up a field hospital on an outlying portion of the facility, opposite S. Pitcher Avenue from the damage. Consideration was given to using more of the damaged facility; however, due to the potential for biohazards, the widespread damage, and the need for demolition access to the existing hospital site and associated infrastructure, and the need to use the existing parking lots for vehicles, this alternative was dismissed. Timing became a crucial factor in the hospital's consideration of alternatives. The

region lost a 367-bed facility with a full range of services which has left a large void in vital medical services for the region. Due to the availability of the proposed site, current ownership by the hospital, location, access to utilities, as well as the urgency for the facilities, the proposed site was chosen.

## **I. Affected Environment and Environmental Consequences**

In order to meet the proposed purpose and need of timely delivery of emergency temporary medical facilities, an expedited environmental review process was conducted to analyze all natural and human environmental issues associated with the proposed site. The environmental review process included field reconnaissance at the site, background research, and expedited agency consultation. The field reconnaissance was conducted on June 28 and July 5, 2011. Background research consisted of a review of census statistics, wetlands maps, FEMA floodplain maps, hazardous materials databases, archaeological and historic structures databases, threatened and endangered species information, soil surveys, and other available information. Expedited agency consultation through verbal and written communications was conducted with the Environmental Protection Agency (EPA), Natural Resources Conservation Service (NRCS), U.S. Fish and Wildlife Service (USFWS), U.S. Army Corps of Engineers (USACE), Missouri Department of Conservation (MDC), Missouri Department of Natural Resources (MDNR) and Missouri State Historic Preservation Office (SHPO). No significant concerns were expressed by these agencies. The following table (Table 1) summarizes the results of the environmental review process for the various resource areas (e.g., water quality, air quality, etc.). Definitions of the impact intensity are described below:

***Negligible:*** The resource area would not be affected, or changes would be either non-detectable or if detected, would have effects that would be slight and local. Impacts would be well below regulatory standards, as applicable.

***Minor:*** Changes to the resource would be measurable, although the changes would be small and localized. Impacts would be within or below regulatory standards, as applicable. Mitigation measures would negate any potential adverse effects.

***Moderate:*** Changes to the resource would be measurable and have both localized and regional scale impacts. Impacts would be within or below regulatory standards, but historical conditions are being altered on a short-term basis. Mitigation measures would be necessary and would reduce any potential adverse effects.

***Major:*** Changes would be readily measurable and have substantial consequences on a local and regional level. Impacts would exceed regulatory standards. Mitigation measures to offset the adverse effects would be required to reduce impacts, though long-term changes to the resource would be expected.

**Table 1: Affected Environment and Environmental Consequences**

| Affected Environment/Resource Area              | Impacts    | Mitigation  | Agency Coordination/Permits  | Comments   |
|---|------------|---|--|--|
| Geology & Soils                                 | Negligible | BMPs  | N/A  | The implementation of construction BMPs will reduce sedimentation.   |
| Hydrology & Floodplains (Executive Order 11988) | Negligible | None  | N/A  | Site is outside designated FEMA 100 year floodplain according to FEMA floodplain maps.   |
| Wetlands (Executive Order 11990)                | Negligible | None  | N/A  | The site does not contain jurisdictional wetlands.   |
| Water Quality                                   | Minor      | Implement construction BMPs. Install silt fences/straw bales to reduce soil erosion and sedimentation. Construction contractor to cover any fill stored on site and implement requirements of NPDES stormwater discharge permit, if required. | NPDES stormwater permit or waiver to be obtained by construction contractor. | Stormwater plans/ drainage system will be required to meet State and local and local requirements.   |
| Air Quality                                     | Minor      | Temporary roads should be constructed of permeable asphalt- like millings, gravel, or similar material to reduce airborne particles. Periodic wetting during construction and home removal would reduce fugitive dust.                        | N/A  | County air shed is in attainment for criteria pollutants per the Clean Air Act.  |
| Vegetation & Wildlife                           | Minor      | None  | N/A  | Extent of vegetation removal would be minimized to accommodate only what is necessary for facility. Disturbed areas to be stabilized and seeded when construction is complete. |

| <b>Affected Environment/Resource Area</b>                           | <b>Impacts</b> | <b>Mitigation</b>   | <b>Agency Coordination/Permits</b>                            | <b>Comments</b>  |
|---|----------------|---|---|--|
| Threatened & Endangered (Endangered Species Act Section 7)          | Negligible     | None  | USFWS (6/30/11) and MDC (6/29/11) determinations.             | No State or Federally Listed Endangered Species at this site. No Effect.       |
| Cultural Resources (National Historic preservation Act Section 106) | Negligible     | If unanticipated historic or cultural materials are discovered during construction, construction shall immediately cease within 100 feet of the materials until their cultural affiliation and ultimate disposition are determined in consultation with the Missouri SHPO, FEMA Environmental Liaison Officer and other interested parties. | SHPO determination (6/29/11).                                 | No effect  |
| Socioeconomic/Recreation  | Negligible     | None  | N/A   | N/A  |
| Environmental Justice   | Negligible     | None  | N/A   | N/A  |
| Noise   | Minor          | If necessary, noise reduction measures associated with construction would be instituted including: 1) restricting the 24-hour construction schedule; 2) using a 7 a.m. to 7 p.m. construction schedule; and/or 3) completing noisier activities during the day if using a 24-hour schedule.   | Contractor shall coordinate with the designated hospital POC. | Noise impacts would mostly affect the temporary field hospital. See Section J. |

