

Draft Environmental Assessment

# Airport Temporary Housing Sites

Joplin, Jasper County Missouri

FEMA-1980-DR-MO

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**FEMA**

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## Acronyms and Abbreviations

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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: Airport Temporary Housing Sites**

## **B. Environmental Assessment**

This 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.

## **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, about 25% of Joplin was destroyed, but the town's emergency manager stated that the number was between 10% and 20%, with roughly 2,000 buildings destroyed. The Missouri Emergency Management Agency reported more than 990 injured and as of June 13, the death toll from the tornado stood at 152.

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. Displaced individuals and families are currently living in shelters and at other dispersed temporary housing locations. Therefore, the need exists to expedite the selection and development process of group site locations for temporary mobile homes. Temporary housing will minimize the amount of time displaced individuals spend in shelters and at other dispersed locations.

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). Section 408 of the Stafford Act authorizes FEMA's Individual Assistance Program to provide emergency temporary housing for disaster victims whose homes are uninhabitable. The purpose of this project is to assist the Joplin residents in their recovery from the natural disaster by providing temporary housing.

## **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 DEA: the No Action Alternative, where FEMA would not build temporary housing, and the Proposed Action, where FEMA would build temporary housing in Joplin, Jasper County, Missouri.

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

Under the No Action Alternative, FEMA would not fund the Proposed Action. Because the tornado destroyed approximately 10-20 percent of the houses and a large number of Joplin's residents remain in other locations with their families and friends, in travel trailers, and motels in other surrounding cities such as Carthage and Springfield. This will result in further economic and personal hardships for affected residents, disrupt school attendance and the school system, and further strain the county's social and economic infrastructure.

### **Alternative 2 – Temporary Housing on the Joplin Airport Site (Proposed Action)**

In considering the "range of reasonable alternatives," efforts were made to first use existing mobile home sites. As a result of the number of people displaced by the Joplin tornado, existing mobile home sites were limited and could not address the current need. The Proposed Action provides temporary housing for families displaced by the tornado in the Joplin vicinity of Jasper County, Missouri. This alternative provides disaster victims with temporary housing on a group housing site located at 24740 Missouri 171, Joplin, Jasper County, Missouri. The Proposed Action Alternative enables the development of up to 500 mobile homes on the site. The group site will include development of temporary gravel pads for housing foundation, emergency storm shelters, bus shelters, mailbox units, gravel and asphalt roadways, and all utilities related to the infrastructure of the community including a sewer system, waterline installation, phone, cable, and electric. FEMA expects that the mobile homes will be hauled from the site to suitable locations elsewhere (to be determined on a case-by-case basis) when the temporary housing need ends. The site will then be seeded or used by the property owner in a manner consistent with applicable land use approvals.

## **E. Project Location**

The Joplin Airport temporary housing site is located at 24740 Missouri 171, Joplin, Missouri, which is in the west central portion of Jasper County, Missouri and within the limits of the city of Joplin. This site is bordered on the north by McArthur Boulevard, (Highway 171) and it is 7 miles north of Interstate 44 and is accessible via Highway 43 and Highway 71. (see Attachment 1, Figure 1, Aerial Photo Vicinity Map in the attachments section). The proposed site is Parcel 16-6.0-23-00-000-001.000 located in the NE ¼ Section 23, Township 28 north, Range 33 west, in Jasper County, Missouri (Latitude 37.141093 N and Longitude -94.500779 W).

## **F. Site Description**

The proposed group housing site consists of approximately 60 acres on the 115-acre parcel owned by the City of Joplin. The property has been used for agricultural activities in the past; however, the property is zoned industrial. Utility services including water, sewer, power, and telephone will be extended to the site. These utilities will be operational when residents begin moving into the temporary shelters. The site is immediately bordered by an existing road to the north, with an access road into the property from the east. Bordering the property to the south is a residential development with ongoing new home construction. To the east is existing industrial development and to the west are agricultural lands. The terrain is relatively level (1% to 3% slope) with no streams present on this property. The action would result in the development of up to 500 mobile homes on the site. The group site will include development of temporary gravel pads for housing foundation, emergency storm shelters, bus shelters, mailbox units, gravel and asphalt roadways, and all utilities related to the infrastructure of the community including a sewer system, waterline installation, phone and cable, and electric. FEMA expects that the mobile homes will be hauled from the site to suitable locations elsewhere (to be determined on a case-by-case basis) when the temporary housing need ends. The site will then be seeded or used by the property owner in a manner consistent with applicable land use approvals.

## **G. Project Description**

The Proposed Action will involve the development of up to 500 mobile homes on the site. The group site will include development of temporary gravel pads for housing foundation, emergency storm shelters, bus shelters, mailbox units, gravel and asphalt roadways, and all utilities related to the infrastructure of the community including a sewer system, waterline installation, phone and cable, and electric. FEMA expects that the mobile homes will be hauled from the site to suitable locations elsewhere (to be determined on a case-by-case basis) when the temporary housing need ends. The site will then be seeded or used by the property owner in a manner consistent with applicable land use approvals. Development of the site will require a number of steps including surveying, clearing, stripping, soil testing, grading, utility and access road design and installation, and stormwater and erosion control. Site occupancy is not expected to exceed 18 months. Utilities on the site will include potable water, sanitary sewer, storm sewer, telephone, and electricity. The contractor will ensure that the new utility infrastructure is compatible with capacity needed for the remainder of the city. Access to the site from surrounding roads along with internal circulation will also be designed in coordination with applicable city and county staff. Site preparation will require grading to create appropriate building pads, road grades, and to shed stormwater to appropriate locations. Best management practices (BMPs) will be implemented to reduce or eliminate runoff impacts during proposed construction activities and reduce the potential for soil erosion after construction. A safety fence will be installed and maintained around the site perimeter during construction. FEMA expects that the mobile homes will be hauled from the site to suitable locations elsewhere (to be determined on a case-by-case basis) when the temporary housing need has ended. The site can then be seeded and restored to previous conditions and/or used by the landowner in a manner consistent with applicable land use approvals.

## H. Sites Considered and Dismissed

In order to expedite the site selection process, the City of Joplin provided the Corps with a list of potential sites. These were reviewed available aerial photos and maps, conducted site reconnaissance field surveys, and contacted state and local officials to identify the best potential sites. Factors considered in choosing a site include: site topography; property owner willingness; past land use, if it was already planned for development; access to existing utilities; and engineering feasibility. Some sites were dropped from consideration for various reasons. Other suitable group sites may be addressed in a subsequent NEPA Environmental Assessment.

## I. Affected Environment and Environmental Consequences

In order to meet the proposed purpose and need of timely delivery of emergency temporary housing, the Corps conducted an expedited environmental review process to analyze all natural and human environmental issues associated with the Joplin Airport site. The environmental review process included field reconnaissance at the site, background research, and expedited agency consultation. The field reconnaissance was conducted on June 12 & 13, 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 with the Environmental Protection Agency, U.S. Fish and Wildlife Service (USFWS), Natural Resources Conservation Service (NRCS), Missouri Department of Conservation (MDC), Missouri Department of Natural Resources, and Missouri State Historic Preservation Office (SHPO) produced “No Effect” determination letters from each agency. 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 nondetectable 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.

Affected Environment/ Resource Area	Impacts				Mitigation	Agency Coordination/Permits	Comments
	Negligible	Minor	Moderate	Major			
Geology & Soils	X						The implementation of construction BMPs will reduce sedimentation.
Hydrology & Floodplains (Executive Order 11988)	X						Site is outside designated FEMA 500 year floodplain according to FEMA floodplain maps.
Wetlands (Executive Order 11990)	X						The site does not contain jurisdictional wetlands.
Water Quality		X			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.	The drainage system will be required to meet local and county requirements,
Air Quality		X			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.		County air shed is in attainment for criteria pollutants per the Clean Air Act.
Vegetation & Wildlife	X						The site would be seeded and /or used by the landowner in a manner consistent with applicable land use approvals after the temporary housing is removed.
Threatened & Endangered (Endangered Species Act Section 7)	X					USFWS (6/14/11) and MDC (6/15/11) determinations of "No Effect."	
Cultural Resources (National Historic preservation Act Section 106)	X				If unanticipated historic or cultural materials are discovered during construction, construction activities shall immediately cease within 100 feet of the materials until their cultural affiliation and ultimate disposition are determined in consultation with the Kansas SHPO, FEMA Environmental Liaison Officer and other interested parties.	SHPO determination of "No Effect" (6/14/11).	
Socioeconomic/Recreation	X						
Environmental Justice	X						