| Affected Environment/Resource Area | Impacts    | Mitigation  | Agency Coordination/Permits   | Comments   |
|------------------------------------|------------|---|---|--|
| Safety & Security                  | Minor      | Implement BMPs for construction. Appropriate construction fencing and signage. Monitoring of lead levels during ground disturbances and remediation in accordance with EPA standards/local requirements. Surface exploration of mine features in construction footprint and evaluation for further mitigation measures. | The contractor will coordinate with city, county and state governments to obtain required permits. MDNR email report (7/6/2011) | Temporary facilities will be installed per manufacturer's requirements; up to-date safety procedures provided in FEMA technical papers; and federal state and local codes and ordinances including precautions in installing anchors to maximize safety during severe weather and storm shelters will be installed. All activities will be conducted in a safe manner in accordance with the standards specified in OSHA regulations. See Section J. |
| Hazardous Materials                | Negligible | If hazardous materials are found between start of construction and final site closure, the materials shall be remediated, abated, or disposed of as appropriate and handled in accordance with applicable local, state, and federal laws and regulations.   | MDNR (6/30/2011)<br>No sites.   | No potential environmental hazards were observed during field reconnaissance on June 28, 2011.   |

| Affected Environment/Resource Area | Impacts | Mitigation  | Agency Coordination/Permits   | Comments       |
|------------------------------------|---------|---|---|----------------|
| Traffic & Transportation           | Minor   | The construction contractor would need to work with city and county staff to assure that the local level of service on the roadway remains adequate. The contractor should design the roadways for multiple ingress and egress to site. The road and lane widths should be designed to allow ample room for emergency vehicles to pass. The roadways should be graveled and compacted to facilitate maintenance and keep, local environment, traffic volume, and usage. | The construction contractor will coordinate with hospital, city and county staff. | See Section J. |



## **J. Potential Impact Analysis**

### **Geology and Soils**

The Proposed Action's effect on geology and soils would be negligible. Jasper County lies on the northwest portion of the Ozark Plateau. The Ozark Plateau is an elliptical uplifted geologic dome. Bedrock units in the Ozark Plateau have been tilted and faulted by multiple cycles of uplift and erosion since the Precambrian era (before 542 million years ago). Jasper County, Missouri is part of the Tri-State Mining District, a historic lead and zinc mining area that covers over 2,500 square miles of Missouri, Kansas, and Oklahoma. The elevations within the proposed site range from 970 to 1,030 feet AMSL, with drainage generally flowing from the north to the south. The uppermost bedrock on the site is the Mississippian-age Warsaw Limestone with about 10 to 15 feet of very cherty residuum overlying it.

Information from the U.S. Department of Agriculture Natural Resources Conservation Service (NRCS) shows that soils at his site are predominately Goss extremely gravelly silt loam, 15 to 35 percent slopes, which are identified as well drained; Reuter extremely gravelly silt loam, 8 to 15 percent slopes, which are identified as somewhat excessively drained; and Reuter very gravelly silt loam, 3 to 8 percent slopes, which are identified as somewhat excessively drained. In a letter dated July 6, 2011, the Missouri office of the NRCS stated "Since the entire project area is located within the city limits of Joplin, Missouri, no prime farmland or farmland of statewide importance will be converted, Farmland Protection and Policy Act does not apply." The No Action Alternative would entail no construction or preparation of sites for temporary medical facilities; therefore, there would be no impacts to geology and soils.

### **Mitigation Measures**

The existing geology, topography, and soils would not preclude the use of the site for temporary medical facilities. There are negligible impacts to geologic features and no more than minimal temporary effects to the soils. The contractor would be required to identify and implement specific BMPs (e.g., silt fences, hay bales, etc.) to reduce or eliminate runoff impacts during proposed construction activities and to reduce the potential for soil erosion after construction.

### **Hydrology and Floodplains**

A review of the Proposed Action found that the effect it would have on hydrology and floodplains would be negligible. There are no blue line streams, as shown on the U.S.G.S. Quad Map (Joplin West) located on the proposed site. A field inspection of the site conducted on June 28, 2011, revealed that there are no streams or discernable drainages within the boundaries of the site. Some unnamed streams exist to the east and west of the site. These streams flow south and are tributaries to Shoal Creek, the closest named stream which is located approximately 1.2 miles to the south. The north side of the property is noticeably higher than the southern portion. As a result, drainage on the site travels from north to south. The FEMA Floodplain Maps were reviewed and the proposed site is located outside all designated flood plains (Attachments, Figure 2, Joplin Missouri-Potential Hospital Site). A 100-year floodplain exists outside of the southeast side of the site. In light of the elevation changes and a review of existing information on hydrology and the existence of floodplains, no reasons exist to preclude the use of the site for temporary medical

facilities. The No Action Alternative would entail no construction or preparation of sites for temporary medical facilities; therefore, there would be no hydrology or floodplain impacts.

### **Mitigation Measures**

The contractor would be required to identify and implement specific BMPs (e.g., silt fences, hay bales, etc.) to reduce or eliminate runoff impacts during proposed construction activities and to reduce the potential for soil erosion after construction. A vegetated upland buffer, to the maximum extent practicable, should be left in place on the site between the project and stream/floodplain areas.

### **Wetlands**

Wetlands consist of lands where saturation with water is the dominant factor determining the nature of soil development and the types of plant and animal inhabitants. For regulatory purposes under Section 404 of the Clean Water Act, the term wetland is defined as “those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas.” Wetlands are valuable biological resources that perform many functions, including groundwater recharge, flood flow attenuation, erosion control, and water quality improvement. Wetlands also provide habitat for many plants and animals, including threatened and endangered species. Executive Order 11990 “Protection of Wetlands” directs all federal agencies to “minimize the destruction, loss or degradation of wetlands.” A review of the U.S. Fish and Wildlife Service (USFWS) National Wetland Inventory Maps (NWI) did not identify any wetlands within the proposed site (Attachments, Figure 1, Vicinity Map). Soils at this site are mapped by the Natural Resources Conservation Service (NRCS) as somewhat excessively drained or well drained, indicating a lack of hydrology near the soil surface (Attachments, Figure1, Vicinity Map). A field reconnaissance of the site conducted on June 28, 2011, resulted in no observations of wetlands. There are also no stream swales or drainages of floodplains on the subject property. The FEMA has determined that the project’s effect on wetlands and waters of the United States would be negligible. The No Action Alternative would entail no construction or preparation of sites for temporary medical facilities; therefore, there would be no impacts to any jurisdictional wetlands.

### **Mitigation Measures**

No wetlands exist on the site; therefore mitigation measures are not required.

### **Water Quality**

There are no streams located on the subject property. The general drainage on this property appears to be from north to south. The largest named stream near the site is Shoal Creek, located about 1.2 miles to the south. Streams exist closer to the site, but due to their sizes and the fact that they lie outside of the site, they would have no hydrologic influence on the proposed site. A General National Pollutant Discharge Elimination System (NPDES) Permit (ground disturbance permit, or a waiver of the permit, would be required to be obtained from the Missouri Department of Natural Resources before any work could begin. The General NPDES Permit is obtained by developing a Stormwater Pollution Prevention Plan that implements a series of BMPs (e.g., silt fences, hay

bales, etc.). The Contractor must implement specific BMPs to reduce or eliminate runoff impacts during proposed construction activities of the Proposed Action and to reduce the potential for soil erosion after construction, regardless of whether a NPDES Permit or a waiver from the permit requirement is secured. No work would begin until the NPDES Permit or a waiver is issued by the MDNR. The No Action Alternative would entail no construction or preparation of sites for temporary medical facilities; therefore, there would be no impacts to water quality.

### **Mitigation Measures**

The contractor would be required to identify and implement specific BMPs (e.g., silt fences, hay bales, etc.) to reduce or eliminate runoff impacts during proposed construction activities and to reduce the potential for soil erosion after construction. In order to convey stormwater runoff, the contractor will be required to design drainage features such that flows would be appropriately directed during storm events, in accordance with State and local requirements.

### **Air Quality**

Within the proposed temporary facility area, air quality programs are coordinated with the MDNR and Region VII of the USEPA. According to the EPA Green Book, Nonattainment Status for Each County (see Attachment 5, Figure 5 EPA Air Quality Information in Attachments section) by Year for Missouri ([http://www.epa.gov/airquality/greenbk/anayo\\_mo.html](http://www.epa.gov/airquality/greenbk/anayo_mo.html)) Jasper County is considered an attainment area for all criteria air pollutants. The Proposed Action would include activities that would produce a minor, temporary, and localized impact from vehicle emissions and dust particles. Tractor-trailers would transport the temporary facilities to the site. Construction equipment would be required for site preparation. Equipment use would temporarily increase emissions; however, no long-term air quality impacts are anticipated. It is not anticipated that Federal or state air quality attainment levels would not be exceeded. Construction activity associated with the Proposed Action would produce pollutant emissions. Heavy equipment would produce small amounts of hydrocarbons and exhaust fumes. It would be expected that some air pollutants would increase in the project areas; however, the concentrations of these pollutants would not cause the region to reach nonattainment status. The construction contractor would be required to maintain the vehicles on the sites in good working order to minimize pollutant emissions. Fugitive dust would also result from proposed construction activities. The contractor would be required to address dust suppression activities. Adverse impacts to air quality resulting from the proposed activity would be short term and temporary during construction only. The No Action Alternative would result in fewer emissions overall and less impact to air quality.

### **Mitigation Measures**

Temporary roads on the site during construction should be constructed of permeable asphalt like millings, gravel, or similar material to reduce airborne particles. Periodic wetting during construction would reduce fugitive dust. The contractor shall appropriately cover any fill stored on site during unit installation or removal. These measures would help reduce air quality impacts on asthmatics, seniors, and other sensitive residents.

## **Vegetation and Wildlife**

The proposed site consists of an existing cleared and graded area of approximately 6.04 acres with approximately 24.96 acres of forest that would be cleared. The proposed Action Area is located within the city limits of Joplin and is surrounded by urban features including commercial and medical facilities, roads, and residential areas, with surrounding or nearby utilities. Site preparation for construction of the temporary facilities would require clearing and grading the majority of the site. Maximum clearing limits would encompass 24.96 acres of forest, consisting of mixed hardwoods including oak, elm, sycamore, black cherry, walnut, hickory, sassafras, and other species, as well as shrubs and herbaceous vegetation, providing habitat for both terrestrial and avian wildlife. The presence of deer was noted during a site visit to the property on June 28, 2011. Overall, habitat quality in the immediate project area is high related to plant species composition. However, the site is isolated from other tracts of forest and lacks a wildlife corridor to connect the site to other habitats, thus limiting the sites suitability as an area of high value to terrestrial wildlife, such as deer, coyotes, raccoons, opossums, and other species. The Proposed Action would have minimal impact on wildlife populations and overall, minor impacts to vegetation. The No Action Alternative would entail no construction or preparation of sites for temporary medical facilities; therefore, there would be no impacts to either vegetation or wildlife.

## **Mitigation Measures**

The project would be required to minimize, to the maximum extent practicable, the extent of forest clearing by using only those areas necessary to construct the temporary facilities. If practicable, select trees and vegetation would be retained if possible between entranceways and temporary structures to minimize vegetative removal. All disturbed areas should be stabilized during and immediately after construction and should be seeded and/or replanted with shrubs and trees.