Affected Environment/ Resource Area	Impacts				Mitigation	Agency Coordination/Per mits	Comments
	Negligible	Minor	Moderate	Major			
Noise		X			Temporary housing will be located outside the area identified for increased airport noise. 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; 3) completing construction closest to potential sensitive receptor first; and/or 4) completing noisier activities during the day, if using a 24-hour schedule.		See Section J.
Safety & Security		X			Implement BMPs for construction and mobile home anchoring and installation. Approved safety and management plans would be implemented to address phased construction, UFAS considerations, ventilation to prevent formaldehyde vapors, and appropriate signage and fencing. Emergency shelters would be included to accommodate all residents of the mobile homes. All FEMA manufactured housing units must now meet strict low-formaldehyde contract specifications.	The contractor will coordinate with city, county and state governments to obtain required permits.	Mobile homes 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 to at all housing sites. All activities will be conducted in a safe manner in accordance with the standards specified in OSHA regulations. See Section J.
Hazardous Materials	X				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. Alternatively, the site could be abandoned in view of finding another site that better meets the identified project purpose and need.		No sites of concern were identified by the hazardous materials database search queried on June 15, 2011. No potential environmental hazards were observed during field reconnaissance on June 12 & 13, 2011.
Traffic & Transportation		X			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 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, Missouri, which 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 topography of the proposed Joplin Airport site is relatively flat to gently sloping (1 to 3 % slope) with constructed terraces and numerous small depressions. Information from the U.S. Department of Agriculture Natural Resources Conservation Service (NRCS) shows that two soil types are present on the site. The majority of the site is comprised of Maplegrove silt loam, with 1 to 3 percent slopes. Newtonia Eldorado silt loam is also found over much of this site. These two soils are well drained to moderately well drained, the Maplegrove silt loam does have partially hydric conditions. Both of these soils are classified as prime farmland. Under the Farmland Protection Policy Act, coordination with the Natural Resources Conservation Service is required. Since the project site is located within the city limits of Joplin, the NRCS replied that this proposed temporary housing site is exempt from the Farmland Protection Act (see Attachment 2, Figure 2, NRCS clearance in the Attachments section). The No Action Alternative would entail no construction or preparation of sites for temporary emergency housing of tornado victims; 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 mobile homes. There are negligible impacts to geology and soils, therefore mitigation measures are not required.

### **Hydrology and Floodplains**

A review of the Proposed Action's found that the effect that it would have on hydrology and floodplains would be negligible. The Airport Temporary Housing Sites do not contain any streams and the largest stream near the site is Center Creek, located about two miles to the north of the north property line. Smaller intermittent to ephemeral stream channels do flow within ½ mile of the east, west and south property lines of the site. Due to the relatively level topographic at this location and the terracing that was done, there is no clear channel that would carry rainwater off the property. Rain falling on the site of the Proposed Action exits the property at different locations along the south and west sides of the property. This is primarily due to the terracing that has altered that natural flow patterns on this property. A number of low micro depressions (wetlands), some with standing water were observed in several areas during a site visit on June 12, 2011. The FEMA Maps were reviewed and the site is located outside any designated flood plains (see Attachment 3, Figure 3, FEMA Flood Map from Google Earth in the Attachment section). The existing information on the hydrology and floodplains of the proposed site indicates that there are no floodplain issues to preclude the use of the site for temporary mobile homes. The No Action Alternative would entail no construction or preparation of sites for temporary emergency housing of tornado victims; therefore, there would be no impacts to floodplains.

## **Mitigation Measures**

The Airport Temporary Housing site is determined to be outside any floodplain, therefore mitigation measures are not required.

## **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.” A review of the U.S. Fish and Wildlife Service (USFWS) National Wetland Inventory Maps (NWI) did not identify any wetlands with the review area. A field reconnaissance of the site revealed a number of small seasonal isolated depressional wetlands (approximately 20 or 30) scattered throughout the field. On average these small isolated wetland areas would each measure approximately 0.01 acre in size. The entire site was terraced sometime in the past and it appears that the terraces may have influenced the creation of the small wetland areas. At the south end of the property there is an old pond site which has silted-in. It consisted of approximately ½ open water and one half isolated artificial wetlands. The wetlands at this pond site measured approximately 0.1 acre. The area is relatively level with no flood plains or stream channels present on the property. 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.” Only isolated depressional wetlands and isolated artificial wetlands were identified on this site. Since these isolated wetlands have no nexus to traditional navigable waters they are not jurisdictional and therefore not subject to Section 404 of the Clean Water Act. The Environmental Protection Agency provided a concurrence to the Corps that the wetlands are isolated and non jurisdictional for the purposes of Section 404 of the Clean Water Act (see Attachment 4, Figure 4, Wetland delineation and EPA clearance in the Attachments section) 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 emergency housing of tornado victims; therefore, there would be no impacts to any jurisdictional wetlands.

## **Mitigation Measures**

There are negligible impacts to wetlands, therefore mitigation measures are not required.

## **Water Quality**

There are no streams located on the subject property. The largest stream near the site is Center Creek, located about two miles to the north of the north property line. Smaller intermittent to ephemeral stream channels do flow within ½ mile of the east, west and south property lines of the site. The property is terraced, which has changed the natural flow patterns on this property. As a result of the terracing and the relatively level topographic at this location there is no clear channel that would carry rainwater off the property. Rain falling on the site of the Proposed Action exits the property at different locations along the south and west sides of the property. A number of low micro depressions (wetlands), some with standing water were observed in several areas. 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 emergency housing of tornado victims; 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 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.

## **Air Quality**

Within the Joplin Airport temporary housing area, air quality programs are coordinated with the Missouri Department of Natural Resources (MDNR). On the Federal level, air quality programs are coordinated with Region VII of the Environmental Protection Agency (EPA). Jasper County is considered an attainment area for all criteria 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 manufactured homes 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. 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 some longer commutes by the displaced people than under the Proposed Action and, therefore, a very small amount of additional vehicle emissions. However, because the No Action Alternative would not involve construction activities and emissions, it 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 and home removal 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 Joplin Airport site is dominated by tall fescue and is currently used for hay production. For the Proposed Action, land use in the project area is predominantly agricultural with surrounding properties being developed industry and single-family residential. Site preparation for construction of temporary emergency housing would require clearing and grading, resulting in the loss of the existing cover. FEMA and the Corps expects that when the temporary housing need has ended, the mobile homes would be hauled from the site to suitable locations elsewhere. The site can then be seeded and restored to previous conditions and/or used by the landowner in a manner consistent with applicable land use approvals. Thus, the minimal impact to existing vegetation from the Proposed Action would be temporary. Wildlife in the area for the Proposed Action is typical of an agricultural landscape. Common wildlife species include white-tailed deer, coyote, northern raccoons, striped skunk, Virginia opossum, eastern gray squirrel, least shrew, and eastern mole. Common birds found in the local area include the American robin, eastern meadow lark, house finch, red-winged blackbird, European starling, mourning dove, and black-capped chickadee. Overall, habitat quality in the immediate project area is low because of agricultural and residential disturbance, which severely limits the extent and diversity of wildlife habitat. The Proposed Action would have minimal impact on the existing faunal conditions. The No Action Alternative would entail no construction or preparation of sites for temporary emergency housing of tornado victims; therefore, there would be no impacts to either vegetation or wildlife.

### **Mitigation Measures**

There are negligible impacts to vegetation and wildlife, therefore mitigation measures are not required.

## **Threatened and Endangered Species**

The project's effect on threatened and endangered species has been determined to be negligible. The site is currently platted for industrial development and is being used for agriculture. The entire area is terraced and has been planted to tall fescue. As a result, native warm season grasses are no longer present at this site. This property is actively mowed for hay production, further reducing its value to wildlife. 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 14, 2011, by stating that there are no Federally listed threatened or endangered species at the proposed temporary housing location (see Attachment 5, Figure 5, USFWS ESA clearance in the Attachments section). The MDC provides a determination that the Proposed Action will have No Effect on any state listed threatened or endangered species or species in need of conservation (see Attachment 6, Figure 6 MDC Determination of No Effect in the Attachments section). The No Action Alternative would entail no construction or preparation of sites for temporary emergency housing of tornado victims; 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 Proposed Action is located in Jasper County, in southwestern Missouri. The site of the Proposed Action is located just south of the Joplin Airport, south of McArthur Boulevard (Highway 171) in the City of Joplin. Coordination was done with both the Corps Kansas City District Archaeologist and the Missouri State Historic Preservation Office (SHPO). According to the Missouri SHPO there are no historic or cultural resource sites within the site. The Missouri SHPO issued an email that provides a determination that the Proposed Action will have No Effect on historic properties (see Attachment 7, Figure 7 SHPO Determination of No Effect, in the Attachments section). The No Action Alternative would entail no construction or preparation

of sites for temporary emergency housing for tornado victims; 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 City of Joplin in Jasper County, located in southwestern Missouri. According to the U.S. Census Bureau, the county has a total area of 409,600 acres, or about 640 square miles. 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 household, 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 City of Joplin is located at 37° 5' 3" N, 94° 30' 47" W 37 (37.084167, -94.513056). According to the U.S. Census in 2005-2009, there were 48,790 people in Joplin and the city has a total area of 31.5 square miles. Based on the 2005-2009 Census, there were 20,228 households and 11,731 families residing in 23,361 housing units. The population density was 1,549 persons per square mile. The racial makeup of the city was 90.2 percent White, 1.8 percent Native American, 1.2 percent Asian, 1.2 percent from other races, and 2.3 percent from two or more races. Hispanic or Latino persons were 3.2 percent of the population. Of the 20,228 households in Joplin, 26.6 percent had children under the age of 18 living with them, 41.2 percent were married couples living together, 12.7 percent had a female householder with no husband present, and 42.0 percent were non-families. Of all households, 33.5 percent were made up of individuals and 12.6 percent had someone living alone who was 65 years of age or older. The average household size was 2.32 and the average family size was 2.92. The median age was 35.3 years. The median income for a household in the city was \$35,566, and the median income for a family was \$42,967. The per capita income for the city was \$21,247. About 14.3 percent of families and 18.3 percent of the population were below the poverty line, including 24.1 percent of those under age 18 and 8.4 percent of those aged 65 or older.