## **Threatened and Endangered Species**

The project's effect on threatened and endangered species has been determined to be negligible. Both the USFWS and MDC were contacted by email and requested to evaluate the site for potential use by Federally listed or state listed threatened and/or endangered species with potential to occur in Jasper County. The USFWS responded on June 30, 2011, by stating that "The Federally protected Indiana bat may occur in southwest Missouri, including Jasper and Newton Counties but known records are from 60 miles away. Normally, we would recommend that a non-forested area be chosen for construction activities. But we understand the urgency of the situation in Joplin, so we do not have any further comments on the project under Section 7 of the Endangered Species Act" (Attachment 3, Figure 3, USFWS Comments). The MDC provided a response on June 29, 2011, stating that "there are no state endangered species or species or natural communities of conservation concern known to occur on the area. Based on the information in the database and the description of the area, it is unlikely there will be impacts to state-listed species" (Attachment 4, Figure 4, MDC Determination of No Effect). The No Action Alternative would entail no construction or preparation of sites for temporary medical facilities; therefore, there would be no impacts to threatened or endangered species.

## **Mitigation Measures**

There are negligible impacts to threatened and endangered species; therefore mitigation measures are not required.

## **Cultural Resources**

Historic and archaeological resources are protected by a number of statutes and regulations at all levels of government and must be taken into consideration during the NEPA process. Prior to the implementation of a Proposed Action, potential impacts to historic and archaeological resources must be reviewed. Section 106 of the National Historic Preservation Act (NHPA) requires federal agencies to consider the effects of Proposed Actions on historic properties.

Historic properties must also be given consideration under NEPA, and Section 106 encourages maximum cooperation with NEPA. The National Register of Historic Places (NRHP) is a federally maintained list of districts, sites, buildings, structures, objects, and landscapes significant in American history, prehistory, architecture, archaeology, engineering, and culture. Archaeological sites are places where past peoples left physical evidence of their occupation. Sites may include ruins and foundations of historic-era buildings and structures. Native American cultural resources may include human skeletal remains, funerary items, sacred items, and objects of cultural patrimony. Historic properties can also include traditional cultural properties (TCPs). The site of the Proposed Action is located in the City of Joplin, Jasper County, Missouri, south of 28th Street between Pitcher Ave, the eastern border and South Jackson Ave, the western border. The sites southern limit is 32nd Street. Coordination was initiated with the Missouri State Historic Preservation Office (SHPO) on June 29, 2011. The Missouri SHPO issued an email dated June 29, 2011, that provided written documentation that there are no historic or cultural resources sites within the temporary hospital facility site. The Missouri SHPO's response provides a determination that the Proposed Action will have No Effect on historic properties (Attachment 5, Figure 5, SHPO Determination of No Effect). The No Action Alternative would entail no construction or preparation of sites for temporary medical facilities; therefore, there would be no impact to any known properties listed; on or eligible properties for listing on the NRHP.

## **Mitigation Measures**

There are no historic or archaeological issues associated with the Proposed Action, therefore mitigation measures are not required. In accordance with the NHPA, if unanticipated historic or cultural materials are discovered during construction, all construction activities shall immediately cease within 100 feet of the materials until their cultural affiliation and ultimate disposition are determined in consultation with the Missouri SHPO, FEMA Environmental Liaison Officer and other interested parties.

## **Socioeconomic/Recreation**

The Proposed Action is located in the southwestern corner of Missouri, in the City of Joplin, Jasper County. Based on the U.S. Census 2010 data, there were 114,756 people, 43,625 households, and 28,982 families residing in the county. Prior to the storms, the population density was 179 persons per square mile. The racial makeup of the county was 92.1 percent White, 1.7 percent Black or African American, 1.3 percent Native American, 0.9 percent Asian, 1.7 percent from other races,

and 2.3 percent from two or more races. Hispanic or Latino, of any race, comprised 3.2 percent of the population. There were 28,982 households, out of which 32.4 percent had children under the age of 18 living with them, 49.5 percent were married couples living together, 13.0 percent had a female householder with no husband present, and 33.6 percent were non-families. Of the households, 27.3 percent were made up of individuals and 11.0 percent had someone living alone who was 65 years of age or older. The average household size was 2.57 and the average family size was 3.13. The median age was 34.4 years. The median income for a household in the county was \$37,294, and the median income for a family was \$43,710. The per capita income for the county was \$19,513. About 14.6 percent of families and 18.4 percent of the population were below the poverty line, including 25.1 percent of those under age 18 and 10.2 percent of those aged 65 or older. The labor force in Jasper County totaled approximately 57,069 in 2010, which represents a decline of 6.2 percent from 2005.

Industries providing employment are:

- Management, professional, and related occupations (26.1 percent).
- Sales and office occupations (25.7 percent)
- Production, transportation, and material moving occupations (19.3 percent)

The Jasper County unemployment rate in 2010 was 8.0 percent. In 2010, the types of workers were:

- Private wage or salary: 83.4 percent
- Government: 8.9 percent
- Self-employed, not incorporated: 7.7 percent
- Unpaid family work: 0.1 percent

The Proposed Action would result in significant social and economic improvements. The proposed action would have a positive impact on public health and safety, community cohesion, and employment in the area. The negative impacts from the loss of the St. Johns, a critical medical facility, would be significantly lessened by the construction of the planned temporary medical services. During site development, staging, and placement of the modular medical facilities, short-term negative impacts would likely occur such as an increase in noise levels, an increase air emissions and an increase traffic volume. None of these are expected to be significant. Additionally, it is likely that rebuilding of the surrounding devastated residential and commercial properties will be concurrent with hospital activity and impacts due to the construction of the temporary medical facilities will comprise only a fraction of the expected activities. Safety concerns related to potential increases in traffic volume can be attenuated through the appropriate placement of construction and safety signage.