The Proposed Action would result in negligible social or economic impacts. The Proposed Action would have a positive impact on public health and safety, community cohesion, and employment in the area. People displaced by the tornado event will be able to stay in the community and keep their jobs while their homes are being made habitable. The site being considered for development of temporary emergency housing is near existing residential and commercial areas. The temporary residents, therefore, would be close to stores, post offices, schools, and other services necessary for urban living. During site development and the staging and placement of the mobile homes for the Proposed Action, short-term negative impacts would likely occur in the following areas: an increase in noise levels and disruption of normal community traffic patterns. These effects would be attenuated through the appropriate placement of construction and safety signage.

These effects would be short-lived and terminate when site development and mobile home placement were complete. The No Action Alternative would entail no construction or preparation of sites for temporary emergency housing for tornado victims. Residents that could not return to their homes would have to find other accommodations such as with friends or family members or in hotels or apartments available in nearby areas. Persons unable to remain in Joplin would face longer travel times and social disruption as a result of relocation.

## **Mitigation Measures**

There are negligible socioeconomic impacts, therefore mitigation measures are not required.

## **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 emergency housing of tornado victims; 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 including aircraft traffic 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.

When considering noise levels near airports DNL 60-65 dB -- Increases in noise of 3 dB or more that remain between DNL 60-65 dB do not result in significant exposure but can be noticeable and may be highly annoying to some people. The highest noise levels at the temporary housing site would be from noise from the nearby airport. Based on the FAA map for this site, airport noise levels directly adjacent to the housing site would be 60 dBA. Within the proposed action site, the noise levels from the airport would be less than 60 dBA, well under the normal range of residential land uses. This proposed housing site will be located outside the area identified by the FAA as having elevated airport noise levels (see Attachment 8, Figure 8, FAA Noise Map of subject site in the Attachments section). Therefore, the effects of the airport noise at the proposed housing site would be minimal.

Potential noise impacts associated with construction of the Proposed Action will be reduced to the maximum extent possible. Once the temporary housing is established, additional noise would be generated from the vehicles and activities of people inhabiting the completed units. While noise at the selected site would increase, 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, because the temporary site would eventually be vacated. The No Action Alternative would entail no construction or preparation of sites for temporary emergency housing of tornado victims; 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 the housing units to the site, and the well-being of the people living in or adjacent to the temporary housing site. For implementation of the Proposed Action, the contractor's construction engineer will identify and rectify potential safety hazards at the selected site staging and housing sites. Safety during construction is a high priority for both the personnel constructing the sites, and residents associated with the Proposed Action. 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. Chainlinked 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 site's common or public areas will be accessible for people with disabilities in accordance with UFAS guidelines through providing firm, stable, and slip-resistant materials. The mobile home units will be installed to comply with the appropriate manufacturer's requirements; the most up-to-date safety procedures provided in FEMA technical papers on installation of mobile homes; as well as federal, state, and local codes and ordinances including safety precautions in installing anchors that will maximize safety and reduce risks during severe weather events.

FEMA now requires that all manufacturers provide temporary housing units that meet indoor air levels for formaldehyde that are less than 0.016 parts per million. Incorporated as a new contract specification, this is not a health based value and occupants should not presume that current temporary housing units that exceed this value are of concern for potential formaldehyde health effects. FEMA has modified its contracting procedures to require that manufacturers certify that their temporary housing units meet this indoor air level for formaldehyde. FEMA will implement a testing program to confirm compliance and provide the results to States for their review. When temporary housing is needed, each State will exercise its public health responsibility and determine the indoor air quality level for formaldehyde that is acceptable before any units are provided to its residents.

While the U.S. Government has does not have an indoor air health level for formaldehyde in housing, we note that the World Health Organization has set a value of 0.100 ppm for odor and sensory irritation for the general population and the nonindustrial indoor environment. Similarly, Health Canada has recommended a value of 0.040 ppm for chronic exposures.

The safety and security of the residents of the mobile homes will be a high priority. Precast concrete storm shelters will be placed at the site to provide shelter to residents in the event of severe storms. Fire and police protection will be provided by the City of Joplin. The school district shall provide busing for the area students if required. The locations of temporary school facilities have been established and it is anticipated that schools are located in a manner that is conducive to the safety and convenience of the residents. For other safety concerns, no housing would be located within the flight path of the Joplin Airport. 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 sites for temporary emergency housing of tornado victims; 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 trailer installation, implementation of approved safety and management plans, phased construction, UFAS considerations, and appropriate signage and fencing. The fencing and gates shall not impede or hinder future restoration work. 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 Occupational Safety and Health Administration (OSHA) regulations. Emergency shelters should be included in the group site to accommodate the residents of the mobile homes including individuals with limited mobility and disability.

## **Hazardous Materials and Toxic Wastes**

A review of potential hazardous and toxic materials associated with the site and surrounding areas was conducted. The report is based on records observations made of the site and adjoining properties during a field reconnaissance survey on June 12 & 13, 2011. In addition, the report includes data generated through research of historical documents, topographic maps, and aerial photographs; as well as the findings of the Google Earth data layers for hazardous sites (see Attachment 9, Figure 9, Hazardous Sites Maps in the Attachments section). The summary of the findings of the report follows: The site is currently developed as an agricultural field and appears to have been historically developed for agricultural hay production. At the time of site reconnaissance, the subject property was planted to tall fescue. No areas of stressed vegetation, dumping, structures, or scared surfaces were observed. Several depressed areas of various sizes were observed across the subject property and many contained standing water and/or moist soil. No sheens, odors, or stressed vegetation were observed in the vicinity of these areas. The research of federal, state, and local government databases revealed no record of hazardous materials sites or spills at the subject property or within a 1,000-foot radius of the subject

property borders. The Missouri Department of Natural Resources (DNR) did say that there was a Brownfield cleanup site on the extreme northeast corner of the property for mercury (location is a drainage so it wouldn't be used for temporary housing). According to Missouri DNR the site was cleaned up and there were no other contaminant sites on the property. Missouri DNR provided clearance from that the property was safe for use temporary housing use (see Attachment 10, Figure 10, Missouri DNR clearance in the Attachments section). The No Action Alternative would entail no construction or preparation of sites for temporary emergency housing of tornado victims. No hazardous materials were observed at the site, therefore there would be no impacts from hazardous materials.

### **Mitigation Measures**

Hazardous materials were not observed at the site or through the research; 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**

Currently, a major state highway borders the north and a road access the property on the east. A traffic lights is located near the northeast corner of the property. Traffic within the general project area would increase due to the ingress and egress of construction equipment. However, this traffic impact would be short term and limited to the duration of construction. Traffic volumes would also increase due to the residents of the site. Again, this traffic impact would be short term and minor to the duration of the need for temporary housing at the site. The No Action Alternative would entail no construction or preparation of sites for temporary emergency housing of tornado victims; therefore, there would be no impacts to traffic and transportation.

### **Mitigation Measures**

Due to the increased traffic volume associated with the construction vehicles and temporary residents, the contractor would need to work with the City Public Works Department and the Jasper County Road and Bridge Supervisor 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 ample room for fire and emergency apparatus to pass as defined by local codes. The roadways should at a minimum be graveled and compacted to facilitate maintenance and upkeep, local environment, traffic volume, and usage.

## **K. Public Involvement**

Due to the emergency nature of this action, the public would be issued concurrent with the development of the temporary housing sites. A Public Notice and Public Notice of Availability, would be published in the *Joplin Globe* and other local newspapers. The Public Notice and the

DEA would also be posted on the Public Notice Board at the Joplin City Hall, 602 South Main Street, Joplin, Missouri 64801. If no substantive comments were received, the DEA would become Final and the initial Public Notice would also serve as the final Public Notice. If no public comments were received, this document serves as the final EA.

## **L. Conclusion**

Attachment 11 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 a temporary group site to accommodate up to 500 mobile homes. Development of the site will require a number of steps including surveying, clearing, stripping, soil testing, grading, utility and access road design, and installation, and stormwater and erosion control. Site occupancy is not expected to exceed 18 months. The project will ultimately provide the installation of utility and roadway infrastructure supporting future residential development of the site. The water and sewer service may allow for future development of adjoining areas. Expansion to these areas would, by its nature, need to be consistent with the growth management objectives of the City of Joplin Jasper County. During the course of this EA, FEMA coordinated with the following agencies: USFWS; Missouri Department of Natural Resources; Missouri SHPO; Missouri Department of Conservation; Missouri Natural Resource Conservation Service; KDWP; Jasper County Appraiser, Register of Deeds, and Planning Departments; and the City of Joplin Administrator and Public Works Department.

On the basis of the findings of this EA and coordination with the appropriate agencies, it is our initial determination that implementation of the Proposed Action and mitigation measures described in this EA would not have any significant adverse impacts to the human or natural environment. All requirements of NEPA will be satisfied after the review period for the Environmental Assessment and Finding of No Significant Impact.

## **M. References**

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Executive Order 12898. 1994. Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, 59 FR 7629.

Executive Order 11988. 1977. Floodplain Management, 42 FR 26951.

Executive Order 11990. 1977. Protection of Wetlands, 42 Federal Register (FR) 26961.

Farmland Protection Policy Act of 1981, Section 1540(b), 7 U.S.C. 4201(b).

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Robert T. Stafford Disaster Relief and Emergency Assistance Act (Public Law 93-288).  
[http://www.fema.gov/pdf/about/stafford\\_act.pdf](http://www.fema.gov/pdf/about/stafford_act.pdf). As amended 1.1.3 USC at  
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The White House. 2011 (last updated). Statement on Federal Disaster Assistance for Missouri.  
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16 U.S. Code (USC) 470 et seq. National Historic Preservation Act of 1966. Public Law 102 575, as amended.

16 USC 470aa et seq. Archaeological Resources Protection Act of 1979. Public Law 96-95, as amended.

16 USC 1531 et seq. Endangered Species Act of 1973. Public Law 100-478, as amended.

25 USC 3001 et seq. Native American Graves Protection and Repatriation Act. Public Law 101-601.

33 USC 1251 et seq. Clean Water Act. Public Law 100-4, as amended.

42 USC 4321 et seq. National Environmental Policy Act of 1969. Public Law 91-190, as amended.

U.S. Department of Agriculture. 1986. Soils Survey of Jasper County, Missouri. June.

U.S. Department of Agriculture, National Resources Conservation Service (USDA-NRCS). 2010. <http://websoilsurvey.nrcs.usda.gov/app/>. Accessed June 2011.

USDA-NRCS. 1986. Soil Survey of Jasper County, Missouri. June. <http://www.soils.udsda.gov>. Accessed June 2011.

U.S. Fish and Wildlife Service. 1990. National Wetland Inventory map, Joplin, Missouri.

U.S. Fish and Wildlife Service. State-listed Species Information.  
[http://www.ecos.fws.gov/tess\\_public/StateListingAndOccurrence.do?state=MS](http://www.ecos.fws.gov/tess_public/StateListingAndOccurrence.do?state=MS). Accessed June 2011.

U.S. Fish and Wildlife Service. 2006 (last updated). Wetlands Information.  
<http://www.wetlandfws.er.usgs.gov>. Accessed June 2011.

U.S. Geological Survey Topographic Maps. “Webb City and Carl Junction” Quadrangles.

**Additional Information Websites:**

<http://www.epodunk.com/cgi-bin/popInfo.php?locIndex=4680>  
<http://www.fema.gov/plan/ehp/index.shtm>  
<http://www.epa.gov/owow/wetlands/regs/eo11990.html>

**Agencies Consulted:**

City of Joplin

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

Figure 1, Vicinity Map

(See attached)

# JOPLIN MISSOURI TEMPORARY HOUSING SITE SELECTION - AIRPORT SITE 2



**Legend**

- SewerManholes
- SewerMain
- 100 year Flood Zone
- 500 year Flood Zone
- NWI Wetlands (2009)
- Mine Waste Areas
- Lead Cont. (>=400 ppm)



0 250 500 Feet

DISCLAIMER: While the United States Army Corps of Engineers, Joplin District Office, has prepared this map and associated data, it is not a warranty, representation, or guarantee of accuracy. It is provided for informational purposes only. The USACE, its officers, agents, employees, or servants do not warrant, represent, or guarantee the accuracy or completeness of the information provided on this map or associated data. By using this map and associated data, you acknowledge that you are assuming all liability for any errors or omissions. The USACE, its officers, agents, employees, or servants do not warrant, represent, or guarantee the accuracy or completeness of any data used in the USACE, its officers, agents, employees, or servants' maps and associated data. The USACE, its officers, agents, employees, or servants do not warrant, represent, or guarantee the accuracy or completeness of any data used in the USACE, its officers, agents, employees, or servants' maps and associated data.

Figure 2, NRCS clearance

(See attached)



United States  
Department of  
Agriculture

Natural  
Resources  
Conservation  
Service

688 State Hwy. B, Suite 100  
Springfield, MO 65802  
PHONE: 417-831-5246, ext. 138  
FAX NUMBER: 417-862-0438

Email: [allan.johnston@mo.usda.gov](mailto:allan.johnston@mo.usda.gov)

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Subject: Farmland Conversion Impact Rating (AD - 1006)  
Joplin Tornado Relief  
Temporary Housing  
Jasper, County Missouri. 64803-2627

Date: June 15, 2011

To: Luke M. Cory  
Regulatory Team Leader  
U.S. Army Corps of Engineers  
1230 E. 7<sup>th</sup> Street  
Joplin, Mo. 64803-2627

File Code: 310-11-12- 5

Dear Mr. Cory:

Enclosed for the above referenced project is the completed AD - 1006 form. 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, FPPA does not apply. Do not complete additional parts of the AD-1006 Form.

No known wetlands should be impacted by the project.

Soils information can be obtained at the following Internet address:

<http://soils.usda.gov>

Please call if I can be of additional assistance.

Sincerely,

Allan R. Johnston  
Area Resource Soil Scientist

cc/watt, Robert Paul, District Conservationist, NRCS Field Office, Carthage, MO  
Montic Hawks, Area Conservationist, NRCS Area Office, Springfield, MO

U.S. Department of Agriculture

**FARMLAND CONVERSION IMPACT RATING**

<b>PART I (To be completed by Federal Agency)</b>		Date Of Land Evaluation Request	6/15/11
Name Of Project	Joplin Tornado Relief	Federal Agency Involved	USACE
Proposed Land Use	Temporary Housing	County And State	Jasper, Missouri

<b>PART II (To be completed by NRCS)</b>		Date Request Received By NRCS	
Does the site contain prime, unique, statewide or local important farmland? (If no, the FPPA does not apply - do not complete additional parts of this form)		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Major Crop(s)	Farmable Land In Govt. Jurisdiction Acres %	Acres Irrigated	Average Farm Size
Name Of Land Evaluation System Used	Name Of Local Site Assessment System	Amount Of Farmland As Defined in FPPA Acres %	Date Land Evaluation Returned By NRCS <b>06/15/11</b>

<b>PART III (To be completed by Federal Agency)</b>	Alternative Site Rating			
	Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly				
B. Total Acres To Be Converted Indirectly				
C. Total Acres In Site	0.0	0.0	0.0	0.0

<b>PART IV (To be completed by NRCS) Land Evaluation Information</b>				
A. Total Acres Prime And Unique Farmland				
B. Total Acres Statewide And Local Important Farmland				
C. Percentage Of Farmland In County Or Local Govt. Unit To Be Converted				
D. Percentage Of Farmland In Govt. Jurisdiction With Same Or Higher Relative Value				

<b>PART V (To be completed by NRCS) Land Evaluation Criterion</b>	0	0	0	0
Relative Value Of Farmland To Be Converted (Scale of 0 to 100 Points)				

<b>PART VI (To be completed by Federal Agency)</b>	Maximum Points				
Site Assessment Criteria (These criteria are explained in 7 CFR 658.5(b))					
1. Area In Nonurban Use					
2. Perimeter In Nonurban Use					
3. Percent Of Site Being Farmed					
4. Protection Provided By State And Local Government					
5. Distance From Urban Builtup Area					
6. Distance To Urban Support Services					
7. Size Of Present Farm Unit Compared To Average					
8. Creation Of Nonfarmable Farmland					
9. Availability Of Farm Support Services					
10. On-Farm Investments					
11. Effects Of Conversion On Farm Support Services					
12. Compatibility With Existing Agricultural Use					
<b>TOTAL SITE ASSESSMENT POINTS</b>	160	0	0	0	0

<b>PART VII (To be completed by Federal Agency)</b>					
Relative Value Of Farmland (From Part V)	100	0	0	0	0
Total Site Assessment (From Part VI above or a local site assessment)	160	0	0	0	0
<b>TOTAL POINTS (Total of above 2 lines)</b>	260	0	0	0	0

Site Selected:	Date Of Selection	Was A Local Site Assessment Used? Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/>
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Reason For Selection: As we discussed per phone on 06/15/11 the entire project area lies within the Joplin, Missouri city limits and is exempt from FPPA