These effects would be short-lived and would terminate when site development was complete. The No Action Alternative would entail no construction or preparation of the site for the temporary hospital facilities. The residents and the City of Joplin would not benefit from the replacement facilities and alternate facilities would face overcrowding.

## **Mitigation Measures**

There are negligible socioeconomic impacts, therefore mitigation measures are not required. The proposed action would result in enhanced socioeconomic conditions.

## **Environmental Justice**

Executive Order 12898, Environmental Justice, requires each federal agency to identify and address, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income households in the United States. The Proposed Action would not have disproportionately high and adverse impacts on minority or low-income populations. The level of commitment is proportional to the level of need of the affected community, regardless of socioeconomic status. The No Action Alternative would entail no construction or preparation of sites for temporary medical facilities; therefore, there would be no impacts to minority or low-income populations.

## **Mitigation Measures**

There are no impacts to minority or low-income populations due to the Proposed Action, therefore mitigation measures are not required.

## **Noise**

Noise is defined as “sound undesirable because it is intense and/or loud enough to damage hearing, interferes with speech communication and sleep, or is annoying. Sound varies simultaneously in level (or loudness) and frequency content (pitch), as well as in time of occurrence and duration. The fundamental measure of sound level is expressed in unit of decibels (dB)) using a logarithmic scale.

It is the policy of Federal agencies to assess long-term, cumulative exposure to environmental noise in terms of day-night average sound level (DNL). The Federal Interagency Committee on Urban Noise has developed land use compatibility guidelines for noise. DNL values of 65 dBA and less are normally compatible with residential land uses.

Potential noise impacts associated with construction of the Proposed Action will be reduced to the maximum extent possible. Once the temporary medical facilities are established, some additional noise would be generated from the vehicles and activities of people working at or coming to the hospital. While noise will continue to exist, noise levels would not be expected to result in any significant long-term adverse impacts to residents who redevelop their homes in the adjacent areas. The No Action Alternative would entail no construction or preparation of the site therefore, there would be no noise impacts.

## **Mitigation Measures**

If necessary, noise reduction measures would be instituted. These measures include: 1) restricting the 24-hour construction schedule 2) using a 7 a.m. to 7 p.m. construction schedule 3) completing construction closest to potential sensitive receptor first; and/or 4) completing noisier activities during the day if using a 24-hour schedule.

## **Safety and Security**

Safety and security issues analyzed as part of the Proposed Action include the health and safety of the individuals working on site development activities, transporting hospital units to the site, and the well-being of the people living in or adjacent to the site. For implementation of the Proposed Action, the contractor's construction engineer will identify and rectify potential safety hazards prior to and during site staging and construction activities.

Safety during construction is a high priority for both the personnel constructing the sites, and residents associated with the Proposed Action. An on-site review was conducted by an MDNR geologist to evaluate the site's potential to harbor hazardous conditions associated with historical mining operations (Attachment 6, Figure 6, MDNR Geological Survey Program Report). The review included mining features that had been previously located, and where historical mapping depicted features associated with mines and/or mine shafts. His post-visit observations, reported by the Missouri Geological Survey Program office, concluded "The operations observed were primarily small depressions with adjoining mounds of chat. Mr. Pierce reported that none of the operations within the footprint showed evidence of being a vertical shaft; however, three of the depressions contained concrete debris and were littered with trash. The concrete may be related to mining; however, it is also possible that it was dumped at a later date." Except for two locations, where mine features consisting of depressions existed, the remaining eight mine feature sites are located outside of the construction footprint for the project (Attachment 7, Figure 7, Joplin Missouri-Proposed Temporary Hospital Site-Mine Features-EPA Sample Locations).

Construction is anticipated to be performed in phases to better manage safety considerations. First aid and other medical services would be readily available throughout the duration of site development. To assure safety, the contractor will develop and obtain approvals of a construction management plan, a quality plan, an accident prevention plan, and an environmental protection plan. The construction management plan should include steps to ensure that areas where grading or construction would occur in the vicinity of mine features are investigated prior to performing work. Chain-link fences will be provided for site security and safety. The site for the Proposed Action will be designed to meet the guidelines established by the Uniform Federal Accessibility Standards (UFAS) standards including the required number of UFAS compliant units. The modular hospital units will be installed to comply with the appropriate manufacturer's requirements, the most up-to-date safety procedures, federal, state, and local codes and ordinances, including safety precautions in installing anchors that will maximize safety and reduce risks during severe weather events. Emergency shelters would be included to accommodate the hospital patients, staff, and others, including individuals with limited mobility and disability.

Fire and police protection would be provided by the City of Joplin and/or Jasper County. In addition, St. John's employs its own security force to monitor their facilities and activities. Adverse impacts resulting from the safety and security issues associated with this project would be minor. The No Action Alternative would entail no construction or preparation of the site for temporary medical facilities; therefore, there would be no safety or security impacts.