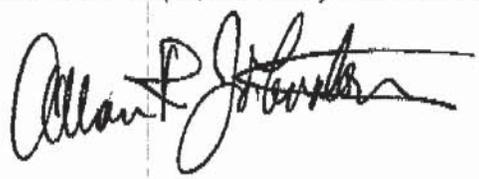
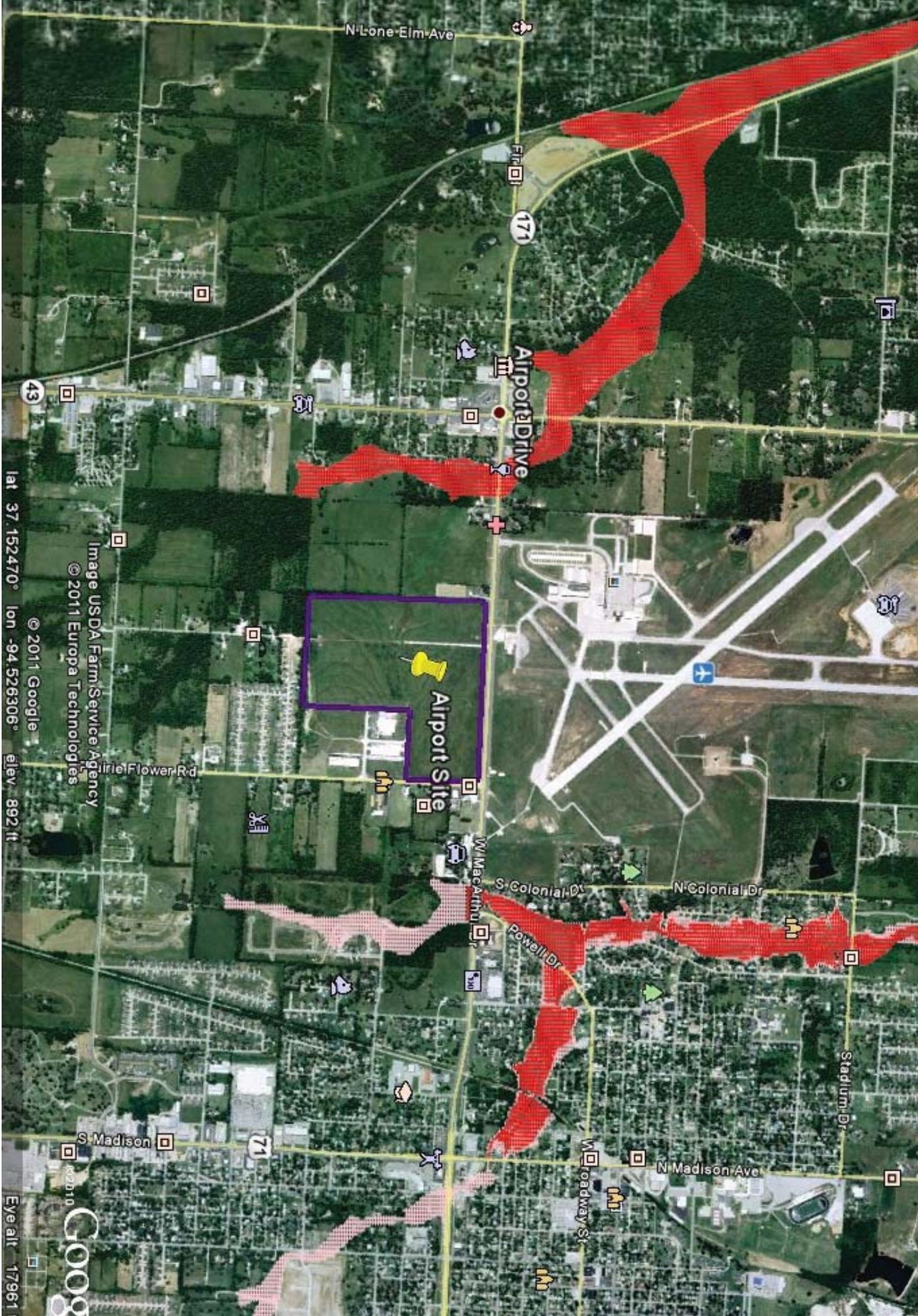


Figure 3, FEMA Flood Map from Google Earth

(See attached)



N Lone Elm Ave

171

Airport Drive

43

Airport Site

Image USDA Farm Service Agency  
© 2011 Europa Technologies

© 2011 Google

lat 37.152470° lon -94.526306° elev 892 ft

Iris Flower Rd

S Colonial Dr

N Colonial Dr

Powell Dr

W MacArthur Dr

Stadium Dr

S Madison

171

W Roadway St

N Madison Ave

GOOGLE

Eye alt 17961

Figure 4, Wetland delineation and EPA clearance

(See attached)

**From:** [Johnson.Vicky@epamail.epa.gov](mailto:Johnson.Vicky@epamail.epa.gov)  
**To:** [Horchem.Brad@epamail.epa.gov](mailto:Horchem.Brad@epamail.epa.gov); [Cory, Luke M NWK](mailto:Cory, Luke M NWK)  
**Cc:** [chamberlain.eliadora@epa.gov](mailto:chamberlain.eliadora@epa.gov); [daniels.jason@epa.gov](mailto:daniels.jason@epa.gov)  
**Subject:** Re: Fw: Temporary Housing near Joplin Airport (UNCLASSIFIED)  
**Date:** Monday, June 13, 2011 1:30:53 PM

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Hi Luke,  
I've reviewed the area in GIS and I don't have any concerns regarding your isolated determination. I have also called EPA HQ and they are fine with skipping the HQ review as long as we are in agreement. So, no problems here. Just cc me on the JD once you're done. Thanks,

Vicky Johnson  
Missouri Section 404/Wetlands Program Coordinator  
Watershed Planning and Implementation Branch  
Water, Wetlands and Pesticides Division  
Environmental Protection Agency, Region 7  
(913) 551-7564 phone  
(913) 551-9564 fax  
[johnson.vicky@epa.gov](mailto:johnson.vicky@epa.gov)

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|Brad  
Horchem/R7/USEPA/US |  
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| To: |  
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|chamberlain.eliadora@epa.gov, Vicky Johnson/R7/USEPA/US@EPA,  
daniels.jason@epa.gov |  
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|Fw: Temporary Housing near Joplin Airport  
(UNCLASSIFIED) |

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Luke called this morning and then sent the information below. Do we have enough information to make a decision whether the wetlands are isolated?

Brad Horchem  
Section Chief, Watershed Support, Wetlands & Stream Protection  
U.S. EPA Region VII, WWPD/WPIB/WWSP  
901 N. 5th Street  
Kansas City, KS 66101-2728  
Phone: 913.551.7137  
Cell: 816-392-6005  
Fax: 913.551.7863

----- Forwarded by Brad Horchem/R7/USEPA/US on 06/13/2011 12:44 PM -----

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| From: |  
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>-----  
-----|  
|"Cory, Luke M NWK"  
<Luke.M.Cory@usace.army.mil> |  
>-----

|----->  
| To: |  
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>-----  
-----|  
|Brad  
Horchem/R7/USEPA/US@EPA |  
>-----

|----->  
| Cc: |  
|----->

>-----  
-----|  
|"Duerksen, Lucius J NWK"  
<Lucius.J.Duerksen@usace.army.mil> |  
>-----

|----->  
| Date: |  
|----->

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-----|  
|06/13/2011 11:22 AM  
|  
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|----->  
| Subject: |  
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|Temporary Housing near Joplin Airport  
(UNCLASSIFIED) |

>-----

Classification: UNCLASSIFIED

Caveats: NONE

Brad,

I'm working on NEPA and Section 404 Issues at a proposed temporary housing site for the Joplin Tornado Recovery Mission. The subject site (see attached aerial photo) is a large field approximately 110 acres directly south of the Joplin Regional Airport, in the NE ¼ Sec 23, T 28 N, R 33 W in Jasper County, Missouri. This field is dominated by tall fescue and is hayed to provide forage for livestock. The field is also extensively terraced, which is visible on the attached aerial photo. There are numerous small seasonal wetlands (I would guess at least 20 or 30) scattered throughout the field. On average these small wetland areas would each measure approximately 0.01 acre in size (see attached photos). Walking around out there it appears that the terraces may have influenced the creation of the small wetland areas. The site is located on relatively flat ground with no flood plains, blue line channels or ephemeral stream channels present on the property. Based on the evaluation conducted by Lucius Duerksen and I onsite, the subject wetlands on this property would all be isolated for the purposes of Section 404. The work would involve the construction of temporary housing for the Joplin tornado victims. As a result some of these isolated wetlands would be filled to accommodate trailers, access roads, and utility hookups. On the area highlighted in purple on the attached map only the west side and the northeast part would be considered for temporary housing. The area in between these areas is located within a flight path for the airport, so no housing can be constructed there. This would reduce the proposed temporary housing area to about 50 to 60 acres. Based on this fact, many of these isolated wetlands will remain undisturbed.

Normally we send our isolated wetlands calls to HQ for a 30 day review. Lucius emailed Dave Olson, Corps HQ and Dave replied to contact EPA Region 7 to see if we could get an expedited review. Dave said if EPA Region 7 was okay with this isolated wetland call, there would be no reason to get Corps HQ involved.

Luke M. Cory  
Regulatory Team Leader  
U.S. Army Corps of Engineers  
Kanopolis Regulatory Field Office  
107 Riverside Drive  
Marquette, Kansas 67464  
(816) 389-3027  
<http://www.nwk.usace.army.mil/regulatory/regulatory.htm>

Classification: UNCLASSIFIED

Caveats: NONE [attachment "location map.jpg" deleted by Vicky Johnson/R7/USEPA/US] [attachment "RIMG0023.JPG" deleted by Vicky Johnson/R7/USEPA/US] [attachment "RIMG0076.JPG" deleted by Vicky Johnson/R7/USEPA/US]

Figure 5, USFWS ESA clearance

(See attached)

**From:** [Rick\\_Hansen@fws.gov](mailto:Rick_Hansen@fws.gov)  
**To:** [Cory, Luke M NWK](#)  
**Cc:** [Sternburg, Janet MVS External Stakeholder](#)  
**Subject:** Re: FW: Temporary Housing near Joplin Airport (UNCLASSIFIED)  
**Date:** Tuesday, June 14, 2011 12:07:07 PM  
**Attachments:** [location\\_map.jpg](#)  
[RIMG0023.JPG](#)  
[RIMG0076.JPG](#)  
[RIMG0088.JPG](#)  
[RIMG0038.JPG](#)  
[RIMG0050.JPG](#)  
[RIMG0079.JPG](#)  
[RIMG0087.JPG](#)

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Luke:

Wasn't sure that you hadn't retired after all these years. We are getting numerous requests like yours for comments under the ESA for projects in the Joplin area. I have reviewed your information and there are no federally listed species in the project area so there will be no effect. I don't have any comments on impacts to fish and wildlife resources. I am copying Janet Sternburg from the Missouri Department of Conservation so she knows that I have reviewed the project. If you have any questions, feel free to call me back. I assume I don't have to answer you telephone call from this morning about the project.

take care, Rick

Rick L. Hansen  
U.S. Fish and Wildlife Service  
Ecological Services  
101 Park DeVille Drive, Suite A  
Columbia, Missouri 65203  
573-234-2132, ext. 106  
fax 573-234-2181  
[rick\\_hansen@fws.gov](mailto:rick_hansen@fws.gov)

"Cory, Luke M  
NWK"  
<[Luke.M.Cory@usace.army.mil](mailto:Luke.M.Cory@usace.army.mil)>  
06/14/2011 10:03  
AM

To  
"Hansen, Rick MVS External  
Stakeholder" <[Rick\\_Hansen@fws.gov](mailto:Rick_Hansen@fws.gov)>  
cc

Subject  
FW: Temporary Housing near Joplin  
Airport (UNCLASSIFIED)

Classification: UNCLASSIFIED

Caveats: NONE

Hey Rick,

It's been a long time since we had to opportunity to work together. I'm working on NEPA and Section 404 Issues at a proposed temporary housing site for the Joplin Tornado Recovery Mission. The subject site (see attached aerial photo) is a large field approximately 110 acres directly south of the

Joplin Regional Airport. In the NE ¼ Sec 23, T 28 N, R 33 W in Jasper County, Missouri. This field is dominated by tall fescue and is hayed to provide forage for livestock. The field is also extensively terraced, which

is visible on the attached aerial photo. There are numerous small seasonal isolated wetlands (I would guess at least 20 or 30) scattered throughout the

field. On average these small wetland areas would each measure approximately

0.01 acre in size (see attached photos). Walking around out there it appears

that the terraces may have influenced the creation of the small wetland areas. The site is located on relatively flat ground with no flood plains, blue line channels or ephemeral stream channels present on the property.

There are no tress present within this field. Some trees do border the property (the tree are located on adjacent property) and poison ivy has encroached out into the field in these areas. The work would involve the construction of temporary housing for the Joplin tornado victims. Within the

temporary housing area there would be fill and excavation to accommodate trailers, access roads, and utility hookups. On the area highlighted in purple on the attached map only the west side and the northeast part would be

considered for temporary housing. The area in between these areas is located

within a flight path for the airport, so no housing can be constructed there.

This would reduce the proposed temporary housing area to about 50 to 60 acres. Based on this fact, many of these isolated wetlands will remain undisturbed.

I am requesting U.S. Fish and Wildlife Service (FWS) review of this project site for any potential Endangered Species issues or impacts. Also, does the

FWS have any concerns fish or wildlife issues with this proposed activity?

Please let me know if you have any specific issues or concerns and we will work with you to resolve them. Due to the desperate need for this project by

the people of Joplin who were impacted the tornado, a quick response would be

greatly appreciated. If you have any question or need any additional information, you can reach me by my cell phone at (202) 294-1076.

Luke M. Cory

Regulatory Team Leader

U.S. Army Corps of Engineers

Kanopolis Regulatory Field Office

107 Riverside Drive

Marquette, Kansas 67464

(202) 294-1076 (cell)

<http://www.nwk.usace.army.mil/regulatory/regulatory.htm>

Classification: UNCLASSIFIED  
Caveats: NONE

Classification: UNCLASSIFIED  
Caveats: NONE

(See attached file: location map.jpg)(See attached file: RIMG0023.JPG)(See attached file: RIMG0076.JPG)(See attached file: RIMG0088.JPG)(See attached file: RIMG0038.JPG)(See attached file: RIMG0050.JPG)(See attached file: RIMG0079.JPG)(See attached file: RIMG0087.JPG)

Figure 6, MDC Determination of No Effect

(See attached)

**From:** [Janet Sternburg](#)  
**To:** [Cory, Luke M NWK](#)  
**Cc:** [Hansen, Rick MVS External Stakeholder](#)  
**Subject:** RE: Joplin Recovery Temporary Housing Site (UNCLASSIFIED)  
**Date:** Wednesday, June 15, 2011 12:47:54 PM  
**Attachments:** [Arkansas Darter BMP.pdf](#)  
[karst.pdf](#)  
[streams.pdf](#)

---

Hello,

Thank you for seeking our input on state endangered species within the area proposed for temporary housing. A review of the Natural Heritage Database for the NE ¼ of Section 23, T28N, R 33W showed there are no state endangered species or species of conservation concern known to occur on the area. Based on the information in the database and your description of the area, it is unlikely there will be impacts to state-listed species.

A record of the federal candidate species Arkansas Darter was found in an unnamed creek about 1.5 miles northwest of the tract of land. The stream it occurs within passes southeast of the parcel. I agree with Rick Hansen's note that there should be no impacts to federal listed species. As appropriate, please follow water quality regulations for stormwater and wastewater on the project site to avoid any potential for negative runoff to the stream. For additional information, I have attached a best management practices document for the Arkansas darter,

Should you complete a Natural Heritage Review of the site using the internet tool, you will learn the site is within the known range of the greater prairie chicken, gray bats and karst topography. However, while the site is within the range of these species, we have no nearby records of greater prairie chickens or gray bats, and the habitat does not appear suitable for either species to occur on the area. Information on ways to avoid and minimize impacts to karst resources and streams are attached for your reference.

If and when the land is returned to its previous use, you may wish to follow practices to minimize the potential for introducing or spreading invasive plant species on the area. Some additional information on ways to minimize the potential for this to occur is available at:

<http://mdc.mo.gov/landwater-care/plant-management/invasive-plant-management>

Thank you for the opportunity to review your project and provide input on best management practices to avoid and minimize impacts to Missouri's resources.

Please let me know if you have questions on this response or if I may be of further assistance.

Janet

Janet Sternburg  
Policy Coordinator  
Missouri Dept. of Conservation  
P. O. Box 180  
Jefferson City, MO 65102  
573-522-4115 Ext. 3372  
Fax. 573-5264495  
janet.sternburg@mdc.mo.gov

UPS/FED Ex Address:  
2901 W. Truman Blvd.  
Jefferson City, MO 65109

From: Cory, Luke M NWK [<mailto:Luke.M.Cory@usace.army.mil>]  
Sent: Wednesday, June 15, 2011 8:44 AM  
To: Janet Sternburg  
Subject: Joplin Recovery Temporary Housing Site (UNCLASSIFIED)

Classification: UNCLASSIFIED  
Caveats: NONE

Janet,

I believe Rick Hanson, USFWS copied you on an email regarding this site. I am working on an environmental clearance for this site so it can be developed for FEMA temporary housing for the victims of the Joplin Tornado. I am requesting clearance from you for state listed endangered species.

The site is dominated by tall fescue and is currently used for hay production. Trees border the property along the south side and along the southwest side. There is also an old pond site and a drainage ditch along the south edge of the property. New home construction is occurring just south along the border of this property. This property was terraced in the past, this is visible on the attached aerial photograph. Numerous small wetland depressions were noted throughout the property, it was estimated that there were 20 to 30 of these and they each averaged 0.01 acre in size. Near the old pond site near the south side of the property are a lot of early growth trees, mostly green ash, with

some elm and hackberry. The wetlands were all isolated, so there are no Section 404 concerns. I have also included a few photographs of the site.

Please let me know as soon as possible if there are any State listed endangered species that could potentially be affected by the development of this property for temporary housing. If you have any question you can call me at (202) 294-1076.

Luke M. Cory  
U.S. Army Corps of Engineers  
(202) 294-1076 (cell)

Classification: UNCLASSIFIED  
Caveats: NONE

Luke:

Wasn't sure that you hadn't retired after all these years. We are getting numerous requests like yours for comments under the ESA for projects in the Joplin area. I have reviewed your information and there are no federally listed species in the project area so there will be no effect. I don't have any comments on impacts to fish and wildlife resources. I am copying Janet Sternburg from the Missouri Department of Conservation so she knows that I have reviewed the project. If you have any questions, feel free to call me back. I assume I don't have to answer you telephone call from this morning about the project.

take care, Rick

Rick L. Hansen  
U.S. Fish and Wildlife Service  
Ecological Services  
101 Park DeVillie Drive, Suite A  
Columbia, Missouri 65203  
573-234-2132, ext. 106  
fax 573-234-2181  
rick\_hansen@fws.gov <[mailto:rick\\_hansen@fws.gov](mailto:rick_hansen@fws.gov)>

"Cory, Luke M

NWK"

<Luke.M.Cory@usac

To

e.army.mil>

"Hansen, Rick MVS External

Stakeholder" <Rick\_Hansen@fws.gov <[mailto:Rick\\_Hansen@fws.gov](mailto:Rick_Hansen@fws.gov)> >

06/14/2011 10:03

cc

AM

Subject

FW: Temporary Housing near Joplin

Airport (UNCLASSIFIED)

Classification: UNCLASSIFIED

Caveats: NONE

Hey Rick,

It's been a long time since we had to opportunity to work together. I'm working on NEPA and Section 404 Issues at a proposed temporary housing site for the Joplin Tornado Recovery Mission. The subject site (see attached aerial photo) is a large field approximately 110 acres directly south of the Joplin Regional Airport. In the NE ¼ Sec 23, T 28 N, R 33 W in Jasper County, Missouri. This field is dominated by tall fescue and is hayed to

provide forage for livestock. The field is also extensively terraced,

which

is visible on the attached aerial photo. There are numerous small seasonal isolated wetlands (I would guess at least 20 or 30) scattered throughout the field. On average these small wetland areas would each measure approximately

0.01 acre in size (see attached photos). Walking around out there it appears that the terraces may have influenced the creation of the small wetland areas. The site is located on relatively flat ground with no flood plains, blue line channels or ephemeral stream channels present on the property.