## **Mitigation Measures**

Safety and security mitigation measures would include the use of BMPs for construction and the installation/implementation of approved safety and management plans, phased construction, UFAS considerations, and appropriate signage and fencing. The contractor will post appropriate signage and fencing to minimize potential adverse public safety concerns. Appropriate signage and barriers should be in place prior to construction activities in order to alert pedestrians and motorists of project activities and traffic pattern changes. The contractor will also place fencing around the site perimeter to protect residents from vehicular traffic on surrounding roads and will provide 24-hour security services at the site during construction, if needed. To minimize worker and public health and safety risks from project construction and closure, all construction and closure work will be done using qualified personnel trained in the proper use of construction equipment, including all appropriate safety precautions. Additionally, all activities will be conducted in a safe manner in accordance with the standards specified in Occupation Safety and Health Administration (OSHA) regulations.

Areas where grading or construction would occur in the vicinity of mine features should be investigated prior to performing work to ensure that no underground hazards exist. These areas should be located, marked, and evaluated prior to construction by a person qualified to perform such work and to make recommendations to mitigate unforeseen conditions.

## **Hazardous Materials and Toxic Wastes**

A review of potential hazardous and toxic materials associated with the site and surrounding areas was conducted. Information was gathered based on records and observations made of the site during field reconnaissance surveys on June 28 and July 5. MDNR staff provided written documentation from Federal and State resources on hazardous and toxic wastes, including superfund sites, underground storage tanks, hazardous waste or resource recovery facilities, brownfields and voluntary clean-up sites. Based upon the written documentation it was concluded that no hazardous sites exist in the vicinity of the proposed project (Attachment 8, Figure 8, MDNR Hazardous Waste Site Maps). On-site evaluations for lead contamination were conducted by a representative from the EPA. The site was evaluated using visual observations and sampling with a Portable X-Ray Fluorescence (XRF) instrument. Visual observations search for a lack of vegetation which, in known mining areas is indicative of elevated levels of mine waste, including lead, zinc, and cadmium. Observance of mine waste or “chat” is also indicative of elevated levels of mine waste. Visual observations, based on site reconnaissance and data from the MDNR’s Inventory of Mines, Occurrences and Prospects database and repository mapping, revealed surface features associated with mining at several locations on the site.

Elevated readings of lead above remediation criteria were measured at some of the locations associated with these features, primarily along the southern perimeter of the site (Attachment 7, Figure 7, Joplin Missouri-Proposed Temporary Hospital Site-Mine Features-EPA Sample Locations and Attachment 9, Figure 9, EPA Site Review). The sites with elevated readings (sites 8, 9, and 10) are not within the construction footprint. Although the data collected indicates elevated readings in select areas of the site, the process of clearing/grading of the site may reveal other areas with elevated levels of lead. The EPA recommends that disturbed areas be placed into a “remediated” status during construction activities. The No Action Alternative would entail no

construction or preparation of sites for temporary medical facilities. No hazardous materials were observed at the site, therefore there would be no impacts from hazardous materials.

### **Mitigation Measures**

The process of clearing and grading the site may reveal earthen materials containing elevated levels of lead. Therefore, as recommended by the EPA, these areas should be placed into a “remediated status” during construction activities and should be evaluated after clearing/ground disturbance to establish remediation needs. Areas with averages above 400 parts per million (ppm) of lead should be covered in accordance with Joplin County Health Department/EPA guidelines. Other hazardous materials were not observed at the site or revealed through a thorough evaluation of available databases and other information. However, if any are found between start of construction and final site closure, all hazardous materials shall be remediated, abated, or disposed of as appropriate, and otherwise handled in accordance with applicable local, state, and federal laws and regulations. Alternatively, the site could be abandoned in view of finding another site that better meets the identified project purpose and need.

### **Traffic and Transportation**

Large vehicle traffic within the general project area would increase due to the ingress and egress of construction equipment. There would also be an increase in traffic of passenger vehicles related to construction work schedules. However, these traffic impacts would be limited to the duration of construction. After the hospital is established there will likely be a permanent increase in local passenger traffic around the project due to hospital associated business. The No Action Alternative would entail no construction or preparation of the temporary hospital site therefore, there would be no impacts to traffic and transportation.

### **Mitigation Measures**

Due to the increased traffic volume associated with the construction equipment and worker vehicles, the contractor should coordinate with the City Public Works Department to assure that the local level of service on the roadway remains adequate. The contractor should design the roadways to allow multiple ingress and egress to site. The roads and lane widths should be designed to allow sufficient room for fire and emergency apparatus to pass as defined by local codes. Roadways should comply with local codes and at a minimum be graveled and compacted to facilitate periodic maintenance and allow the anticipated traffic volume and usage.

## **K. Cumulative Impacts**

"Cumulative impact" is the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time (CEQ regulations 40 CFR 1507).

This section analyzes cumulative impacts, including direct and indirect effects that may be associated with the Proposed Action and the No Action alternative. The analysis involves

identifying resources with the potential to experience cumulative impacts, and establishing a geographic scope and time frame.

The affected environment includes those human and natural environmental resources subject to a potential impact analysis in Section J. In reviewing these, socioeconomic resources were identified as having the most potential to experience significant cumulative effects. The geographic scope includes Joplin and surrounding communities that were previously serviced by St. John's medical services. The time frame is projected at three to five years from May 22, 2011, which is an estimate of when a replacement, permanent hospital may be constructed.

Critical Public Facilities (CPF) may include local government offices, schools, fire, police and rescue stations, and other facilities as designated by FEMA. Section 403 of the Stafford Act authorizes FEMA to provide Federal assistance to meet immediate threats to life and property resulting from a major disaster. Specifically, Section 403 (a) (3)(D) allows for the provision of temporary facilities for schools and other essential community services, when it is related to saving lives and protecting and preserving property or public health and safety. The period of time for which temporary facility assistance may be provided is usually six months, based on the regulatory time limitation for the completion of emergency work (44 CFR § 206.204 (c)(1)). However, the time period for the completion of eligible permanent work may be longer and, when appropriate, the time limitations for temporary facility assistance are established according to the particular requirements of the project.