There are no trees present within this field. Some trees do border the property (the trees are located on adjacent property) and poison ivy has encroached out into the field in these areas. The work would involve the construction of temporary housing for the Joplin tornado victims. Within the temporary housing area there would be fill and excavation to accommodate trailers, access roads, and utility hookups. On the area highlighted in purple on the attached map only the west side and the northeast part would be considered for temporary housing. The area in between these areas is located within a flight path for the airport, so no housing can be constructed there.

This would reduce the proposed temporary housing area to about 50 to 60 acres. Based on this fact, many of these isolated wetlands will remain undisturbed.

I am requesting U.S. Fish and Wildlife Service (FWS) review of this project site for any potential Endangered Species issues or impacts. Also, does the FWS have any concerns fish or wildlife issues with this proposed activity?

Please let me know if you have any specific issues or concerns and we will work with you to resolve them. Due to the desperate need for this project by the people of Joplin who were impacted the tornado, a quick response would be greatly appreciated. If you have any question or need any additional information, you can reach me by my cell phone at (202) 294-1076.

Luke M. Cory

Regulatory Team Leader

U.S. Army Corps of Engineers

Kanopolis Regulatory Field Office

107 Riverside Drive

Marquette, Kansas 67464

(202) 294-1076 (cell)

<http://www.nwk.usace.army.mil/regulatory/regulatory.htm>  
<<http://www.nwk.usace.army.mil/regulatory/regulatory.htm>>

Classification: UNCLASSIFIED

Caveats: NONE

Classification: UNCLASSIFIED

Caveats: NONE

(See attached file: location map.jpg)(See attached file: RIMG0023.JPG)(See attached file: RIMG0076.JPG)(See attached file: RIMG0088.JPG)(See attached

file: RIMG0038.JPG)(See attached file: RIMG0050.JPG)(See attached file:

RIMG0079.JPG)(See attached file: RIMG0087.JPG)

Figure 7, SHPO Determination of No Effect

(See attached)

**From:** [Deel, Judith](#)  
**To:** [Meade, Timothy M NWK](#)  
**Cc:** [Cory, Luke M NWK](#); [Duerksen, Lucius J NWK](#)  
**Subject:** RE: Joplin Temporary Housing SHPO Coordination (UNCLASSIFIED)  
**Date:** Tuesday, June 14, 2011 3:10:20 PM

---

Tim, SHPO has reviewed the information provided concerning the approximately 40 acre tract located due south of the Joplin Regional Airport and Highway 171 designated for temporary housing. We concur with your determination that there is a very low potential for the occurrence of archaeological sites. There will be "no historic properties affected" and we have no objections to the initiation of project related activities.

Judith Deel  
Compliance Coordinator  
State Historic Preservation Office  
P.O. Box 176  
Jefferson City, Missouri 65102  
[judith.deel@dnr.mo.gov](mailto:judith.deel@dnr.mo.gov)  
573/751-7862 (phone)

-----Original Message-----

From: Meade, Timothy M NWK [<mailto:Timothy.M.Meade@usace.army.mil>]  
Sent: Tuesday, June 14, 2011 2:46 PM  
To: Deel, Judith  
Cc: Cory, Luke M NWK; Duerksen, Lucius J NWK  
Subject: Joplin Temporary Housing SHPO Coordination (UNCLASSIFIED)

Classification: UNCLASSIFIED  
Caveats: NONE

Judith,

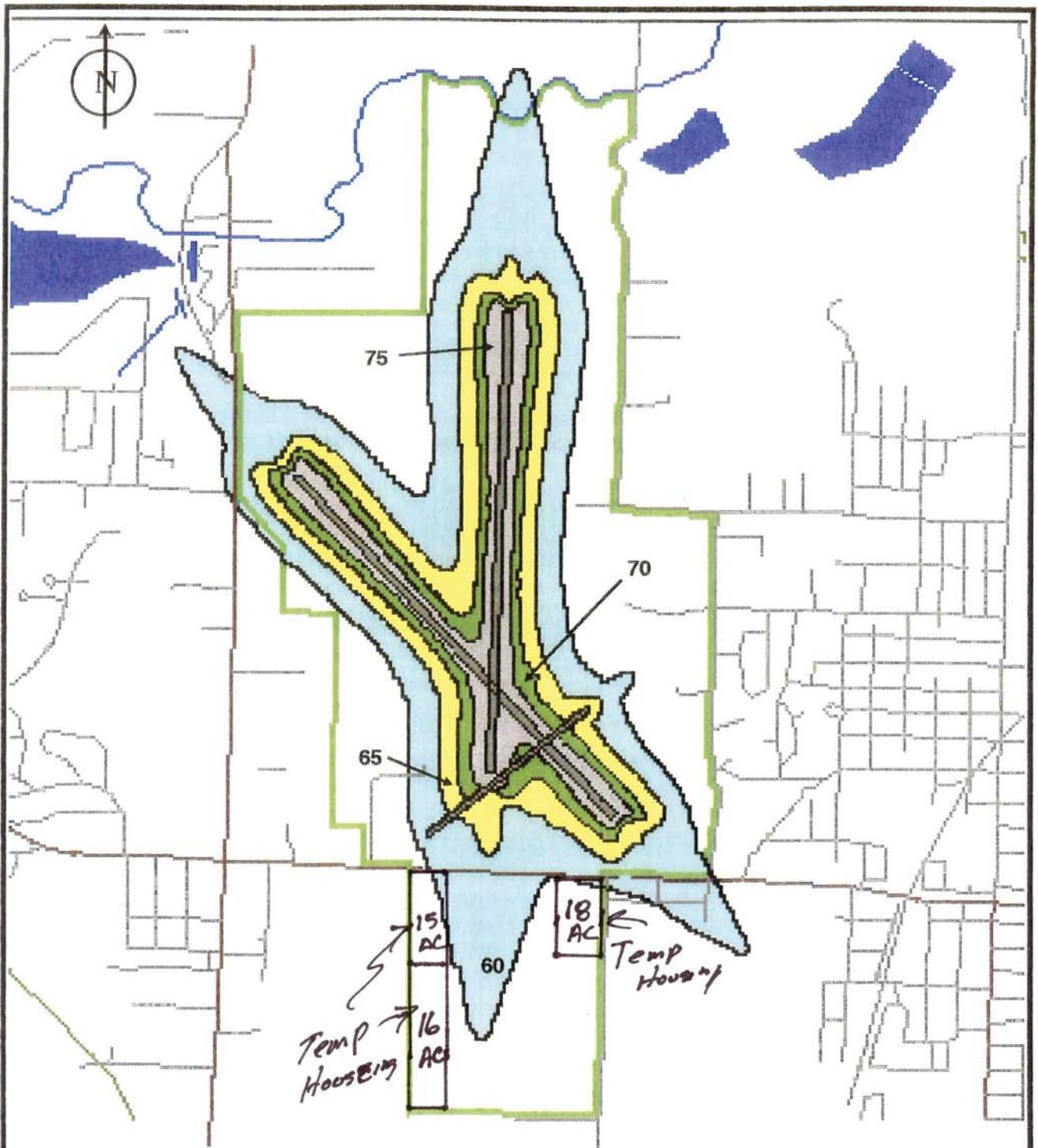
Attached is the coordination letter for the proposed Joplin Regional Airport temporary housing area. Please let me know if you have any questions.

Tim

Classification: UNCLASSIFIED  
Caveats: NONE

FAA Noise Map of subject site

(See attached)