Timing is a crucial factor in the construction of temporary CPF's, due to the nature and importance of their services to the community. Following is a list of Joplin CPF's that require the use of temporary facilities, in the aftermath of the May 22, 2011 tornado (Attachments, Figure 10, Critical Public Facilities Map).

**Schools:** Eight schools will require temporary facilities consisting of the installation of temporary Modular/Portable Building Units and/or Storm Shelters on school grounds or other facilities that were not affected by the Tornado. As of July 15, 2011, construction for temporary facilities had commenced at most of these locations. Currently, long range plans for the Joplin School District estimate a 3 to 5 year time-frame for the permanent repair/replacement of the damaged schools at their existing sites. Temporary facilities for all of the schools will be constructed on sites already developed. Below is a list of damaged schools, the location where temporary facilities will be erected, and the percent completion of each facility on July 15, 2011.

- Duquesne Elementary School (E.S.) at Duenweg E. S., 202 Malloy Circle, Duenweg, MO (10%).
- Early Childhood at McKinley E.S., 610 S. Forest Street, Joplin, MO (5%).
- East Middle School at Crossroads Industrial Park, 7501 East 26th St., Duquesne, MO. (5%)
- Emerson Elementary at the Duquesne E.S. Campus, 1301 S. Duquesne Road, Joplin, MO (17%).
- Franklin Tech at 4th and Grand St., 402 S. Grand, Joplin, MO (5%).
- Irving E.S. at the Washington Education Center Campus, 1112 E 2nd Street, Joplin, MO (65%).

- Joplin High School at Memorial Campus, 310 W 8th Street, Joplin, MO (5%).
- Joplin High School at Shopko Campus, 101 N Range line Rd, Building D, Joplin, MO (25%).
- Joplin High School at South Middle School, 900 East 50th Street, Leawood, MO (0%).

**Fire Stations:** Two fire stations required temporary facilities to be constructed on the existing site:

- Joplin Fire Station #2, 2216 Maiden Lane, Joplin, MO
- Joplin Fire Station #4, 2010 15th Street, Joplin, MO

Temporary facilities for the fire stations are completed and the City of Joplin anticipates the reconstruction of permanent fire stations within 12 to 18 months.

**St. John's Hospital Regional Medical Center:** St. John's Regional Medical Center is a Sisters of Mercy Health System hospital. The facility took a direct hit by the tornado on May 22, 2011, and sustained extensive damage. In efforts to continue providing medical services, the Sisters of Mercy Health System opened a 60-bed field hospital near the site of the original hospital for emergencies, x-rays, lab, and some in-patient care, until such time more secure temporary facilities can be constructed. Temporary facilities are proposed for an undeveloped site consisting of approximately 31-acres in the general vicinity of the existing hospital.

### **Socioeconomic Impacts:**

**No-Action Alternative:** Under the No-Action Alternative the temporary medical facilities would not be constructed. St. John's was a 367-bed facility that staffed approximately 2,200 full and part-time employees from Joplin and the regional area.

Direct effects would include the loss of the majority of beds and services that St. John's provided. Other medical facilities in the area include the 193-bed Freeman Hospital in Joplin and McCune-Brooks Regional Hospital in Carthage, MO, a 52-bed facility serving patients primarily from the counties of Jasper, Newton, Barton, Greene, and Lawrence, MO. The loss of 367 hospital beds at St. John's is a 67% loss of beds for the regional area. Indirect cumulative impacts include the burden that the loss has placed on the remaining medical facilities and health care systems in the area, as well as medical professionals and staff, both in Joplin and in surrounding communities such as Carthage, Springfield, and other municipalities in Missouri. The no-action alternative would result in the continued stress on health care systems as well as medical professionals and other staff. Citizens from the Joplin and regional area would not receive the same level of routine, specialized, or emergency health care services and in some cases would have to travel greater distances to receive health care.

In addition there would be an economic stress on the area from the loss of employment opportunities at the facility. St. John's employed approximately 2,200 full and part-time people from Joplin and surrounding communities, including office/managerial, professional, technical, clerical, and service employees. Indirect employment includes those additional jobs that are generated through the expenditure patterns of direct employment associated with an industry (i.e., spending by the employees of the hospital and expenditures by the hospital in the purchase of

goods and services supporting its operation). The loss of employment at St. John's would result in reduced expenditures in the local economy, indirectly resulting in cumulative impacts to jobs in the area.

Induced employment follows the economic effect of employment beyond the expenditures of an industry's employees to include jobs created by the stream of goods and services that support businesses in the area (i.e., spending from business activity and employees that exist as a result of the indirect effects of the hospital). When a manufacturer that receives orders from the hospital buys or sells products, the employment associated with those inputs or outputs is considered induced employment. Likewise, when a patient is released from hospital care, that patient may require products (e.g., medicine) and services (e.g., physical therapy) provided by a pharmacy or private medical practice. The pharmacist and physical therapist hold jobs that were indirectly created by the hospital. When they spend their income in the local economy, the jobs created by this third-tier effect are considered induced employment.

The no action alternative would have a negative cumulative impact on indirect and induced employment. A 2003 study reported that Vermont Hospitals supported one additional worker in the state economy for each full-time employee of a hospital or related facility. This figure was based on the direct employment of 14,585 hospital employees state-wide. In addition, Vermont hospitals are responsible for approximately 9.6% of total disposable personal income in Vermont through direct and indirect employment. The study states "Vermont Hospitals play crucial, multiple roles in their local communities. They keep us healthy, employ our families, and pump dollars into local businesses."

One of the hospitals assessed in the study was Central Vermont Medical Center (CVMC), a primary provider of health care services in central Vermont. CVMC is a 122-bed facility that provides comprehensive inpatient, outpatient, and 24-hour emergency care to people living and working in central Vermont communities. Over a three year period, average annual employment at CVMC was 1,180 employees, including full-time, part-time, contractual, and per diem employees. Direct jobs provided by CVMC over the course of 3-years from 2000 to 2003 were 621 (calculated as an annual average of the number of full-time jobs, not employees). In turn, 522 indirect jobs in areas of services, retail trade, construction/mining, state and local government, finance/insurance/real estate, and other sectors were generated by the hospital.

Additional cumulative impacts related to the No Action alternative would be the loss of jobs that would have been created through direct and indirect employment, during the construction and related activities associated with the proposed temporary hospital facility.

**Alternative 2:** Under this alternative, temporary medical facilities would be constructed in the same general area as the existing field hospital and the damaged St. John's. The temporary medical facilities are proposed on a 31-acre, undeveloped site that would provide sufficient space for the facilities necessary to provide an increased level of medical services and health care to people and families within the local and regional communities, until a permanent hospital replacement is completed. The region lost a 367-bed facility with a full range of services. Although the field hospital provides some services, timing is a crucial factor in planning for a longer-term, temporary medical facility that could provide a level of medical care closer to what was provided prior to the tornado event. The Proposed Action would provide a more complete temporary medical facility

for people within the local and regional communities. The proposed temporary facilities would consist of modular buildings with an anticipated 3 to 5 year span of temporary use. Preliminary plans at this time call for the development of approximately 25 acres of the site to construct modular buildings, including among others, public areas, an Emergency Department, Intensive Care Unit, Dietary Department, Pharmacy, Lab, three Medical Surgery Units, Woman's Nursery and Pediatrics Unit, and Diagnostic Imaging Unit, and storage. In addition, the preliminary plans call for sidewalks, parking, helicopter pads, and landscaping.

The construction of temporary medical facilities would restore a larger portion of the full-range of services that St. John's provided prior to May 22, 2011. Citizens from the Joplin and regional area would receive substantially more services than the existing field hospital can offer. Social and economic stresses on Joplin and surrounding communities would be reduced. An increased number of St. John's employees would remain on the payroll of the hospital and in turn create increased spending in the local/regional economy. Increased spending and the operation of the hospital would have a positive impact on the flow of goods and services as well as indirect and induced employment in the region. Additionally, the construction of the temporary facilities would create jobs, as well as goods and services, thus increasing employment and contributing to indirect and induced employment.

### **Summary:**

Alternative 1-No Action Alternative: This alternative would not contribute to significant cumulative impacts on most components of the potentially affected environment. However, socioeconomic impacts on the community's medical facilities and services under existing conditions, which are the basis for the need for the proposed action, would continue under the No Action alternative and contribute to significant impacts on medical services and health-care that have existed since May 22, 2011. The No Action alternative would result in significant health, economic and personal hardships for residents of the area, and along with associated impacts, would further strain the city and county's social and economic infrastructure.

Alternative 2- Temporary Medical Facilities on the 31-Acre Site (Proposed Action): The proposed action would not result in significant cumulative impacts on human health or the natural environment. The proposed action would reduce the adverse impacts from the tornado-related loss of medical services that are vital to Joplin and overall, create positive cumulative socioeconomic impacts to Joplin and the surrounding community.

## **L. Public Involvement**

Due to the emergency nature of this action, an expedited review process was conducted. A Public Notice was issued on July 13, 2011, with a 5-day comment period, expiring on July 17, 2011. The Public Notice was published for five days in the Joplin Globe and Jasper County Citizen newspapers. In addition, the Public Notice and the Draft EA were posted on the Public Notice Board at Joplin City Hall, 602 South Main Street, Joplin, MO, and at Disaster Recovery Centers located at First Methodist Church, 501 West 4th Street and Taylor Performing Arts Center, 3950 East Newman Road, Joplin, MO. No public comments were received. Therefore, as described in the Draft EA, the initial Public Notice shall constitute the Final Public Notice, and this document shall constitute the Final EA.

## **M. Conclusion**

Subsequent to posting the Public Notice, it was determined that it was in the public interest to conduct a cumulative impact analysis for the proposed action, which is included as Section K of this document.

Attachment 10 shows photographs of the devastation to Joplin, Missouri after the EF-5 tornado that occurred on May 22, 2011. The Proposed Action will involve the construction of temporary medical facilities to enable health professionals to provide vital medical and health related services and facilities to the residents of Joplin and the surrounding region, and to relieve the burden that the loss of the hospital has placed on the remaining medical facilities in the region. Development of the site will require a number of steps including surveying, clearing, stripping, soil testing, grading, and utility and access road design and installation, placement of modular components, and the installation of stormwater and erosion control measures.

On the basis of the findings of this EA and through coordination with the appropriate agencies, it is our final determination that implementation of the Proposed Action, with the mitigation measures described in this document, would not have a significant adverse impact on the quality of the human or natural environment. All the requirements of NEPA shall be satisfied upon the completion of a Finding of No Significant Impact.

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## **O. Agencies Consulted**

Environmental Protection Agency

Missouri Department of Conservation

Missouri Department of Natural Resources

Missouri State Historic Preservation Officer

Natural Resources Conservation Service

U.S. Army Corps of Engineers

U.S. Fish and Wildlife Service

U.S. Department of Homeland Security-FEMA