**Legend**

- 60 DNL
- 65 DNL
- 70 DNL
- 75 DNL
- Airport Boundary

Not to scale



**FIGURE 4-1**  
Existing Noise Contours  
Joplin Master Plan  
Update EA

## Hazardous Sites Map

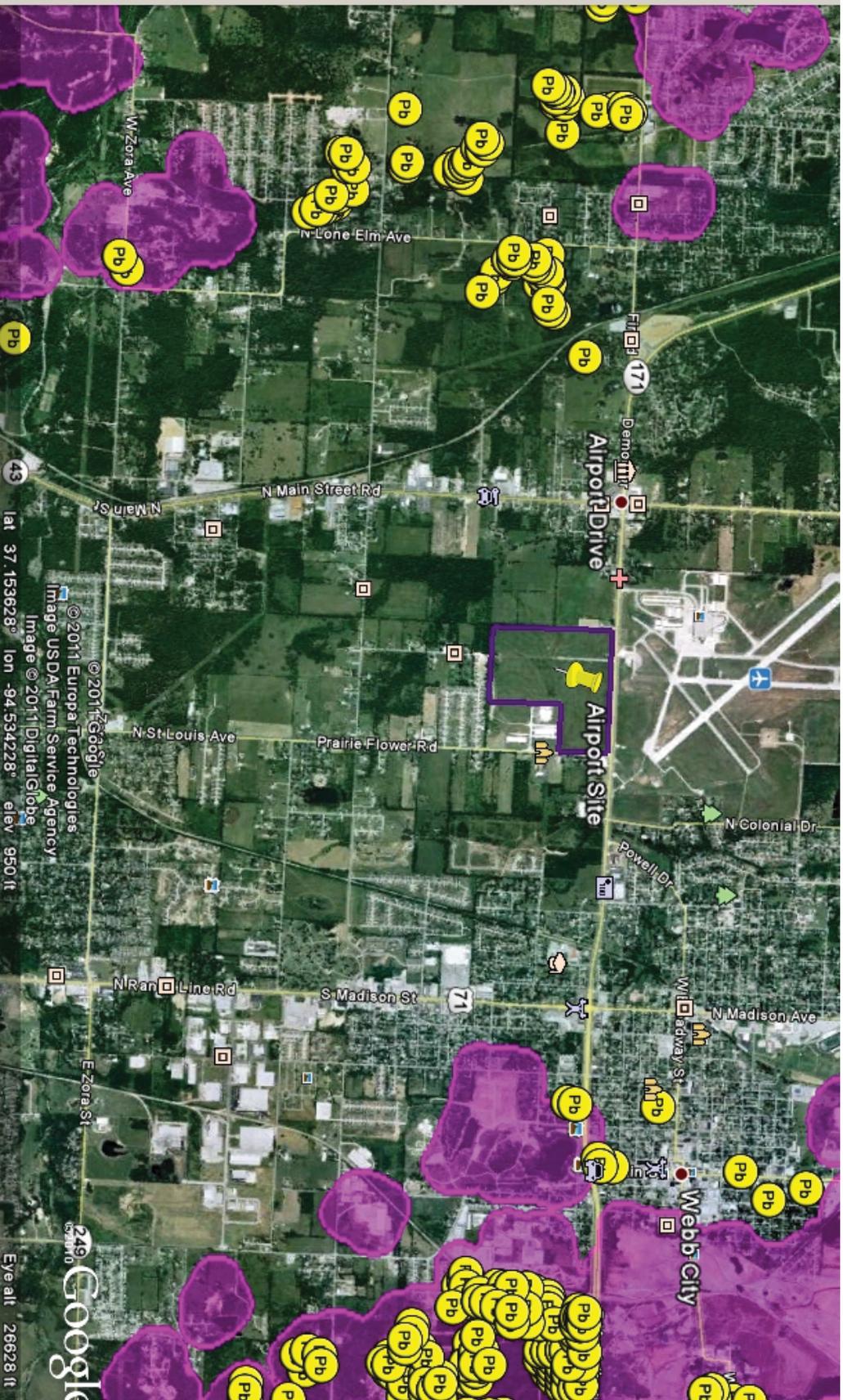
(See attached)

**Places**

- RZ EPA MCP Staging Area
- NGA Damage Level Asses May 31, 2011
- Tornado Pathway
- Division Line
- HHW Debris Removal
- EPA Reporting Database
- Facility Rapid Needs A...
- Reconnaissance
- Aerial Imagery
- City of Joplin Data
- Environmental
  - Soil Screening Result (>= 400 ppm Lead)
  - Mine Waste Areas
  - Cadastrial Data
- Additional Information
  - W-01-002
    - 0.004 crane walk
    - 0.001 collection line
  - 501-010
    - 0.005 crane walk
    - 0.003 collection line
  - 501-011
    - 0.008 crane walk
    - 0.005 collection line
  - W-01-004
    - 0.006 crane walk
    - 0.003 collection line

~GESAD kmz

**Layers** Earth Gallery



Missouri DNR clearance

(See attached)

**From:** [Allen, Brian](#)  
**To:** [Cory, Luke M NWK](#)  
**Subject:** RE: Joplin Tornado Relief (UNCLASSIFIED)  
**Date:** Thursday, June 16, 2011 3:11:51 PM

---

Luke - I have cross-checked your location against our known layers/locations for ASTs, USTs, Brownfields, CERCLA, SQG/LQG, Federal Facilities and have ruled-out any concerns on this location that would restrict its use to proposed temporary housing. If I can be of further assistance, you are encouraged to contact me at 573-644-3224

Brian Allen  
Chief, Emergency Response/Field Services  
Environmental Services Program  
Missouri Department of Natural Resources  
573.526.3380  
[brian.allen@dnr.mo.gov](mailto:brian.allen@dnr.mo.gov)

---

From: Cory, Luke M NWK [<mailto:Luke.M.Cory@usace.army.mil>]  
Sent: Thursday, June 16, 2011 2:05 PM  
To: Allen, Brian  
Subject: Joplin Tornado Relief (UNCLASSIFIED)

Classification: UNCLASSIFIED  
Caveats: NONE

Brian,

I've attached an aerial photograph of the Joplin Airport temporary housing site. I also attached the google earth aerial that show the hazardous site in that area. The site location is directly south of the Joplin Regional Airport in the NE ¼ Sec 23, T 28 N, R 33 W in Jasper County, Missouri. Thank you for all your help and for checking this so quickly.

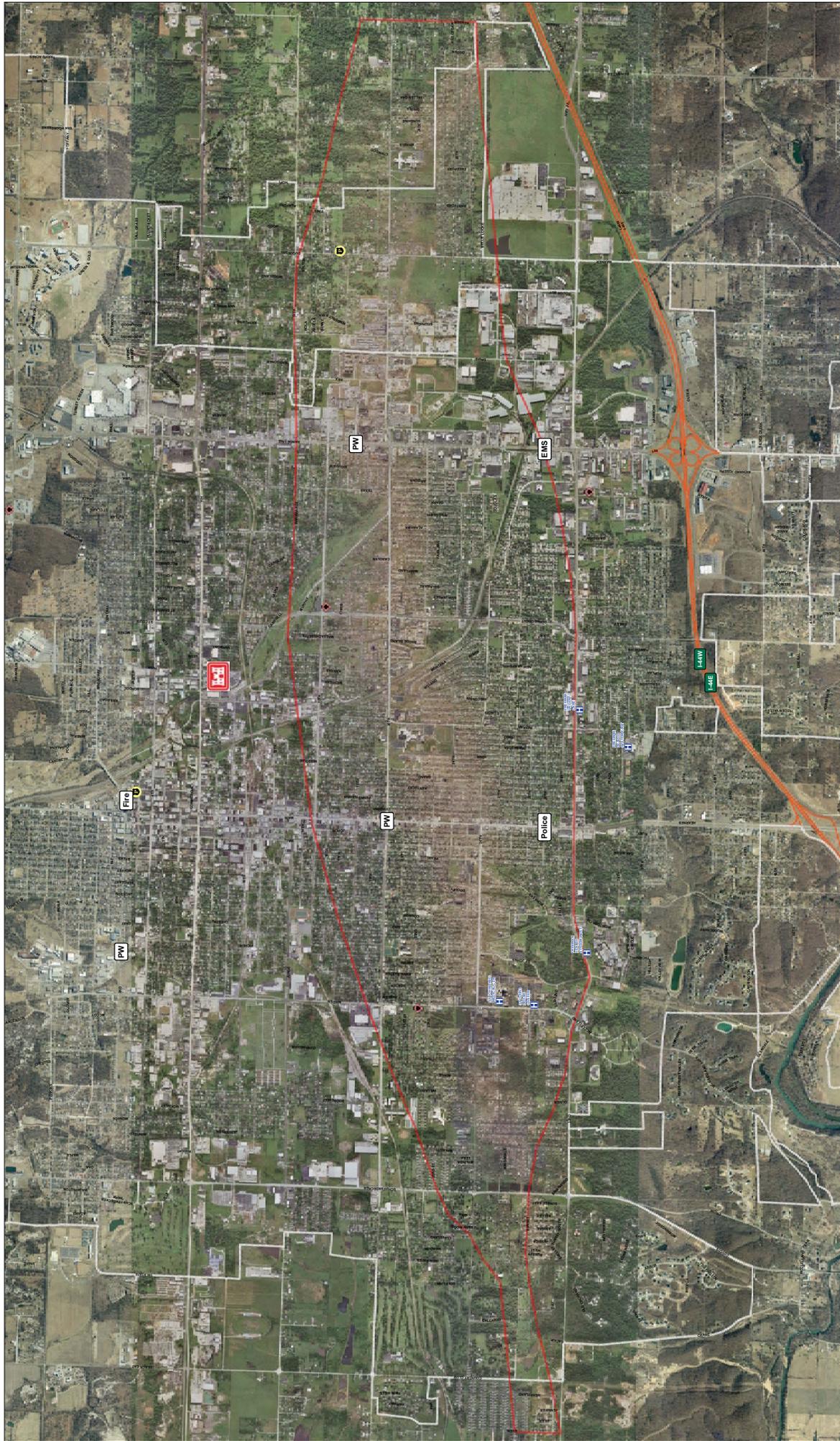
Luke M. Cory  
U.S. Army Corps of Engineers  
(202) 294-1076

Classification: UNCLASSIFIED  
Caveats: NONE

Photographs of Joplin, Missouri Tornado after the F5 Tornado

(See attached)

# JOPLIN MISSOURI - POST TORNAO EVENT MAY 2011



AERIAL PHOTOGRAPHY COURTESY OF THE CITY OF JOPLIN

- RFO
- COMMAND POST
- HOSPITAL/MEDICAL FACILITY
- POLICE
- FIRE STATIONS
- CITY BOUNDARY